PSYCHOLOGY

History-Literature in English-Psychology

S5

Teacher's Guide

Experimental Version

FOREWORD

Dear Teacher,

Rwanda Basic Education Board (REB) is pleased to present Psychology Teacher's Guide for Senior five, History-Literature-Psychology Combination. It was designed based on the Senior Five Student Book to serve as a guide to teaching and learning of Psychology subject in general education.

The Rwandan education philosophy is to ensure that young people at every level of education achieve their full potential in terms of relevant knowledge, skills and appropriate attitudes that prepare them to be well integrated in society and exploit employment opportunities. In line with efforts to improve the quality of education, the government of Rwanda emphasizes the importance of aligning teaching and learning materials with the curriculum to facilitate the learning process.

Many factors influence what students learn, how well they learn and the competences they acquire. Those factors include the relevance of the specific content, the quality of teacher's pedagogical approaches, the assessment strategies, and the instructional materials available. Special attention was paid to the activities that facilitate the learning process in which students can develop ideas and make new discoveries during concrete activities carried out individually or with peers.

This contrasts with traditional learning theories which view learning mainly as a process of acquiring knowledge from the more knowledgeable who is mostly the teacher. In competence-based approach, learning is considered as a process of active building and developing of knowledge and understanding, skills, values and attitudes by the learner, where concepts are mainly introduced by an activity, situation or scenario that helps the learner to construct knowledge, develop skills and acquire positive attitudes and values.

With your facilitation, students learning psychology subject in senior five will gain basic knowledge, skills, attitudes and values that they need to understand different personality traits and how they influence behavior, thought, motivation, and emotion in a human being; and use theories and principles of learning to deal with behavioral changes. Having understanding on individual differences due to the personality, will help them to treat each person accordingly, avoid discrimination which may be based on different personality traits and sensitize people to respect each person regardless his/her individual personality.

As a facilitator, your role is to:
- Plan your lessons and prepare appropriate teaching materials.

- Organize group discussions for learners considering the importance of social constructivism suggesting that learning occurs more effectively when the learner works collaboratively with more knowledgeable and experienced people.
- Engage learners through active learning methods such as inquiry methods, group discussions, research, investigative activities and group and individual work activities.
- Provide supervised opportunities for learners to develop different competences by giving tasks which enhance critical thinking, problem solving, research, creativity and innovation, communication and cooperation.
- Support and facilitate the learning process by valuing learners' contributions in the class activities.
- Guide learners towards the harmonization of their findings.
- Explain different concepts for clear understanding of the content.
- Encourage individual, peer and group evaluation of the work done in the classroom and use appropriate competence-based assessment approaches and methods.
- Create more learning and assessment activities in supplement of those provided in the student book.
- To facilitate you in your teaching activities, the content of this teacher's guide is self-explanatory so that you can easily use it. It is divided into 3 parts:
- The part 1: Explains the structure of this book and gives you methodological guidance;
- The part 2: Gives a sample lesson plan as reference for your lesson planning process;
- The part 3: Provides guidance on teaching for each lesson. Even though this guide contains answers for all activities given in the student's book, you are requested to work through each question and activity before judging student's findings.

I wish to sincerely appreciate all people who contributed towards the development of this teacher`s guide, particularly REB staff who organized the whole process from its inception.

Special gratitude goes to the lecturers and TTC tutors who diligently worked for the successful completion of this guide. Any comment or contribution would be welcome for the improvement of this teacher's guide for the next edition.

Dr. MBARUSHIMANA Nelson

Director General, REB

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MURUNGI Joan,

Head of CTLRD, REB

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PART I. GENERAL INTRODUCTION

1.1. About the Teacher's guide

This book is a teacher's guide for Psychology, Senior Five in general education". It is designed to accompany Senior Five student's book and intends to help teachers in the implementation of the curriculum. As the name says, it is a guide that teachers can refer to, when preparing their lessons. Teachers may prefer to adopt the guidance provided but they are also expected to be more creative and consider their specific classes 'contexts and prepare accordingly.

1.2. The structure of the guide

This section presents the overall structure, the unit and lesson structure to help teachers to understand the different sections of this guide and what they will find in each section.

1.2.1. Overall structure

The teacher's guide of Psychology is composed of three parts:

Part I: General Introduction

This part provides general guidance on how to develop the generic competences, how to integrate cross cutting issues, how to cater for learners with special educational needs, active methods and techniques of teaching Psychology and guidance on assessment.

Part II: Sample lesson plan

This part provides a sample lesson plan, developed and designed to help the teacher develop their own lesson plans.

Part III: Unit development

This is the core part of the guide. Each unit is developed following the structure below.

Structure of a unit

1. **Unit title**

2. **Key unit competence**

3. **Prerequisites**

This section indicates knowledge, skills and attitudes required for the success of the unit. The competence-based approach calls for connections between units/topics within a subject and interconnections between different subjects.

The teacher will find an indication of those prerequisites and guidance on how to establish connections.

4. Cross-cutting issues to be addressed

This section suggests cross cutting issues that can be integrated depending on the unit content. It provides guidance on how to come up with the integration of the issue. Note that the issue indicated is a suggestion; teachers are free to take another cross-cutting issue taking into consideration the learning environment.

5. Guidance on the introductory activity

Each unit starts with an introductory activity in the learner's book. This section of the teacher's guide provides guidance on how to conduct this activity and related answers. Note that learners may not be able to find the right solution, but they are invited to predict possible solutions or answers. Solutions are provided by learners gradually through discovery activities organized at the beginning of lessons or during the lesson.

6. List of lessons

This section presents in a table suggestion on the list of lessons, lesson objectives and duration for each lesson. Each lesson is then developed.

7. End of each unit

At the end of each unit, the teacher's guide provides the following sections:

- **Additional information** which provides additional content compared to the student's book for the teacher to have a deeper understanding of the topic;
- **End unit assessment** which provides the answers to questions of end unit assessment in the textbook.
- **Additional activities:** remedial, consolidation and extended activities). The purpose of these activities is to accommodate each learner (slow, average and gifted) based on end unit assessment results.

The guide ends with references.

1.2.2. Structure of a lesson

After the lesson title, each lesson is made of the following sections:

1. Learning objective

2. Teaching resources

This section suggests the teaching aids or other resources needed in line with the activities to achieve the learning objectives.

Teachers are encouraged to replace the suggested teaching aids by the available ones in their respective schools and based on learning environment.

3. **Prerequisites/Revision/Introduction**

This section gives a clear guidance to the teacher on how to start the lesson.

4. **Learning activities:** this section provides a short description of the methodology and any important aspect to consider. It provides also answers to learning activities with cross reference to text book.

5. **Application activities:** this provides questions and answers for application activities

1.3. Methodological guidance

1.3.1 Developing competences

Since 2015 Rwanda shifted from a knowledge based to a competence-based curriculum for pre-primary, primary, secondary education. This called for changing the way of learning by shifting from teacher centred to a learner centred approach. Teachers are not only responsible for knowledge transfer but also for fostering students' learning achievement and creating safe and supportive learning environment. It implies also that students have to demonstrate how they are able to transfer the acquired knowledge, skills, values and attitudes to new situations.

The competence-based curriculum uses an approach of teaching and learning based on discrete skills rather than dwelling on only knowledge or the cognitive domain of learning. It focuses on what learner can do rather than what learner knows. Students develop competences through subject unit with specific learning objectives broken down into knowledge, skills and attitudes/ values through learning activities.

In addition to the competences related to Psychology, students also develop generic competences which should   promote the development of the higher order thinking skills. Generic competences are developed throughout all units as follows:

Generic competences	Ways of developing generic competences
Critical thinking	All activities that require students to interpret, analyse, compare and contrast, evaluate ideas, beliefs and attitudes; etc. have a common factor of developing critical thinking into students
Creativity and innovation	All activities that require students to design a poster, create a scenario that illustrates or helps to explain psychological concepts; write a poem describing depending to his/her personality; etc. have a common character of developing creativity and innovation into students.
Research and problem solving	All activities that require students to make a research and apply their knowledge to solve real-life problems have a character of developing research and problem solving into students.
Communication	All activities that require students to discuss either in groups or in the whole class, write and present findings, debate, develop communication skills into students.
Co-operation, interpersonal relations and life skills	All activities that require students to work in pairs or in groups have character of developing cooperation and life skills among students.
Lifelong learning	All activities that are connected with research have a common character of developing into students a curiosity of applying the knowledge learnt in a range of situations. The purpose of such kind of activities is for enabling students to become life-long learners who can adapt to the fast-changing world and the uncertain future by taking initiative to update knowledge and skills with minimum external support.

1.3.2 Addressing cross cutting issues

Among the changes brought by the competence-based curriculum there is the integration of cross cutting issues as an integral part of the teaching learning process as they relate to and must be considered within all subjects to be appropriately addressed. The eight cross cutting issues identified in the national curriculum framework are: *Comprehensive Sexuality Education, Environment and Sustainability, Financial Education, Genocide studies, Gender education, Inclusive Education, Peace and Values Education, and Standardization Culture.*

Some cross-cutting issues may seem specific to particular learning units/ subjects but the teacher need to address all of them whenever an opportunity arises. In addition, students should always be given an opportunity to address these cross-cutting issues during the learning process both within and out of the classroom.

Below are examples of how crosscutting issues can be addressed:

Cross-Cutting Issue	Ways of addressing cross-cutting issues
Comprehensive Sexuality Education: The primary goal of introducing Comprehensive Sexuality Education program in schools is to equip children, adolescents, and young people with knowledge, skills and values in an age appropriate and culturally gender sensitive manner so as to enable them to make responsible choices about their sexual and social relationships, explain and clarify feelings, values and attitudes, and promote and sustain risk reducing behaviour.	Using different scenarios, illustrations related to personality traits, alcohol and drug abuse, unwanted pregnancies, and Sexually Transmitted Diseases (STDs), Psychology teachers should lead students to discuss the risky behaviours during adolescence for them to take informed decisions.
Environment and Sustainability: Integration of Environment, Climate Change and Sustainability in the curriculum focuses on and advocates for the need to balance economic growth, society well-being and ecological systems. Students need basic knowledge from the natural sciences, social sciences, and humanities to understand to interpret principles of sustainability.	Based on the impact of physical environment on individual personality and learning, psychology teachers will help students to discuss topics related to that interaction for them to adopt behavioural change that protect environment starting by homes.

Gender education: At school, gender will be understood as family complementarities, gender roles and responsibilities, the need for gender equality and equity, gender stereotypes, gender sensitivity, etc.	Psychology teachers should address gender education by helping students understand the key role that the family and school can play to have a society free of gender stereotypes through distribution of tasks/responsibilities at home and school and through practices that address gender inequalities in different context.
Inclusive Education: Inclusion is based on the right of all students to a quality and equitable education that meets their basic learning needs and understands the diversity of backgrounds and abilities as a learning opportunity.	The topics related to personality and learning theories, Psychology teachers will identify/recognize students with special educational needs and accommodate them through adapted teaching and learning resources and techniques during the teaching-learning process and assessment tasks.
Peace and Values Education: Peace and Values Education (PVE) is defined as education that promotes social cohesion, positive values, including pluralism and personal responsibility, empathy, critical thinking and action in order to build a more peaceful society.	Through a given lesson, a teacher should: Set a learning objective which is addressing positive attitudes and values, Encourage students to develop the culture of tolerance during discussion and to be able to instil it in colleagues and cohabitants; Encourage students to respect ideas from others.
Standardization Culture: Standardization Culture in Rwanda will be promoted through formal education and plays a vital role in terms of health improvement, economic growth, industrialization, trade and general welfare of the people through the effective implementation of Standardization, Quality Assurance, Metrology and Testing.	The knowledge and skills gained from the topic of personality and learning theories, will develop in students the value of respecting people's individual differences that help them in decision making.

1.3.3 Guidance on how to help students with special education needs in classroom

In the classroom, students learn in different way depending to their learning pace, needs or any other special problem they might have. However, the teacher has the responsibility to know how to adopt his/her methodologies and approaches in order to meet the learning needs of each student in the classroom. Also teachers need to understand that student with special needs, need to be taught differently or need some accommodations to enhance the learning environment. This will be done depending to the subject and the nature of the lesson.

In order to create a well-rounded learning atmosphere, teachers need to:

 – Remember that students learn in different ways so they have to offer a variety of activities (e.g. role-play, music and singing, word games and quizzes, and outdoor activities);

 – Maintain an organized classroom and limits distraction. This will help students with special needs to stay on track during lesson and follow instruction easily;

 – Vary the pace of teaching to meet the needs of each student. Some students process information and learn more slowly than others;

 – Break down instructions into smaller, manageable tasks. Students with special needs often have difficulty understanding long-winded or several instructions at once. It is better to use simple, concrete sentences in order to facilitate them understand what you are asking.

 – Use clear consistent language to explain the meaning (and demonstrate or show pictures) if you introduce new words or concepts;

 – Make full use of facial expressions, gestures and body language;

 – Pair a student who has a disability with a friend. Let them do things together and learn from each other. Make sure the friend is not over protective and does not do everything for the one with disability. Both students will benefit from this strategy;

 – Use multi-sensory strategies. As all students learn in different ways, it is important to make every lesson as multi-sensory as possible. Students with learning disabilities might have difficulty in one area, while they might excel in another. For example, use both visual and auditory cues.

 – Below are general strategies related to each main category of disabilities and how to deal with every situation that may arise in the classroom. However, the list is not exhaustive because each student is unique with different needs and that should be handled differently.

Strategy to help students with developmental impairment
- Use simple words and sentences when giving instructions;
- Use real objects that students can feel and handle. Rather than just working abstractly with pen and paper;
- Break a task down into small steps or learning objectives. The student should start with an activity that she/he can do already before moving on to something that is more difficult;
- Gradually give the student less help;
- Let the student with disability work in the same group with those without disability.

Strategy to help students with visual impairment
- Help students to use their other senses (hearing, touch, smell and taste) and carry out activities that will promote their learning and development;
- Use simple, clear and consistent language;
- Use tactile objects to help explain a concept;
- If the student has some sight, ask him/her what he/she can see;
- Make sure the student has a group of friends who are helpful and who allow him/her to be as independent as possible;
- Plan activities so that students work in pairs or groups whenever possible;

Strategy to help students with hearing disabilities or communication difficulties
- Always get the student's attention before you begin to speak;
- Encourage the student to look at your face;
- Use gestures, body language and facial expressions;
- Use pictures and objects as much as possible.
- Keep background noise to a minimum.

Strategies to help students with physical disabilities or mobility difficulties
- Adapt activities so that students who use wheelchairs or other mobility aids, can participate.
- Ask parents/caregivers to assist with adapting furniture e.g. the height of a table may need to be changed to make it easier for a student to reach it or fit their legs or wheelchair under;
- Encourage peer support when needed;
- Get advice from parents or a health professional about assistive devices if the student has one.

Adaptation of assessment strategies

At the end of each unit, the teacher is advised to provide additional activities to help students achieve the key unit competence. These assessment activities are for remedial, consolidation and extension designed to cater for the needs of all categories of students; slow, average and gifted students respectively. Therefore, the teacher is expected to do assessment that fits individual students.

Remedial activities	After evaluation, slow students are provided with lower order thinking activities related to the concepts learnt to facilitate them in their learning. These activities can also be given to assist deepening knowledge acquired through the learning activities for slow students.
Consolidation activities	After introduction of any concept, a range number of activities can be provided to all students to enhance/ reinforce learning.
Extended activities	After evaluation, gifted and talented students can be provided with high order thinking activities related to the concepts learnt to make them think deeply and critically. These activities can be assigned to gifted and talented students to keep them working while other students are getting up to required level of knowledge through the learning activity.

1.3.4. Guidance on assessment

Assessment is an integral part of teaching and learning process. The main purpose of assessment is for improvement of learning outcomes. Assessment for learning/ Continuous/ formative assessment intends to improve students' learning and teacher's teaching whereas assessment of learning/summative assessment intends to improve the entire school's performance and education system in general.

Continuous/ formative assessment

It is an on-going process that arises during the teaching and learning process. It includes lesson evaluation and end of sub unit assessment. This formative assessment should play a big role in teaching and learning process. The teacher should encourage individual, pair and group evaluation of the work done in the classroom and uses appropriate competence-based assessment approaches and methods.

Formative assessment is used to:

- Determine the extent to which learning objectives are being achieved and competences are being acquired and to identify which students need remedial interventions, reinforcement as well as extended activities. The application activities are developed in the student book and they are designed to be given as remedial, reinforcement, end lesson assessment, homework or assignment

- Motivate students to learn and succeed by encouraging students to read, or learn more, revise, etc.

- Check effectiveness of teaching methods in terms of variety, appropriateness, relevance, or need for new approaches and strategies. Psychology teachers need to consider various aspects of the instructional process including appropriate language levels, meaningful examples, suitable methods and teaching aids/ materials, etc.

- Help students to take control of their own learning.

In teaching Psychology, formative or continuous assessment should compare performance against instructional objectives. Formative assessment should measure the student's ability with respect to a criterion or standard. For this reason, it is used to determine what students can do, rather than how much they know.

Summative assessment

The assessment can serve as summative and informative depending to its purpose. The end unit assessment will be considered summative when it is done at end of unit and want to start a new one.

It will be formative assessment, when it is done in order to give information on the progress of students and from there decide what adjustments need to be done.

The assessment done at the end of the term, end of year, is considered as summative assessment so that the teacher, school and parents are informed of the achievement of educational objective and think of improvement strategies. There is also end of level/ cycle assessment in form of national examinations.

When carrying out assessment?

Assessment should be clearly visible in lesson, unit, term and yearly plans.

- Before learning (diagnostic): At the beginning of a new unit or a section of work; assessment can be organized to find out what students already know / can do, and to check whether the students are at the same level.

- During learning (formative/continuous): When students appear to be having difficulty with some of the work, by using on-going assessment (continuous). The assessment aims at giving students support and feedback.
- After learning (summative): At the end of a section of work or a learning unit, the Psychology Teacher has to assess after the learning. This is also known as Assessment of Learning to establish and record overall progress of students towards full achievement. Summative assessment in Rwandan schools mainly takes the form of written tests at the end of a learning unit or end of the month, and examinations at the end of a term, school year or cycle.

Instruments used in assessment.

- **Observation:** This is where the Psychology teacher gathers information by watching students interacting, conversing, working, playing, etc. A teacher can use observations to collect data on behaviours that are difficult to assess by other methods such as attitudes, values, and generic competences and intellectual skills. It is very important because it is used before the lesson begins and throughout the lesson since the teacher has to continue observing each and every activity.

- **Questioning**

a) Oral questioning: a process which requires a student to respond verbally to questions

b) Class activities/ exercise: tasks that are given during the learning/ teaching process

c) Short and informal questions usually asked during a lesson

d) Homework and assignments: tasks assigned to students by their teachers to be completed outside of class.

1.3.5. Teaching methods and techniques that promote active learning

The different student learning styles mentioned above can be catered for, if the teacher uses active learning whereby learners are really engaged in the learning process.

What is Active learning?

Active learning is a pedagogical approach that engages students in doing things and thinking about the things they are doing. In active learning, learners are encouraged to bring their own experience and knowledge into the learning process.

The role of the teacher in active learning

- The teacher engages learners through active learning methods such as inquiry methods, group discussions, research, investigative activities and group and individual work activities.
- He/she encourages individual, peer and group evaluation of the work done in the classroom and uses appropriate competence-based assessment approaches and methods.
- He provides supervised opportunities for learners to develop different competences by giving tasks which enhance critical thinking, problem solving, research, creativity and innovation, communication and cooperation.
- Teacher supports and facilitates the learning process by valuing learners' contributions in the class activities.

The role of learners in active learning

Learners are key in the active learning process. They are not empty vessels to fill but people with ideas, capacity and skills to build on for effective learning. A learner engaged in active learning:

- Communicates and shares relevant information with other learners through presentations, discussions, group work and other learner-centred activities (role play, case studies, project work, research and investigation)
- Actively participates and takes responsibility for their own learning
- Develops knowledge and skills in active ways
- Carries out research/investigation by consulting print/online documents and resourceful people, and presents their findings
- Ensures the effective contribution of each group member in assigned tasks through clear explanation and arguments, critical thinking, responsibility and confidence in public speaking
- Draws conclusions based on the findings from the learning activities.

Main steps for a lesson in active learning approach

All the principles and characteristics of the active learning process highlighted above are reflected in steps of a lesson as displayed below. Generally, the lesson is divided into three main parts whereby each one is divided into smaller steps to make sure that learners are involved in the learning process. Below are those main part and their small steps:

1. Introduction

Introduction is a part where the teacher makes connection between the current and previous lesson through appropriate technique. The teacher opens short discussions to encourage learners to think about the previous learning experience and connect it with the current instructional objective. The teacher reviews the prior knowledge, skills and attitudes which have a link with the new concepts to create good foundation and logical sequencings.

2. Development of the new lesson

The development of a lesson that introduces a new concept will go through the following small steps: discovery activities, presentation of learners' findings, exploitation, synthesis/summary and exercises/application activities, explained below:

▪ Discovery activity

Step 1

- The teacher discusses convincingly with students to take responsibility of their learning
- He/she distributes the task/activity and gives instructions related to the tasks (working in groups, pairs, or individual to instigate collaborative learning, to discover knowledge to be learned)

Step 2

- The teacher let the students work collaboratively on the task.
- During this period the teacher refrains to intervene directly on the knowledge
- He/she then monitors how the students are progressing towards the knowledge to be learned and boost those who are still behind (but without communicating to them the knowledge).

▪ Presentation of learners' productions

- In this episode, the teacher invites representatives of groups to presents the students' productions/findings.
- After three/four or an acceptable number of presentations, the teacher decides to engage the class into exploitation of the students' productions.

▪ Exploitation of learner's productions

- The teacher asks the students to **evaluate the productions**: which ones are correct, incomplete or false
- The teacher **judges the logic of the students' products, corrects** those which are false, **completes** those which are incomplete, and confirms the correct ones.

- **▪ Summary/conclusion and examples**
  - The **teacher summarises** the **learned knowledge** and gives examples which illustrate the learned content.

3. Assessment

In this step the teacher asks some questions/application activities to assess achievement of instructional objective. During assessment activity, learners work individually on the task/activity. The teacher avoids intervening directly. In fact, results from this assessment inform the teacher on next steps for the whole class and individuals.   The teacher ensures that learners make connections between what they have learnt and the real life where applicable. In some cases, the teacher can end with a homework assignment.

PART II: SAMPLE LESSON PLAN

The following is the plan of a lesson.

School Name: XXXXXX   Teacher's Name: XXXXXX

Term	Date:	Subject	Class	Unit No	Lesson Number	Duration	Class size
2	.../..../...	Psychology	S5 HLP	6	1 out of 5	80 min	….

Types of special Educational needs to be catered for in this lesson and number of learners in each category	One student with visual impairment (low vision)		

Unit title	Types of behavioural learning
Key Unit Competence	Demonstrate how theories can be applied in classroom situations
Title of the lesson	**Classical conditioning: Conditioned and unconditioned stimulus**
Instructional Objective	Referring to the chart of classical conditioning according to Pavlov and by using different examples in daily life, students will be able to compare and contrast conditioned and unconditioned stimulus effectively.
Plan for this lesson (Location)	In classroom
Learning materials	Charts, manila paper, stories, flash cards (short papers), videos
References	Psychology Student's book, Teacher's guide, Fact sheets about different theorists,

Timing for each step	Brief description of teaching and learning activities		Generic competences and cross-cutting to be addressed + short explanation
	In class, students and the teacher make a short conversation on daily life situation. Students react on the way they respond to different stimuli at school which will lead to the experiment of classical conditioning. The Teacher facilitates the students during the activity.		
	Teacher's activities	Students' activities	
1. Introduction 5minutes	Invite students to explain some concepts learnt previously; for example: learning, stimulus, response, perception, sensation	Share with the teacher the knowledge on those concepts for examples: **stimuli:** *an action or event that evokes a response in something or someone*, **learning:** *as a relatively permanent change in behavior.*	**Communication** will be developed through answering questions orally. **Critical thinking:** will be developed through sharing ideas on some concepts.
2.Development of the lesson 30 minutes a) Discovery activity	Invite students to listen to the story/scenario reflecting daily life and answer to questions related to the story. Make sure the classroom set up is effective so that the student with visual impairment is sitting in a favourite place that facilitate him/her to see on the chalkboard. For example; one day, a mother came from the market with a hand bag, and his child run after her to see what was is in the hand bag. What made this child to run after his mother?	Listen to the story and answer to questions related to the story. For example: the child was thinking about something good, the mother brought to him	**Communication** will be developed through listening the story **Inclusive education** will be addressed when a student with visual impairment get involved in the lesson.

	Ask students to form a pair and do the assigned task: What are your reactions when it is one hour before the lunch is ready? How do you feel when you pass near the kitchen and the smell of delicious food you like enters through your nose? How do behave when it is a lunch time and you hear the bell rings	Join the colleague in order to form a pair Have a discussion on the assigned task	**Gender education** will be addressed though formation of pair to answer to questions **Cooperation and collaboration** will be developed in their pair, sharpening ideas related to the task provided **Research and problem solving** through discussion and answering questions based on daily life.
b)Presentation of learner's production	Invite some pair to share what they have discussed by presenting. Paraphrase their answers where is necessary	Make a presentation of the task For example: When some minutes or hour is remaining, before lunch time, we start feeling hungry, we think about the lunch which is going to be taken, wonder how the food will be looking like... We start feeling saliva going to be out the mouth...	**Critical thinking** will be developed through presentation **Communication** will be developed through learning new vocabularies, pronunciation and listening to the explanation from the tutor...

c)Exploita-tion	Support students by explaining classical conditioning theory using an experiment from Pavlov (on a chart/video); its stages, and principles. **Example of chart description is in students book lesson 6.1.1 and 6.1.2**	Follow actively the teacher's explanations while describing classical conditioning theory for the students better understanding conditioned and unconditioned stimulus and ask questions where it is necessary.	
3.Summary/conclusion/	Help students to summarise the content of classical conditioning: conditioned and unconditioned stimulus Guide them to find many examples in the classroom / school environment and in their daily life (home, the community….)	Summarize the content in guided by the Teacher: **For example:** in classical conditioning theory, there are three stages: before conditioning, during conditioning and after conditioning (and its characteristics: see in the students' book, lesson 6.1.1 and 6.1.2). there are conditioned and unconditioned stimulus and its examples. And also basic features of the classical conditioning model of learning (with explanations)	**Critical thinking** will be developed while students making summary of what they have learn
Assessment +5 minutes	Have a question written on manila paper with good handwriting to enable student with impairment to do the assessment in good condition **For example:** Compare and contrast conditioned and unconditioned stimulus and give examples that can be found in daily life.	Use short papers to answer to the question ask by the teacher.	**Critical thinking** while answer to the question asked.

	For example: Compare and contrast conditioned and unconditioned stimulus and give examples that can be found in daily life.		
Teacher's self-evaluation	This lesson has been taught well and students were motivated, active in learning Classical conditioning: Conditioned and unconditioned stimulus, **Area of improvement:** Teaching and learning resources were not enough and next time there will be a need to involve students to make and use their own resources through local materials.		

PART III: UNIT DEVELOPMENT

Unit 1 — NATURE OF PERSONALITY

1.1. Key unit competence

Demonstrate an understanding on how behaviour, emotion, motivation, and though patterns define an individual.

1.2. Prerequisite

Students will understand this unit "Nature of Personality" based on the prerequisites they have from "Developmental Psychology, factors of development: Heredity and Environment" they studied in S4.

1.3. Cross-cutting issues to be addressed

Peace and Values Education: this cross cutting will be addressed throughout this unit. Students will learn that having different personalities should not be an object of discrimination. Maintaining good relationship with people by avoiding any conflicts.

Inclusive education: When teaching this unit, the teacher will address specific needs and differences among students. All students including those with special educational needs will be catered for. Teacher will avoid any kind of discrimination. This cross cutting issues will be integrated in the lesson by emphasizing that the individual differences created by personalities should not be the cause of exclusion. For example, I should not be excluded from the peers' group just because I am introverted.

Gender education: The teacher should bear in mind that all students (girls and boys) have equal opportunities and rights to learn. Therefore, when forming group activities, assigning tasks and responsibilities, asking questions, and giving feedback teacher should include both girls and boys.

Environment sustainability: This cross cutting issue will be integrated by asking students to take good care of the learning materials, maintaining hygiene of the working environment.

1.4. Guidance on introductory activity

- Invite the students to listen attentively to the story of students' reactions upon receiving the CAT marks
- Narrate the story clearly without missing any point to avoid confusing the students
- Ask questions about the story
- The teacher should guide the students' answers towards differences in personalities
- Give supplementary needed explanations for students to consolidate and extend their learning

Introductory activity

Possible answers to introductory activity

Answer 1:

All the students failed the CAT, but they reacted differently. The only reason is that we are different. Even two identical twins would react differently to the same stimulus.

- An individual's personality is the complex of mental characteristics that makes them unique from other people. It includes all of the patterns of thought and emotions that cause us to do and say things in particular ways. At a basic level, personality is expressed through our temperament or emotional tone.
- An individual's personality is the complex of mental characteristics that makes them unique from other people.
- It includes all of the patterns of thought and emotions that cause us to do and say things in particular ways.
- At a basic level, personality is expressed through our temperament or emotional tone.

1.5. List of lessons

#	Lesson title	Learning objectives	Number of periods
1	Concepts of personality: personality, nature,	Explain the key concepts of personality (personality, nature)	4
2	Concepts of personality: temperament	Identify the key concepts of personality (temperament)	2
3	Concepts of personality: character, traits, patterns	Describe the key concepts of personality (character, traits, patterns)	4
4	Factors of personality (nature, nurture)	Discuss how environment and family are factors to human personality development	4
5	Assessment		2
	Total	Periods	16

Lesson 1.1: Concepts of personality: personality, nature.

Learning objective

Explain the key concepts of personality (personality, nature)

Teaching resources

Flip chart, markers, flash cards, books, handouts, computers and internet, some pictures illustrating people with different personalities.

Prerequisites/Revision/Introduction

Student will understand better the concept of personality and its nature since they have an understanding on developmental psychology learned in senior four.

Learning activities

Activity 1.1.

- Read the scenarios to the learners about supporters of the same team reacted to the goal that was scored by their team, Rayon sport.

- Ask a question to the learners targeting the motives behind those reactions.

- Listen to the discussions

- Orient the answers towards the causes of different reactions of people

Because they were all supporting the same team, they should have done the same things after the goal. But they did it differently because they had different background: rural, urban settings.

Give supplementary needed explanations for students to consolidate and extend learning.

Application activities

Answer 1 :

I will advise the person overwhelmed with problems and stress to find somebody she/he trust and tell all his/her problem because it is one way he/she can get released. This is « Self-disclosure » because it has been considered basic to mental health and such disclosure helps to bring about a healthy personality pattern which is a guarantee for a socially desirable and favourable reactions from others.

Answer 2 :

People should control their eating habits because the increase in weight affects some people's behaviour and they may tend to hate themselves. Negative self-concept.

Lesson 1.2: The concept of Personality: Temperament

Learning objective

Identify the key concepts of personality (temperament)

Teaching resources

Handouts, pictures of people with different temperaments, internet, computer, tablet, phone, etc.

Prerequisites/Revision/Introduction (guidance on how to start the lesson)

This lesson "Concepts of personality: Temperament" is the continuation from lesson 1 "Concepts of personality: Personality, Nature", the teacher will make a revision on the previous concepts as they are all concepts of personality. The teacher also introduces the lesson using a story or a scenario depicting those temperaments through peoples' behaviour.

Learning activities

Guidance on Activity 1.2

- Present the scenario clearly
- Ask the learners questions about the behaviour of the concerned people in the story.
- You can create another similar scenario that depicts the concerned characteristics.

Suggested Answers to activity 1.2

- It is obvious that some students would choose to live with Kodo because even if he revenged immediately, at least he does not keep anger for so long.
- Others may choose to live with Bebe because, it takes time for him to revenge and it is an opportunity for the target to escape.

Give supplementary needed explanations for students to consolidate and extend learning

Application activities 1.2

Suggested Answers to application activity 1.2

Answer 1: the four temperaments discussed include

- Sanguine temperament
- Choleric temperament
- Melancholic temperament
- Phlegmatic temperament

Answer 2: A choleric person is quickly and vehemently excited by any and every influence. Immediately the reaction sets in and the impression remains a long time.

Answer 3: The upsetting behaviour of a sanguine include:

- Vanity and self-complacency
- Inclination to flirtation, jealousy and envy
- Cheerfulness and inordinate love of pleasure
- Dread of vertue which requires strenuous efforts

- Wrong decisions
- Does not give attention to possible obstacles and takes success for granted.
- Unstable in the pursuit of the good
- Self-knowledge is deficient

Answer 4 : What can be similar among the four groups of temperaments
- The sanguine and choleric are extroverts, outgoing
- The melancholic and phlegmatic are introverts, reserved.

Lesson 1.3: Concepts of Personality: Character, Traits, Patterns

Learning objective

Describe the key concepts of personality (character, traits, patterns)

Teaching resources

Handouts, pictures of people with different personality traits, internet, computer, tablets, etc.

Prerequisites/Revision/Introduction (guidance on how to start the lesson)

The lesson: "Character and traits" is related to "Temperaments", the teacher may choose to do the revision on "temperaments" then continue with the new lesson. The students' knowledge on temperaments (choleric, sanguine, melancholic, phlegmatic) will help them to understand the traits (introverted, extroverted, agreeableness, etc.) because they have in common how people express their emotions: some being quick others being slow. They are also linked by the way those people relate with others.

Learning activities

Guidance on Activity 1.3
- Ask the students some questions leading to the lesson
- Ask students to explain how they understand the person with good or bad character
- What is needed here is to check their prior knowledge about the lesson.
- After they have answered, the teacher may tell them that by the end of the lesson they will see if their understanding matches with the content of the lesson

The character of a person is the collection of his/her qualities. We say that someone is of good character when he/she behaves well. Someone with good manners and polite is said to have good character. On contrary, someone is said to have bad character when he/she manifest bad attitudes.

Give supplementary needed explanations for students to consolidate and extend learning

Application activities

Suggested Answers to application activity 1.3

Answer 1: The dimensions of character

Moral Character

It can be defined as the character of highest ethical standards mainly obeying law and order of society. Honesty, sincerity and courtesy are the fundamental elements of moral character.

Spiritual Character

Persons who possess spiritual characteristics believe that "God is omniscient, omnipotent and omnipresent. Realisation of Life, Karma, Birth, Rebirth, Death and Moksha are the constituent parts of spiritual character;

Physical Character

Character that maintains highest standards especially with opposite sex of all ages; married life is the crux of it: A man should not misuse his body' against friends, relatives and society at large. Lust should be avoided and love must be propagated.

Materialistic Character

Every person has to obtain highest ethical standards in his job, occupation, business or profession. Person's motive should not be fulfilled by illegal means. Honest effort will bring peace and happiness in life.

Answer 2: Personality traits known as the Big Five

Extraversion: This is also called as Surgency. The broad dimension of Extraversion encompasses specific traits as talkative, energetic, and assertive. More specifically these include characteristics such as excitability, sociability, talkativeness, assertiveness, and high amounts of emotional expressiveness.

Agreeableness: This factor includes traits like sympathetic, kind, and affectionate. It also includes attributes such as trust, altruism, kindness, affection, and other prosocial behaviours.

Conscientiousness: This includes traits like organised, thorough, and planful tendencies. Common features of this dimension include high levels of thoughtfulness, with good impulse control and goal-directed behaviours. Those high in conscientiousness tend to be organised and mindful of details.

Neuroticism: This is sometimes reversed and called Emotional Stability. This dimension includes traits like tense, moody, and anxious. Individuals high in this trait tend to experience emotional instability, anxiety, moodiness, irritability, and sadness.

Openness to Experience: This is also called as Intellect or Intellect/ Imagination. This dimension includes traits like having wide interests, and being imaginative and insightful. Those high in this trait also tend to have a broad range of interests.

Lesson 1.4: Personality (Nature vs Nurture)

Learning objective

Discuss how environment and family are factors to human personality development

Teaching resources

Handouts, internet, computer, tablets, etc.

Prerequisites/Revision/Introduction (guidance on how to start the lesson)

-   Since the students have seen the influence of heredity and environment on human development. They use the knowledge they have in Developmental Psychology to understand how environment and heredity influence human personality.
-   What might be new to them is the terminology "Nature, Nurture"

Learning activities

Guidance on Activity 1.4

- The teacher will ask the students to discuss how the influence of heredity and environment on the human personality with reference to development psychology of senior 4.
- They can use the temperaments and traits discussed earlier and see how environment and heredity may influence those behaviours.
- The teacher will help students to match the knowledge they have about how environment and heredity influence human development with the concepts of "Nature and Nurture" and how they shape peoples' personality.

Suggested Answers to activity 1.4

- Human behaviour is influenced by heredity because there are many qualities that we inherit from our ancestors. Being tall, short, skin complexion, etc. we inherit them from our parents including some illnesses.
- On the other hand, the environment plays a great role in shaping our behaviour because we copy many behaviour patterns from people we admire especially celebrities. We belong to some groups which change our behaviours.

Give supplementary needed explanations for students to consolidate and extend learning

Answers to Application 1.4

Suggested Answers to application activity 1.4

Answer 1 : Aspects of nurture that influence individual's personality.

Nurture means « Environment ». The following are aspects of environment that influence an individual's personality.

The physical environment:

It includes the influence of climatic conditions of a particular area or country on man and his living.

The social environment

The child has his birth in the society. He learns and lives there. Hence, the social environment has an important say in the personality development of the child.

Family environment

Bronfenbrenner's Ecological theory viewed the family as a network of interdependent relationships where each member influencing the behaviour of the other, in direct and indirect ways. The type of training and early childhood experiences received from the family play an important role in the development of personality.

Cultural environment

The cultural environment refers to certain cultural traditions, ideas, and values which are accepted in a particular society.

School environment

School play an important role in moulding the personality of the children because a significant part of a child's life is spent in school between the ages of six and twenty years.

The school poses new problems to be solved, new taboos to be accepted into the superego and new models for imitation and identification, all of which contribute their share in molding personality.

Answer 2: The importance of interaction between nature and nurture in shaping individual's personality.

Many researchers consider the interaction between heredity and environment—nature with nurture as opposed to nature versus nurture—to be the most important influencing factor of all. For example, perfect pitch is the ability to detect the pitch of a musical tone without any reference. Researchers have found that this ability tends to run in families and might be tied to a single gene. However, they have also discovered that possessing the gene is not enough as musical training during early childhood is needed for this inherited ability to manifest itself.

1.6. End unit assessment

- Invite students to do the end unit assessment questions
- Collect their work and mark them
- Give them students feedback.

Answer 1 :

Strict parents tend to encourage their children for depending upon external controls to guide their behaviour. As a result, when the children are outside the direct control of their parents/guardian, they tend to show impulsiveness in their behaviour.

Parents should adopt a warm and caring behaviour towards their children because living with warm, affectionate, loving and interested parents generally produces social and gregarious persons. Such persons also develop an interest of welfare and affection for persons outside the home as well.

Answer 2 :

- Pride
- Anger
- Hypocrisy
- Lack of sympathy

Answer 3:

Dimension	Descriptions
Extraversion	The dimensions ranges from sociable, talkative and enthusiastic at one end to sober, reserved , and cautious at the other.
Agreeableness	Ranges from good natured, cooperative, trusting at one end to irritable, suspicious, uncooperative at the other.
Conscientiousness	Ranges from well-organised, careful and responsible at one end to disorganised, careless, and unscrupulous at the other.
Emotional Stability	Ranges from poised, calm ,and composed at one end to nervous, anxious, and excitable at the other ; also called neuroticism.
Openeness to Experience	Ranges from imaginative, witty. And intellectual at one end to down-to –earth, simple, and narrow in interests at the other.

1.7 Additional information for teacher

The teacher should have information about:

- The teacher should also read more about personality theories in order to extend his/her understanding about personality

- Personality theories: Freud's theory (psychosexual theory); tripartite theory of personality; Eysenck's Personality Theory; Psychoticism; Cattell's 16PF Trait Theory; Allport's Trait Theory; authoritarian personality (Saul Mcleod, 2021. Theories of personality).

1.8. Additional Activities

Remedial activities

1. **Briefly discuss how psychological factors influence human personality**

Answer: Psychological factors influencing human personality

- Intellectual determinants
- Emotional determinants
- Self-disclosure
- Aspiration and achievements

Intellectual determinants

- Intellectually bright men and women make better personal and social adjustments than those of average or below average intelligence.
- Having very superior intelligence affects personality development unfavourably: development of personality patterns like: negativism, intolerance, habits of chicanery, emotional conflicts, solitary pursuit, self-sufficiency, dominance, etc.

Emotional determinants

- Emotions are considered important personality determinants because they affect personal and social adjustment.
- Several aspects of emotions like dominant emotions, emotional balance, emotional deprivation, excessive love and affection, emotional expressions, emotional catharsis and emotional stress directly and indirectly affect the development of personality.
- Some people experience a predominance of pleasant emotions while others experience a predominance of unpleasant emotions. This predominance affects the development of personality.

- Emotional deprivation of pleasant emotions like love, happiness and curiosity also has an impact, which gradually leads to poor personal and social adjustment.
- Too much parental love and affection awakens a disposition for neurotic disorders, spoils the child and makes the individual a problematic adolescent.

Self-disclosure

- Emotional stress expressed in the form of anxiety, frustration, jealousy and envy also affect the development of personality.

Aspiration and achievement

- remote and realistic aspirations do provide stronger motivating forces than immediate and unrealistic aspirations.
- Negative aspirations are considered weaker in providing motivating strength than positive aspirations.
- If the person is pleased with own achievement, the achievement will be considered a success and this has a favourable impact upon the self-concept.

Consolidation activities

Question: Briefly discuss how environment factors influence human personality

Answer:

The physical environment:

It includes the influence of climatic conditions of a particular area or country on man and his living. People from mountainous regions have personality which is different from the one of people in flat areas. People living in hot regions behave differently from people in cold areas.

The social environment

The child has his birth in the society. He learns and lives there. Hence, the social environment has an important say in the personality development of the child. The child will adopt the behaviour of the group he/she living in. Jean Jacques Rousseau said that every child is born good, it is the society that corrupts him/her and this is true because parents realise that their child adopt some new behaviour the moment he/she goes to school.

Family environment

Bronfenbrenner's Ecological theory viewed the family as a network of interdependent relationships where each member influencing the behaviour of the other, in direct and indirect ways. The type of training and early childhood experiences received from the family play an important role in the development of personality.

Cultural environment

The cultural environment refers to certain cultural traditions, ideas, and values which are accepted in a particular society. The cultural practices, religious practices and other practices shape individual's personality. These include dressing styles, eating habits, taboos, etc.

School environment

As an agent of change, school plays an important role in moulding the personality of the children because a significant part of a child's life is spent in school between the ages of six and twenty years. The school poses new problems to be solved, new taboos to be accepted into the superego and new models for imitation and identification, all of which contribute their share in molding personality.

Extended activities

Question: Describe the five categories of personality characteristics that contribute to understanding of individual differences usually called "the Big Five".

Answer: Description of the Big Five:

a) Extraversion: This is also called as Surgency. The broad dimension of Extraversion encompasses specific traits as talkative, energetic, and assertive. More specifically these include characteristics such as excitability, sociability, talkativeness, assertiveness, and high amounts of emotional expressiveness.

b) Agreeableness: This factor includes traits like sympathetic, kind, and affectionate. It also includes attributes such as trust, altruism, kindness, affection, and other prosocial behaviours.

c) Conscientiousness: This includes traits like organised, thorough, and planful tendencies. Common features of this dimension include high levels of thoughtfulness, with good impulse control and goal-directed behaviours. Those high in conscientiousness tend to be organised and mindful of details.

d) Neuroticism: This is sometimes reversed and called Emotional Stability. This dimension includes traits like tense, moody, and anxious. Individuals high in this trait tend to experience emotional instability, anxiety, moodiness, irritability, and sadness.

e) Openness to Experience: This is also called as Intellect or Intellect/Imagination. This dimension includes traits like having wide interests, and being imaginative and insightful. Those high in this trait also tend to have a broad range of interests.

Unit 2 | MODERN TRENDS OF PERSONALITY

2.1. Key unit competence

Judge the necessity of modern trends of personality.

2.2. Prerequisite

Students will learn and understand better this unit since they have understood the unit on different Personalities. The content in Modern Trends of Personality builds on what the students have covered in different personalities. The unit 2 is mostly about the factors influencing peoples' personalities and yet these were covered in unit 1.

2.3. Cross-cutting issues to be addressed

Gender education: The teacher should bear in mind that all students (girls and boys) have equal opportunities and rights to study and develop their intelligence. When forming group activities, assigning tasks and responsibilities, asking questions, and giving feedback teacher should include both girls and boys. In addition, students will know how factors of personality influence men/boys and women/girls.

Peace and Values Education

Intelligence involves peace and value education, due to the fact that, this crosscutting issue is all about how education can contribute to a better awareness of the root causes of conflict, violence and disturbances at the personal level. Therefore, different ways of preventing aggression will be the root causes of preventing conflict, hence promoting peace.

Environment and sustainability

This may be broadly understood to mean our surroundings. The teacher will draw students' attention to the environment sustainability when using making, searching and using learning materials. Cleanliness of the learning environment will also be emphasised to prevent aggression because a hot environment increases aggressive behaviours in people.

Inclusive education

When teaching this unit, the teacher will address specific needs and differences related to different personalities and the teacher will focus on none discrimination based on the student's personality.

2.4. Guidance on introductory activity

- Invite students to join groups
- Let them discuss how digital technology especially the mass media is influencing men and women's personality in various dimensions
- Invite group representative to present their findings.
- Orient the discussion towards the influencing of mass media on men and women's personality.

Introductory activity

Possible answers to introductory activity

- People tend to change their behaviour depending on what they watch in the media.
- Some people adopt bad behaviour as a result of watching various stars
- Children are being aggressive and violent because of what they watch in the cartoons and movies
- Both men and women are being influenced, it depends on the media content they watch

2.5. List of lessons

	Lesson title/sub heading	Learning objectives	Number of periods
1	Factors or dimensions of personality (Sex differences, Warmth, Emotional stability, Dominance, Liveliness, Social boldness, Sensitivity and, Openness to change)	Describe factors or dimensions of personality	4
2	Aggression: definition, biological and emotional causes of aggression	Discuss biological and emotional causes of aggression	3

3	Aggression: the influence social situation on aggression	Demonstrate how social situation influence aggression	3
4	Aggression: Personal and cultural influence on aggression	Discuss personal and cultural influence on aggression	2
5	End unit assessment		2
	Total number of periods		**14**

Lesson 2.1: Factors or dimensions of personality: Sex differences, Warmth, Emotional stability, Dominance, Liveliness, Social boldness, Sensitivity and, Openness to change.

Learning objective

Describe factors or dimensions of personality

Teaching resources

Flip chart, markers, flash cards, handouts with descriptions of factors or dimensions of personality

Prerequisites/Revision/Introduction

Students will understand the dimensions of personality because they will link them to the personality traits that they learnt previously. It will be easy for them to learn the factors/dimensions of personality because if they know different personality traits, temperaments, they will easily identify their factors.

Learning activities

Activity 2.1.

- Invite students to read individually the question in the student book and work in pairs to find out how personality traits influence men and women differently?
- Have some pairs to make presentations.
- Provide constructive feedback in terms of supplements.

Behavioral differences between male and female is controversial. Behavior associated with sex role depend on social and cultural context and this influences their personality. If personality is governed by genetic inheritance, then women and men who are genetically different will also have different personalities.

Give a supplementary needed explanation on the factors or dimensions of personality

a) Application activities 2.1

Suggested Answers to application activity 2.1

From the research by Cattell in 16 personality factors:

Women dominate men in: warmth, rule-consciousness, social boldness, sensitivity, apprehension, openness to change, perfectionism and tension. While men dominate in the rest of personality traits such as: reasoning, emotional stability, dominance, liveliness, vigilance, abstractedness, privateness, and self-reliance.

The comparison with the Big Five: women have higher scores in some aspects/facets while men score higher in other facets. For example:

Neuroticism: women have been found to score higher than men on Neuroticism.

Agreeableness : Women score somewhat higher than men on some facets of Conscientiousness, such as order, dutifulness, and self-discipline.

Extraversion: Women tend to score higher than men on Warmth, Gregariousness, and Positive Emotions, whereas men score higher than women on Assertiveness and Excitement Seeking.

Openness/Intellect: No significant gender differences are typically found on Openness/Intellect.

Lesson 2.2: Aggression: Definition, biological and emotional causes of aggression

Learning objective

Discuss biological and emotional causes of aggression

Teaching resources

Flash cards, handouts with definition of aggression and violence, computer and internet

Prerequisites/Revision/Introduction

Students will learn better biological and emotional causes of aggression by referring to personality traits and temperaments. These traits and temperaments are directly linked to someone can be aggressive or non-aggressive.

Learning activities

Activity 2. 2.

- Bring students to the smart classroom
- Ask them to make a research and find out the meaning of aggression and violence
- Ask to work in pairs and share what they have found
- Have some pairs to make presentations.
- Ask students some questions in order support their ideas

Suggested Answers to activity 2.2

Answer 1 : Acts of one person intended to harm another person.

Answer 2 : Aggressive acts include :

- Beating
- Insulting
- Spitting
- Slapping
- Humiliating
- Bullying
- Killing
- Etc.

Give supplementary needed explanation on biological and emotional causes of aggression

Application activities

Answer 1 : Aggression is biologically caused by the following :

Amygdala

Amygdala is the region of the brain in charge of regulating our perceptions of, and reactions to, aggression and fear. When we experience events that are dangerous, the amygdala stimulates the brain to remember the details of the situation so that we learn to avoid it in the future. The amygdala is activated when we look at facial expressions of other people experiencing fear. Although the amygdala helps us perceive and respond to danger, and this may lead us to aggress. The other parts of the brain serve to control and inhibit our aggressive tendencies. The prefrontal cortex is in effect a control center for aggression: when it is more highly activated, we are more able to control our aggressive impulses.

Hormones

Hormones are also important in creating aggression. The male hormone Testosterone is associated with increased aggression in both animals and humans. People with the highest testosterone levels were associated with wild, unruly and crudeness of their behavior.

Alcohol consumption

Alcohol increases aggression for a couple of reasons. First, alcohol disrupts executive functions, which are the cognitive abilities that help us plan, organize, reason, achieve goals, control emotions, and inhibit behavioral tendencies.

Answer 2 :

By Displaced Aggression, negative emotions do not always lead to aggression towards the source of one's frustration. One may displace aggression onto innocent others who seem similar to the source of one's frustration or having any relationship.

Lesson 2.3: Aggression: the influence of social situation on aggression

Learning objective

Demonstrate how social situation influence aggression

Teaching resources

Flash cards, markers, handouts with descriptions of the influence of social situation on aggression

Prerequisites/Revision/Introduction

The content of the previous lesson "Aggression: Biological and emotional causes of aggression" is the best prerequisite for "influence of social situation on aggression" since it is like the continuation.

Learning activities

Activity 2.3.

- Ask students to work in pairs and reflect on the reasons why most students bully others and what to do to eradicate bullying in schools.
- Have some pairs to make presentations.
- Ask students some questions in order support their ideas

Suggested Answers to activity 2.3

Answer 1: Students (superior) like to bully the new ones because they want to show them that they are superior to them that they should respect them. They want to exercise power over the newcomers. The girls who are depressed engage in bullying to feel happy.

Answer 2 :

- We should accept that bullying is a very common phenomenon with very uncommon and devastating effects.
- It must be treated as a serious problem by the authorities involved in the specific settings, such as teachers, parents, students, prisoners, wardens, guards, colleagues, supervisors, etc.
- School authorities should not only pay adequate attention to it, but also unanimously and decisively take action against it.
- The potential victims should be should be regularly made aware about the institutional measures that counter bullying behaviours and provide protection to the victims.
- Appropriate and prompt punitive actions against bullying behaviours can help in controlling such behaviours to a great extent.

With clear examples, provide deep explanation on the influence of social situation on aggression

Application activities 2.3

Suggested Answers to application activity 2.3

Answer 1:
- Aggressive behaviours are learned in the same way as we learn other social behaviours
- Aggressive behaviours are learned either by direct experience or by vicarious conditioning, observing aggressive social models.
- Learning of aggression by direct experience occurs when a person's aggressive behaviour is rewarded and reinforced in a given situation.

Answer 2:
- We can learn aggressive behaviours by watching aggressive/violent movies and television programmes and by playing aggressive video games also.
- Children and adults exposed to violent content in the mass media, such as TV programmes, films, video games, etc., tend to more engage in violent and aggressive behaviours. Children who were exposed to the aggressive models expressed similar behaviours and played in aggressive and violent ways with the toys.

Lesson 2.4: Aggression: Personal and cultural influence on aggression

Learning objective

Discuss personal and cultural influence on aggression

Teaching resources

Flip chart, markers, Flash cards, handouts with short descriptions of personal and cultural   influence on aggression

Prerequisites/Revision/Introduction

Students will learn better Personal and cultural influence on aggression since they have a very rich background with influence of social situation on aggression. The social and the cultural situations are interconnected.

Learning activities

Activity 2.4.

- Ask students to work in pairs to discuss different causes of aggression among our societies
- Have some pairs to make presentations.
- Ask students some questions in order support their ideas

Suggested Answers to activity 2.4

Answer 1:

The causes of aggression are multifaceted :

- Socialisation,
- Social organisation,
- Economics,
- Ecology,
- Gender,
- Natural,
- Sexual selection.

Answer 2:

- People of low SES tend to be more aggressive rather than participants of high subjective SES being less aggressive
- People with low self-esteem would be more aggressive than those with high self-esteem
- Individuals with high self-esteem are more prone to anger and are highly aggressive when their high self-image is threatened.

Provide deep explanation on causes of aggression among in the society

Application activities

Suggested Answers to application activity 2.4

Answer 1: Ways to reduce aggression within social groups

- Restructuring institutions,
- Promoting norms and values favouring peace over aggression,
- Socializing the young toward peaceful behaviour

2.6. Additional information for teacher

- The content focuses much on the causes of aggression, the teacher should search more information on the consequences of aggression and how to handle the aggressive people (control aggressive situations)

2.7. End unit assessment

- Invite students to do the end unit assessment questions
- Collect their work and mark them
- Give them students feedback

End unit assessment

Answer 1 :

Strategies to reduce aggression

1. **Punishment and modelling strategies.**
    - Punishment works on the principles of operant conditioning which assumes that the strength of association between the stimulus and the response will be weakened if an aversive consequence or outcome is made contingent upon the response. Aggressive behaviour is decreased when the consequence of an aggressive behaviour is made painful or aversive. But care should be taken by inflicting punishment immediately after aggressive behaviour to avoid confusing the person being punished. The punishment should be strong and justified with sufficient explanation and reasoning.
    - Exposing the people to non-aggressive models or to the models who are involved in pro-social behaviours. Exposure to the models involved in pro-social behaviours strengthens adaptive social behaviours.

2. **Catharsis strategy**

Catharsis reduces the possibility of overt aggressive behaviour in its harmful form. Non-harmful behaviours, such as going for vigorous sports, aggressing at the photograph of an enemy or shouting in foul language in an empty room, that are a substitute to the actual aggressive behaviour, have proved to reduce anger and aggression. But these effects are temporary because when the person is placed in the actual social setting, the aggressive behaviour may recover again.

3. Cognitive strategy

Apology is one of the most common and simple strategy to reduce aggression. When an aggressive behaviour is followed by an apology, the aggressive behaviour is attributed as an unintentional act. Effectiveness of apology in reducing the likelihood of aggression depends on its genuineness. Some people show hypocrisy when apologizing. For example"I am sorry if you feel hurt!".

Answer 2:

- Due to lack of social skills, younger children and adolescents largely depend on physical aggression to settle their disputes and to get their needs fulfilled.
- Mature people use mature ways to settle disputes. They resist their aggression in variety of social interactions
- As for gender differences, in almost all societies males are physically and verbally more aggressive than the females. Females are intensely socialised to resort to more indirect forms of aggression and to be less expressive in direct physical and verbal aggression.
- Women and girls use more nonphysical aggression such as shouting, insulting, spreading rumors, and excluding others from activities, men and boys prefer more physical and violent aggression—behaviors such as hitting, pushing, tripping, and kicking

Answer 3:

1. Women are more warmth than men and outgoing (True)
2. Women are more solitary and individualistic (self-reliant) than men (False)
3. Men are more organized and self-disciplined (Perfectionism) than women (True)
4. Girls are more suspicious and skeptical (Vigilance) than boys (False)
5. Women have been found to score higher than men on Neuroticism (True)
6. Men score higher than women on Assertiveness and Excitement Seeking (True)
7. Men are more dutiful (Rule-Consciousness) than women (False)
8. All acts of aggression are considered instances of violence (False)
9. Testosterone is the only biological factor linked to human aggression (False)
10. Alcohol myopia is being self-focused and ignoring the social situation (True)

2.8. Additional activities

Question: Explain how alcohol increases aggression

Answer:

- Alcohol disrupts executive functions, which are the cognitive abilities that help us plan, organize, reason, achieve goals, control emotions, and inhibit behavioral tendencies
- Alcohol therefore reduces the ability of the person who has consumed it to inhibit his or her aggression
- When people are intoxicated, they become more self-focused and less aware of the social situation, a state that is known as alcohol myopia
- They are less likely to notice the social constraints that normally prevent them from engaging aggressively and are less likely to use those social constraints to guide them
- When we are sober, we realize that being aggressive may produce retaliation as well as other problems, but we are less likely to be aware of these potential consequences when we have been drinking

Consolidation activities

Question: Describe the steps to reduce bullying behavior.

Answer:

- We should accept that bullying is a very common phenomenon with very uncommon and devastating effects.
- It must be treated as a serious problem by the authorities involved in the specific settings, such as teachers, parents, students, prisoners, wardens, guards, colleagues, supervisors, etc.
- School authorities should not only pay adequate attention to it, but also unanimously and decisively take action against it.
- The potential victims should be should be regularly made aware about the institutional measures that counter bullying behaviours and provide protection to the victims.

Appropriate and prompt punitive actions against bullying behaviours can help in controlling such behaviours to a great extent.

Extended activities

Question 1: Explain how social rejection can cause or increase aggression

Answer:

- When we are excluded from the society, it negatively impacts our self-image and self-esteem and further leads us to become hostile and aggressive in social interactions.

- When we are rejected by others, it stimulates a hostile cognitive mind-set or bias which inclines us to perceive others' ambiguous and largely neutral behaviours as hostile.

- When we are rejected we feel unhappy, unloved and hurt. These negative emotions stimulate aggression.

Unit 3 THEORIES OF PERSONALITY

3.1. Key unit competence:

Assess different views of psychologists related to personality.

3.2. Prerequisite

To be able to learn the theories of personality in better conditions, students must have an understanding of nature (different concepts related to personality) of personality and modern trends of personality. These concepts include temperament, character, trait, and pattern. In addition, the student must have knowledge about factors or dimensions of personality, the concept of aggression and the genetic aspects of personality including Activity, Passivity, Fussiness, Cuddliness, Responsiveness.

3.3. Cross-cutting issues to be addressed

During this unit "theories of personality" cross cutting issues such as gender, comprehensive sexuality, peace and value education and inclusive education will be addressed.

Gender education will be addressed in developing the theory of personality of Karen Horney where she opposed her concept of womb envy to penis envy developed by Sigmund Freud. Students will be explained that what matters is not the sex but gender and the respect of both sexes. The teacher should bear in mind that all students (girls and boys) have equal opportunities and rights to study. When forming group activities, assigning tasks and responsibilities, asking questions, and giving feedback tutor should include both girls and boys.

Peace and value will be addressed especially when explaining the topic related to structure of personality and defense mechanisms. The teacher will explain that some urges and impulses of the Id can be satisfied in a peaceful way and that defense mechanisms are there to reduce anxiety and not to harm people. Through teaching and learning, the culture of peace and values should be promoted. In group, students learn to share resources and ideas with respect. They also learn to solve their problems in peaceful manner.

Inclusive education will be tackled all along the unit. The lesson will be inclusive. This means that learners. Both genders will be respected in doing activities and answering questions. For example, in some activities requiring group work, the teacher has to make sure that inclusive education is respected.

3.4. Guidance on introductory activity

1. The teacher will invite all students to read the scenario and reflect on asked questions.

   - After reading, students will answer the questions individually.
   - Students will explain their answers to make their point of view very clear.
   - Supplement students' presentations and link students' answers on the new lesson.

Introductory activity

Possible answers to introductory activity

a) From the scenario, the three students differ in their personalities. This reflects the behavior of all people. There are good people and bad ones. Some stive to satisfy their instinctual drives, others just fight against their needs and pleasures, others try to mediate between satisfaction of their needs and the norms and rules of the society.

b) Students will explain whether they recognize themselves among the three students described in the scenario. They will have to provide examples.

3.5. List of lessons/sub-heading

#	Lesson title/subheading	Learning objectives	Number of periods
1	Theories of personality: psychoanalytic approach / theory	Identify different thoughts of psychoanalytic theory	4
2	Theories of personality: Neo-Freudian-psychoanalytic approach / theory	Explain Neo-Freudian-psychoanalytic theory	4
3	Theories of personality: Humanistic approach / theory	Analyse different views of humanistic theory	4

4	Theories of personality: cognitive approach	Discuss implications of cognitive approach/theory in describing peoples' personality.	4
5	End unit assessment		2
	Total number of periods		18

Lesson 3.1: Psychoanalytic approach/theory

a) Learning objective

Identify different thoughts of psychoanalytic theory.

b) Teaching resources

Handouts and videos explaining the psychoanalytic theory of Sigmund Freud.

Diagram, Flip chart, chalkboard, markers, pens, pictures, drawings, maps, internet, flip charts, flash cards, and wall charts with graphics to represent psychoanalytic theory of personality.

c) Prerequisites/Revision/Introduction

Students have already learned and mastered the nature of personality and related concepts. In addition, they have studied current trends of personality. This prerequisite knowledge will help them learn better the psychoanalytic theory of personality.

d) Learning activities

Activity 3. 1:

- Form groups of 3 or 4 students.
- Invite students to read the scenario from student book, share ideas and then answer related questions.
- Guide the students' discussions.
- Ask students to present their findings.
- Supplement students' presentations and link students' answers on the new lesson.

i) The behaviour of Angelo can be characterized as not good, but it is common for all children in early ages. His insistence to spend nights with his mother is a sign of love and attachment which characterise children and their mothers in these ages.

ii) Romeo is reserved and polite because he has started to learn moral values required for all children in hi sages. He does not insist on sleeping with mom because of feeling of independence.

iii) Angelo does not exaggerate. Simply he is manifesting the love children have for their mothers in early ages. Again, for him, spending a night with mum will bring a feeling of protection.

iv) There is a feeling of hate between Angelo and his dad because dad is a kind of obstacle that prevent Angelo to be with his mother and spend night with her.

Continue the lesson by explaining the psychanalytic theory of Sigmund Freud.

e) Application activities 3.1:

Suggested Answers to application activity 3.1

1. Psychoanalytic theory of personality view human behaviour as a lively interaction between the conscious and unconscious mind and consider our related motives and conflicts. Freud and his followers explain that development is beyond consciousness. This is because that children are not aware of the motives and reasons for their behaviour and mental activities.

2. According to Freud's ideas about the three-part personality structure, the------Ego----operates on the reality principle and tries to balance demands in way that produces long-term pleasure rather than pain; the--------Id--------operates on the pleasure principle and seeks immediate gratification ; and the -------------Superego-------------- represents the voice of our internalized ideals (our conscience).

3. Freud believed that our defense mechanisms operate------------- unconsciously----and defend us against--------anxiety--------

4.

Defense mechanism	Definition	Example
Rationalization	Creating false but plausible excuses to justify unacceptable behavior.	An athlete using performance enhancing drugs says that « everybody is doing it ».
Denial	The refusal to accept reality or fact, acting as if a painful event, thought or feeling did not exist".	Denying that your physician's diagnosis of cancer is correct and seeking a second opinion.
Compensation	This is the tendency to cover up weakness by emphasizing desirable traits or making up for frustration in a given area by doing extremely well in another area.	A learner who performs poorly in the class work may work extra hard and produce excellent results in a sporting activity.
Regression	Regression is about reverting to immature behavior to relieve anxiety it is "the reversion to an earlier stage of development in the face of unacceptable thoughts or impulses".	An adolescent who is overwhelmed with fear, anger and growing sexual impulses might become clingy and start exhibiting earlier childhood behaviors he has long since overcome, such as bedwetting.
Projection	Anxiety-producing characteristics or behaviours of the self are attributed to others.	A person who cheats on a partner checks his or her partner's cell phone and e-mail for possible cheating.

5. a) Oedipus complex: This takes place when a boy seeks sexual pleasure by associating with his mother but hates his father and sees him as a rival.

   b) Fixation: When one's desire is tied to an object of desire connected to an earlier phase in one's psychosexual development.

6.

i)   Oral stage: 0-1 year

ii) Anal stage: 1-3 years

iii) Phallic stage: 3-6 years

iv) Latency stage: 6-12 years

v)   Genital stage: 12 years and abov

Lesson 3.2: Neo-Freudian-psychoanalytic approach/theory

a) Learning objective

Explain Neo-Freudian-psychoanalytic theory.

b) Teaching resources

Flip chart, chalkboard, markers, pens, pictures, drawings, maps, field trips.

c) Prerequisites/Revision/Introduction

Student have learnt the psychoanalytic theory of personality. They have discussed about cases and story related to this theory of personality. New Freudians built on ideas presented in psychoanalytic theory of personality. The competences gained in the previous lesson will enable students to learn the Neo-Freudians psychoanalytic theory of personality. They will learn better this lesson since they already know the meaning of psychoanalytic theory.

d) Learning activities

Activity 3.2:

- Put students in pair and ask them to brainstorm on the questions.
- Guide student's discussions towards Rwandan culture (family values, proverbs, cultural facts) that shape and influence their behaviours.

Suggested Answers to activity 3.2

1. Some Rwandan Proverbs:

a) Ihene mbi ntawe uyizirikaho iye.

b) Uwiba ahetse aba abwiriza uwo mu mugongo

c) Ingwe ntiyari izi gufata ku gakanu yarabwirijwe

d) Ugiye iburyasazi azimira nzima.

e) Imbwa yiganye inka kunnya mu rugo irabizira

f) Urwiganwa rwa mushushwe rwamaze abana b'imbeba ku rusenge.

g) Etc.

2. The student would explain his/her answer based on the care he/she received in the family; how tough was the life because he/she was born the first, second, the last…rules and discipline norms in the family….

3.

- Rwandan values (Kirazira): In rwandan culture, those Kirazira are things we respect sometimes without knowing the reason why. They may include objects, events, words, actions, animals… By doing so, our personality is shaped. Not respecting Kirazira, you would be exposed to negative consequences.

- Respecting some animals which are considered as totems for certain clans. The lesson that was passed to children is respect to living things especially those animals who are considered as protectors of different tribes.

Continue the lesson by describing the Neo-Freudian psychoanalytic theories of personality.

Application activities 3.2:

Suggested Answers to application activity 3.2

1. The Neo-Freudians studied in this unit are:
   a) Carl Gustav Jung
   b) Alfred Adler
   c) Karen Horney

2. Complete the table below by writing the proposed concepts under the corresponding psychologists:

Collective unconscious, inferiority complex, birth order, womb envy, anima, animus, individual psychology, neurotic needs, compliant personality, aggressive personality		
Alfred Adler	**Karen Horney**	**Carl Gustav Jung**
- Inferiority complex - Birth order - Individual psychology	- Womb envy - Neurotic needs - Compliant personality - Aggressive personality	- Collective unconscious - Anima - animus

3. Ideas of disagreement between:
   a) Jung and Freud:
   1. Jung developed an important part of personality called the collective unconscious, which was overlooked by Freud.
   2. They disagree on the role of sex in shaping the individual personality.
   3. Freud stated that the people's personality is influenced by the paste vents only but Jung said that individual's personality is shaped by both past and future events.

   b) Adler and Freud:
   1. Adler emphasised on social relationship and interaction as a factor of personality formation instead of being influenced by instinctual drives as explained by Freud.

   c) Horney and Freud:
   i) Personality is influenced by social and cultural factors as opposed by Freud.
   ii) She opposed the concept of penis envy by her own concept of womb envy.
   iii) The difference between men and women is based on social factors, not innate factors on thepart of women.
   iv) Social relationships and interactions are essential factors in personality formation.
   v) People are not motivated by sexual aggressive forces, but by the need for safety and love

4. Collective unconscious refers to the unconscious mind and common mental concepts. It is commonly associated with the unconscious mind. This term was coined by Carl Jung. According to him, human collective unconscious is populated by both instincts and archetypes which are primordial symbols.

5. Inferiority complex is defined as a basic feeling of inadequacy and insecurity. These feelings can stem from an actual or perceived deficiency in some area of a person's life. This can be a physical or psychological weakness or deficiency.

6. The concept of womb envy was coined by Karen Horney to challenge the concept of ....penis envy...........which was advanced by Sigmund Freud.

7. The three types of personality according to Karen Horney:

   i) **The compliant personality:** This type of personality exhibits attitude and behavior that reflect a desire to move towards other people, an intense and continuous need for affection and approval, an urge to be loved, wanted, and protected. Compliant personalities demonstrate these needs to everyone, although they typically need a dominant person, such as a friend or spouse, to take charge of their lives and provide protection and guidance.

   ii) **The aggressive personality:** Aggressive personalities act against other people. In her world everyone is hostile, only the strongest survive. Life is a jungle where superiority, strength and ferocity are the most important virtues. They never show fear of rejection. they act tough and domineering and show no consideration for others.

   iii) **The detached personality:** People who are described as detached personalities are driven to distance themselves from other people and maintain an emotional distance. They don't love, hate, or cooperate with other or interfere in any way. They strive to become total independent. They rely on their own resources, which must be well developed.

Lesson 3.3: Humanistic approach/theory

a) Learning objective

Analyse different views of humanistic theory.

b) Teaching resources

- Handouts and videos explaining the humanistic theory of Abraham Maslow and Carl Rogers.
- Diagram, Flip chart, chalkboard, markers, pens, pictures, drawings, maps, internet, flip charts, flash cards, and wall charts with graphics to represent psychoanalytic theory of personality.

c) Prerequisites/Revision/Introduction

Students have already acquired knowledge in psychoanalytic theory of Sigmund Freud and in Neo-Freudian psychoanalytic theory of personality. The knowledge about those different theories of personality will help them learn better the humanistic theory of personality.

d) Learning activities

Activity 3.3:
- Have students in small groups.
- Ask them to brainstorm on the questions in student books
- Invite students present in plenary.
- Provide constructive feedback.
- Link the students' ideas to the new lesson.

Suggested Answers to activity 3.3

1. Students will answer this question by yes or no. They will provide examples that support their position. For example:
   - If yes, they will provide examples such as not eating three times a day, not finding enough quantity of food every day, not finding money for buying clothes, for medical insurance, for school fees…
   - If no, they will say for example that they eat 3 times a day, the food is always of good quality, they are well dressed, they don't have difficult paying school and medical fees…

2. Answers from students will be different. Some may report cases of insecurity and explain them. Others may say that security is guaranteed. Their answers must be evidenced by clear examples.

3. Here again, answers from students are different. Every student will share his/her story.

4. Different kinds of aspiration can be explained by students:
   a) Becoming a teacher, an engineer, a doctor, a famous artist, a politician,
   b) Having a family
   c) Helping vulnerable people
   d) Starting a business
   e) Etc

Give supplementary needed explanations for students to consolidate and extend learning of Humanistic approach/theory.

e) Application activities 3.3:

1. (a) Psychoanalytic theory only examined emotionally disturbed side of human nature.

    (b) Psychoanalytic viewed humans as bundle of animal drives, libidinal forces and unconscious motivation.

2. They advocated studying extraordinary people to see why they were successful.

3. The central idea of Abraham Maslow was the hierarchy of human needs.

4. Those ways are:
   - Being genuine: being open to own feelings
   - Being accepting: offer unconditional positive regard
   - Being empathic: sharing another's feelings.

5. Critics:
   a) The concept is vague.
   b) Humanistic were concerned with satisfying their ego.

Lesson 3.4: Cognitive theories of Personality

a) Learning objective

Discuss implications of cognitive approach/theory in describing peoples' personality.

b) Teaching resources

Handouts and videos about cognitive theories of personality, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists, internet, flash cards, flip charts, wall charts with graphics to represent cognitive theories.

c) Prerequisites/Revision/Introduction (guidance on how to start the lesson)

The knowledge that students have acquired on the previous lessons (psychoanalytic theory of Sigmund Freud, Neo-Freudian psychanalytic theory and humanistic theories of personality) will enable them to understand the cognitive theory of personality.

d) Learning activities

Activity 3.4:

- Split students in small groups
- Invite students to read the question in student book.
- Ask them to share ideas in their groups.
- Invite students to share through presentation.
- Provide supplements.
- Link the students' answers to the new lesson.

Suggested Answers to activity 3.4

1. Social learning theory, theorized by Albert Bandura, posits that people learn from one another, via observation learning, imitation and modeling.

2. Uwiba ahetse aba abwiriza uwo mu mugongo is a Rwandan adage that explains how a young child in the back may learn the behaviour of his/her caregiver by observing what is being done. This is much related to Bandura's observational learning and this young child will later display the observed behaviour.

3. Although teacher has less influence on students' behaviour outside the school environment, within the classroom, they are the major source of modelled information. By observing teacher, students learn not only academic skills but also much important non-academic behaviours. They may learn interpersonal interaction skills by observing how teacher interact with them. They also adopt teacher's attitudes towards a variety of issues, ranging from those related to education and schooling to those extending beyond the classroom. They even imitate mannerisms that their teachers exhibit, ways of dressing and walking

Continue the lesson by discuss implications of cognitive approach/theory in describing peoples' personality.

e) Application activities 3.4:

1. Briefly summarize the view of social cognitive theory of personality.

a) It is basically a social learning theory based on the idea that people learn by observing what others are doing and that human thought processes are central to understanding personality.

b) Learned behavior has a significant impact on development as a result of interaction with the environment one is raised in.

c) It emphasises the rôle of cognitive processes such as reasoning and judgement in personality development.

2. Fill in the missing terms in the following sentence:

Albert Bandura proposed the --------------------**social-cognitive**------------------------perspective on personality which emphasizes the interaction of people with their environment. To describe the interacting influences of behavior, thoughts, and environment, he used the term-------------**reciprocal determinism**------------

3. You are given a number of concepts used by different theorists in the cognitive theory of personality. In the table you are provided some explanations of those concepts. Put the concepts in the table in front of their correct explanations. The concepts are: self-efficacy, cognitive processes, internal locus control, self-regulatory system.

Concepts	Explanations
Self-efficacy	Our expectations about whether we will succeed and attempt new challenges.
Internal locus control	A person with this personality believes that his rewards in life are guided by his own decision and efforts. If he/she does not succeed, he/she believes it is due to his/her own lack of effort.
Self-regulatory system	The groups of rules and standards that people adapt in order to regulate their behaviour.
Cognitive processes	All previously learned characteristics, including beliefs, expectations, and personality traits.

3.6. Additional information for teachers

1. Oedipus complex: The myth

The story begins with a son born to King Laius and Queen Jocasta of Thebes. The oracle at Delphi told them that their child would grow up to murder Laius and marry Jocasta. Horrified, the king fastened the infant's feet together with a large pin and left him on a mountainside to die. However, shepherds found the baby – who became known as Oedipus, or "swollen foot" – and took him to the city of Corinth.

There King Polybus and Queen Merope adopted him and raised him to think that he was their own son. When Oedipus was grown, however, someone told him that he was not the son of Polybus. Oedipus went to Delphi to ask the oracle about his parentage. The answer he received was, "*You are the man fated to murder his father and marry his mother.*"

Like Laius and Jocasta, Oedipus was determined to avoid the destiny, predicted for him. Believing that the oracle had said he was fated to kill Polybus and marry Merope, he vowed never to return to Corinth. Instead, he headed toward Thebes. Along the way, Oedipus came to a narrow road between cliffs. There he met an older man in a chariot coming the other way. The old man provoked a quarrel, and Oedipus killed the stranger and went on to Thebes.

Continuing toward on his way, Oedipus found Thebes plagued by a monster called the Sphinx, who put a riddle to all passers-by and devoured those who could not answer. Oedipus solved the riddle, and the Sphinx killed herself. He also found that that King Laius had been murdered on his way to seek help from the Delphic oracle. The riddle of the Sphinx was "What walks on four legs in the morning, two at noon, and three in the evening?" Oedipus gave the correct answer: "A human being, who crawls as an infant, walks erect in maturity, and leans on a staff in old age."

In reward, he received the throne of Thebes and the hand of the widowed queen, his mother, Jocasta. They had four children: Eteocles, Polyneices, Antigone, and Ismene. Then a dreadful plague came upon Thebes. A prophet declared that the plague would not end until the Thebans drove out the murderer of Laius, who was within the city. At the same time, a messenger then arrived from Corinth, announcing the death of King Polybus and asking Oedipus to return and rule the Corinthians.

Hearing that his father (King of Corinth) has passed away, Oedipus told Jocasta what the oracle had predicted for him and expressed relief that the danger of his murdering Polybus was past.

Jocasta told him not to fear oracles, for the oracle had said that her first husband would be killed by his own son, and instead he had been murdered by a stranger on the road to Delphi.

Suddenly Oedipus remembered that fatal encounter on the road and knew that he met and killed his real father, Laius. At the same time, Jocasta realized that the scars on Oedipus's feet marked him as baby whose feet Laius had pinned together so long ago. Faced with the fact that she had married her own son and the murderer of Laius, she hanged herself and Oedipus, after blinding himself, went into exile, accompanied by Antigone and Ismene, leaving his brother-in-law Creon as regent.

After years of lonely wandering, he arrived near Athens, where he found refuge in a **grove** of trees called **Colonus.** By this time, warring factions in Thebes wanted him to return to that city, believing that his body would bring it luck. However, Oedipus died at Colonus where he was swallowed into the earth and became a guardian hero of the land, and the presence of his grave there was to bring good fortune to Athens.

Note: A regent is a person who rules in place of the monarch especially when monarch is too young, absent or disabled**.**

2. Electra complex

Electra is one of the most popular mythological characters in tragedies. She is the main character in two Greek tragedies, *Electra* by Sophocles and *Electra* by Euripides. In psychology, the Electra complex is named after her.

Family

Electra's parents were Agamemnon King of Mycenae and Queen Clytemnestra. Her sisters were Iphigeneia and Chrysothemis, and her brother was Orestes.

Murder of Agamemnon

Electra was absent from Mycenae when her father, King Agamemnon, returned from the Trojan War. When he came back, he brought with him his war prize, the Trojan princess Cassandra, who had already borne him twin sons. Upon their arrival, Agamemnon and Cassandra were murdered, by either Clytemnestra herself, her lover Aegisthus, or both. Clytemnestra had held a long term animosity against her husband for sacrificing their eldest daughter, Iphigenia, to the goddess Artemis in exchange for a fair wind so that he could set sail for Troy. In some versions of this story, Iphigenia was saved by the goddess at the last moment.

Orestes was saved either by his old nurse or by Electra, and was taken to Phanote on Mount Parnassus, where King Strophius took charge of him. She stayed behind in Mycenae, living in **poverty** under constant surveillance while Clytemnestra and Aegisthus ruled the kingdom. Electra sent frequent reminders to Orestes that he must return to avenge the death of their father. Eight years later when Orestes was twenty, the Oracle of Delphi ordered him to return home and avenge his father's death. Orestes and his friend Pylades went secretly to Agamemnon's **tomb**. There they met Electra, who had come to **pour libations** and offer prayers for vengeance.

Murder of Clytemnestra

According to Aeschylus, Orestes recognized Electra's face before the tomb of Agamemnon, where both had gone to perform rites to the dead, and they arranged how Orestes should accomplish his revenge. Orestes and his friend Pylades, son of King Strophius of Phocis and Anaxibia, killed Clytemnestra and Aegisthus (in some accounts with Electra helping).

Before her death, Clytemnestra cursed Orestes. The Erinyes or Furies, whose duty it is to punish any violation of the ties of family piety, fulfill this curse with their torment. They pursue Orestes, urging him to end his life. Electra was not hounded by the Erinyes.

In *Iphigeneia in Tauris*, Euripides tells the tale somewhat differently. In his version, Orestes was led by the Furies to Tauris on the Black Sea, where his sister Iphigenia was being held. The two met when Orestes and Pylades were brought to Iphigenia to be prepared for sacrifice to Artemis. Iphigeneia, Orestes, and Pylades escaped from Tauris. The Furies, appeased by the reunion of the family, abated their persecution. Electra then married Pylades.

In psychology

The Electra complex was defined by Carl Jung, one of the pioneers of psychoanalysis and former collaborator of Freud. It was named after the Greek myth of Electra. In the myth, Electra persuades her brother to avenge her father's murder by helping her kill her mother and her lover.

3.7. End unit assessment

- Invite students to do the end unit assessment questions
- Collect their work and mark them
- Give them students feedback

1. Sigmund Freud's treatment of emotional disorders led him to believe that they spring from unconscious dynamics, which he sought to analyse through free associations and dreams. He referred to his theory and techniques as psychoanalysis. He saw personality as composed of pleasure-seeking psychic impulses (the id), a reality-oriented executive (the ego), and an internalized set of ideals (the superego). He believed that children develop through psychosexual stages, and that our personalities are influenced by how we have resolved conflicts associated with these stages and whether we have remained fixated at any stage

2. Tensions between the demands of id and superego cause anxiety. The ego copes by using defence mechanisms, especially repression.

3. Neo-Freudians Alfred Adler, Karen Horney, and Carl Jung accepted many of Freud's ideas. But Adler and Horney argued that we have motives other than sex and aggression and that the ego's conscious control is greater than Freud supposed, and Jung proposed a collective unconscious. Psychodynamic theorists share Freud's view that unconscious mental processes, inner conflicts, and childhood experiences are important influences on personality.

4. i-C   ii-D   iii-E   iv-A   v-B   vi-F

5. Humanistic psychologists sought to turn psychology's attention toward the growth potential of healthy people. Abraham Maslow believed that if basic human needs are fulfilled, people will strive toward self-actualization. To nurture growth in others, Carl Rogers advised being genuine, accepting, and empathic. In this climate of unconditional positive regard, he believed, people can develop a deeper self-awareness and a more realistic and positive self-concep*t*

6. Humanistic psychology helped to renew psychology's interest in the concept of self. Nevertheless, humanistic psychology's critics complained that its concepts were vague and subjective, its values Western and self-centred, and its assumptions naively optimistic.

7. In contemporary psychology, the self is assumed to be the centre of personality, the organizer of our thoughts, feelings, and actions. Research confirms the benefits of high self-esteem, but it also warns of the dangers of unrealistically high self-esteem. The self-serving bias leads us to perceive ourselves favourably, often causing us to overestimate our abilities and underestimate our faults. Are we helped or hindered by high self-esteem?

8. Self-actualizing people tend to be both aware and accepting of themselves. They are open and spontaneous. They tend to enjoy their work and typically feel they have a mission to fulfil. They have close friendships without being overly dependent on other people. They also tend to have good sense of humour. They are more likely than other people to have peak experiences that are spiritually or emotionally satisfying.

9. Examples of physiological needs: food, water, oxygen, sex.

10. (a) Physiological needs, (b) Safety needs, (c) Love and belongingness needs, (d) Esteem needs, (e) Self-actualization need.

11. This movement sought to turn psychology's attention away from drives and conflicts and toward our growth potential. This focuses on the way healthy people strive for self-determination and self-realization was in contract to Freudian theory and strict behaviourism.

12. (a) To be empathic is to share and mirror another person's feelings. Carl Rogers believed that people nurture growth in others by being empathic.

    (b) Abraham Maslow proposed that self-actualization is the motivation to fulfil one's potential, and one of the ultimate psychological needs.

    (c) To be emphatic: Used by Carls Rogers; Self-actualization: Abraham Maslow.

13. The social-cognitive perspective applies principles of learning, cognition, and social behaviour to personality, with particular emphasis on the ways in which our personality influences and is influenced by our interaction with the environment. It assumes reciprocal determinism—that personal-cognitive factors interact with the environment to influence people's behaviour.

14. By studying how people vary in their perceived locus of control (external or internal), researchers have found that a sense of personal control helps people to cope with life. Research on learned helplessness evolved into research on the effects of optimism and pessimism, which led to a broader positive psychology movement. What underlying principle guides social-cognitive psychologists in their assessment of people's behaviour and beliefs? Social-cognitive researchers study how people interact with their situations.

15. They tend to believe that the best way to predict someone's behaviour in a given situation is to observe that person's behaviour in similar situations.

16. Though faulted for underemphasizing the importance of unconscious dynamics, emotions, and inner traits, the social cognitive perspective builds on psychology's well-established concepts of learning and cognition and reminds us of the power of social situations. The theory does not provide a full explanation of how social cognition, behaviour, environment and personality are related theory known as reciprocal determinism) Another criticism is that the theory is not a unified theory. Another limitation is that not all social learning can be directly observed. The theory tends to ignore maturation throughout the lifespan.

3.8 Additional activities

Remedial activities

1. Psychologists seek to understand john's personality through his thoughts, beliefs and their impact on his behaviour in certain situations. This is known as the
   a) Trait approach
   b) Humanistic approach
   c) Cognitive approach
   d) Psychoanalytic approach
   e) All of the above

2. Who Neo-Freudian challenged his ideas about penis envy?
   a) Alfred Adler
   b) Fromm
   c) Carl Jung
   d) Karen Horne**y**

3. Someone who feels as though they are not living up to expectations would be described by Adler as having:
   a) low self-realization
   b) an Adlerian complex
   c) an inferiority complex
   d) low actualization

4. Humanistic psychologists embraced the idea of:
   a) Repression
   b) free will
   c) unconscious drives
   d) the id

5. Which of the following characteristics describe someone who, according to Maslow, is self-actualized?
   a) Creativity
   b) confidence
   c) spontaneity
   d) all of the above

6. Indicate the three subsystems of personality with their corresponding principles on which they operate according to Freud.
   - The id ⟶ The pleasure principle
   - The ego ⟶ The reality principle
   - The superego ⟶ Moralistic principles

7. Complete the following sentence: The term ----------------------- in Freudian theory refers to the failure to mature beyond a particular stage of psychosexual development.

   Answer: The term Fixation in Freudian theory refers to the failure to mature beyond a particular stage of psychosexual development.

8. Write down the names of two important figures in humanistic theory of personality >

   Answer: (1) Abraham Maslow, (2) Carl Rogers

9. Outline the human needs as they were proposed by Maslow.

   Answer: (1) Physiological needs, (2) Safety needs, (3) Love and belongingness needs, (4) Esteem needs, (5) Self-actualization need.

10. According to Carl Rogers, People nurture their growth in three ways. What are they?

    Answer: (1) Being genuine, (2) Being accepting, (3) Being empathic

11. Associate psychologist to their theories:

    a) Psychologists: Freud, Jung, Adler, Maslow, Bandura

    b) Theories: Humanistic, Psychodynamic theory, psychoanalytic theory, social-cognitive theory

    Answer:

(a) Psychologists	(b) Theories
Freud	Psychoanalytic
Jung	Psychodynamic
Adler	Psychodynamic
Maslow	Humanistic
Bandura	Cognitive theory

1. The following list represents the well-known psychologists. As a student in S5, based on what was learned in this unit, write their views in psychology.

Psychologists	Views
Sigmund Freud	Psychosexual development
	Personality structure
Albert Bandura	Social learning theory
Carl Jung	Introversion and extroversion
	Collective unconscious
Abraham Maslow	Hierarchy of human needs

2. How Oedipus and Electra complex take place respectively in boys and girls during the phallic stage as explained by Sigmund Freud?

   Answer:

   - Oedipus complex. This takes place when a boy seeks sexual pleasure by associating with his mother but hates his father and sees him as a rival.

   - Electra complex. It takes place when a girl seeks sexual pleasure by associating with her father but hates the mother and sees her as a rival.

3. Provide an example of a defense mechanisms called 'Projection'.

   Answer: For example, a student in secondary school may attribute poor   academic performance to a "poor" teacher.

4. For each category of human needs of Maslow, provide a clear example.

   Answer:

   - **Physiological needs:** Examples - air, water, food, clothing and shelter.
   - **Safety needs:** For instance - Job security, financial security, protection from animals, family security, health security, etc.
   - **Social needs** (Love and belonging needs) – Having friends, need for love and care, belong to certain group such as clubs, choirs, …
   - **Esteem needs** - Internal esteem needs (self- respect, confidence, competence, achievement and freedom) and external esteem needs (recognition, power, status, attention and admiration).

- **Self-actualization need**
a) The need for growth and self-contentment.
b) Desire for gaining more knowledge, social-service, creativity and being aesthetic.

Extended activities

1. According to you, what is the importance of studying theories of personality?

Some answers*:*
- They offer standardized descriptions of behaviours and traits which can be compared between subjects, and they indicate whether subjects are healthy or need help.
- Theories of personality play a crucial role in providing an understanding on the existing human behaviour and interactions.
- Personality theories provide a better environment where it is easier to understand human developmental concepts, which explains the various changes in individual behavioural changes.
- Studying theories of personality creates categories, based on personal cognitive preferences, that give a sense of why people do things and think the way they do, and you get a sense of how best to interact with them, and not expect them to think and act like you. It helps you understand yourself as well.
- Studying theories of personality helps in identifying how we as humans have similar traits that can be individually identified and gives a way of describing unique behaviours for everyone.

2. Ruki is a villain. He is a violent, angry, and rude person. He created a group of peers based on their bad characters. He always thinks that in a jungle, big animals must kill small ones to survive. Everyone must fight to survive. The gang he belongs to is known for looting, stealing, and beating people. He always thinks that there is no love among people.

a) Based on this description, which type of personality corresponds to Ruki among the types proposed by Karen Horney?

b) Write down another story to describe another type of personality highlighted by Karen Horney.

Answer:

a) Based on the scenario Ruki corresponds to aggressive personality type.

b) The student will compose a scenario like the proposed one and describe one of the other type of personality according to Karen Horney.

3. Based on knowledge you have in psychoanalytic theory, explain whether Oedipus complex exists or not in Rwandan culture.

    Answer: Students will base on example from their location and explain their position.

4. What, according to Freud, some of the important defense mechanisms, and what do they defend against?

    Answer: Freud believed repression to be the basic defense mechanism. Others include regression, reaction formation, projection, rationalization, and displacement. All supposedly serve to reduce anxiety. Modern research supports the phenomenon Freud called projection and current researchers call the false consensus effect. Some evidence also supports self-esteem defences, such as reaction formation. But there is little support for the others.

5. What was Freud's view of personality and its development?

    Answer: Sigmund Freud's treatment of emotional disorders led him to believe that they spring from unconscious dynamics, which he sought to analyse through free associations and dreams. He referred to his theory and techniques as psychoanalysis. He saw personality as composed of pleasure-seeking psychic impulses (the id), a reality-oriented executive (the ego), and an internalized set of ideals (the superego). He believed that children develop through psychosexual stages, and that our personalities are influenced by how we have resolved conflicts associated with these stages and whether we have remained fixated at any stage.

PESRONALITY TYPOLOGIES

4.1. Key unit competence:

Classify the personality typologies.

4.2. Prerequisite (knowledge, skills, attitudes, and values)

The students are aware of the concept of personality (meaning and trends). Moreover, in the unity three, they learnt different theories of personality. To be able to learn the personality traits, students must build on knowledge acquired in previous unit (unit 3). Personality typologies are based on several theories developed by different psychologists. The content learned in unit 3 will be helpful to students to master the content of unit 4.

4.3. Cross-cutting issues to be addressed

During this unit "personality typology" cross cutting issues such as genocide studies, gender, comprehensive sexuality, peace and value education and inclusive education will be addressed.

Genocide studies: This cross-cutting issue will be tackled when dealing with different personality traits. The teacher will explain that the difference of people in terms of personality traits could not be a source of discrimination that could lead to problems including genocide. The difference in people's make up or personality is a positive aspect leading them to complement each other.

Gender: The teacher should bear in mind that all students (girls and boys) have equal opportunities and rights to study. When forming group activities, assigning tasks and responsibilities, asking questions, and giving feedback tutor should include both girls and boys.

Peace and value: Through teaching and learning, the culture of peace and values should be promoted. In group, students learn to share resources and ideas with respect. They also learn to solve their problems in a peaceful manner.

Inclusive education will be tackled all along the unit. The lesson will be inclusive. This means that learners. Both genders will be respected in doing activities and answering questions. For example, in some activities requiring group work, the teacher must make sure that inclusive education is respected.

4.4. Guidance on introductory activity

- Distribute sheets of paper containing guidance on how the activity will be done.
- Ask students to compose their letters.
- Invite students to exchange letters in pairs and explain each other the kind of persons they described in letters.
- Invite students to present their works in plenary.
- Supplement students' presentations and link students' answers on the new lesson

Introductory activity

Possible answers to introductory activity

1. Students will write the letters based on provided instructions.

2. Students will give their answers. In ten years, their personalities will be different. Some will be married, some will be studying in universities, some will be having different jobs… all those things will impact their personalities.

3. Their thinking and acting change over time. People are subject to influences from interaction with other people. As they grow up, their thinking change. The way of thinking of an infant of 4-year-old changes over time, hence their actions also change with time. As we get older, we are likely to lose some memories and strengths, hence thinking and working reduce.

4.5. List of lessons

	Lesson title/subheading	Learning objectives	Number of periods
1	Concepts of personality typologies	Identify different personality typologies	4
2	Typologies: Classification of personality by Heymans and Wiersma	Analyse the basis that makes people different	4
3	Typologies: Trait approach, Extrovert and Introvert	Describe individuals' behaviour based on traits approach	4

4	Trait theory: The Big Five Theory (openness, conscientiousness, extraversion)	Discuss characteristics of personality	4
5	Typologies: Personality preferences of Myers-Briggs	Explain personality preferences of Myers-Briggs	4
6	End unit assessment		2
	Total number of periods		30

Lesson 4.1: Concepts of personality typologies

a) Learning objective:

Identify different personality typologies.

b) Teaching resources:

Handouts and videos about personality typology, handouts with classroom-based strategies that relate to this content, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent personality typology.

c) Prerequisites/Revision/Introduction:

Students already have knowledge of the concept of personality and related terms. They will build on this knowledge to be able to learn better the knowledge included in this lesson about "concept of personality typologies".

d) Learning activities

Activity 4.1:

- Invite students to read individually the scenario and work in pairs to share with the classmate.
- Have some pairs to make presentations.
- Invite learners to provide answers the 2 new questions.
- The teacher will comment on the students' answers and will supplement them.

Suggested Answers to activity 4.1

Question 1:
 a) Each student will select adjectives that describe best their behaviours.
 b) The student will choose adjectives that describe their worst personality. Answers could not be similar.

Question 2:
 a) Psychoanalytic: Sigmund Freud
 b) Psychodynamic: Neo-Freudians (Adler, Jung, Horney)
 c) Humanistic: Abraham Maslow & Carl Rogers
 d) Social cognitive: Albert Bandura

Question 3: Physiological needs: Examples: air, water, food, clothing and shelter.

 - **Safety needs: For instance** - Job security, financial security, protection from animals, family security, health security, etc.
 - **Social needs (Love and belonging needs):** For instance – Having friends, need for love and care, belong to certain group such as clubs, choirs, …
 - **Esteem needs:** Examples of internal esteem needs (self- respect, confidence, competence, achievement and freedom. Example of external esteem needs (recognition, power, status, attention and admiration).
 - **Self-actualization need:** Example: the need for growth and self-contentment; Desire for gaining more knowledge, social- service, creativity and being aesthetic.

Continue the lesson with more explanation on different personality typologies.

e) Application activities 4.1:

Suggested Answers to application activity 4.1

1. (a) In psychology, typology would serve the same function as taxonomic systems in other sciences.

   (b) Just as animal taxonomy helps life sciences, individual could be classified into groups and then we would know something about them based on their personality type.

(c) Typology would provide an effective descriptive system for conveying general information about an individual and help us refine our predictions.

2. Morphological typologies are based on searching the resemblance and difference of behaviour traits through individual form and structure while physiological traits are based on the difference between the nervous system functioning and endocrine gland functioning.

3. Extraversion (or extroversion) tends to be manifested in outgoing, talkative, energetic behaviour, whereas introversion is manifested in more reserved and solitary behaviour.

4. No two individuals are alike, but the differences are largely a matter of degree. Example: Everyone can be classified as more or less sociable. But sociability can be seen as a continuum with two extremes. Most people fall between these two extremes

Lesson 4.2: Classification of personality by Heymans and Wiersma

a) Learning objective

Analyse the basis that makes people different.

b) Teaching resources

Handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists, internet, flash cards, flip charts, wall charts with graphics to represent the typology of Heymans and Wiersma.

c) Prerequisites/Revision/Introduction

Students have already knowledge in the nature and meaning of typology and traits. In their everyday life, they know different people with different traits. They will build on this experience to learn better this lesson about "classification of personality by Heymans and Wiersma".

d) Learning activities

Activity 4.2:
- Invite students to work in pairs and read the scenario written on sheets of paper.
- Ask them to answer the asked questions.
- Invite pairs to exchange sheets of paper for comments.
- Ask them to share their findings in plenary sessions.
- Supplement students' answers.

1. Kanani's wife: Outspoken, irritable, outgoing, extrovert, rude, impulsive, primary, aggressive, hot, noisy….

   Matubo's wife: introvert, calm, thoughtful, reserved, quiet.

2. Sociability, shyness, passivity, aggressivity, optimism, pessimism, kindness, honesty, aggression, cooperation, irritability, perfectionism, self-control, openness to change, sensitivity, impulsivity, self-reliance, emotional stability, warmth, anxiety, scepticism, boldness, dominance, …

3. Students' reactions will vary. Some may prefer a person like Kanani's wife, others may prefer a person with characters like Matubo's wife. The important thing is to explain their positions.

Give more explication on types of personality emphasizing on basis that makes people different

e) Application activities 4.2:

Suggested Answers to application activity 4.2

1.
a) He relied on the biographical method and the questionnaire method for his work in differential psychology.
b) In his research, he discussed the results of an extensive biographical study in which he coded 110 mostly well-known historical figures.
c) He also coded all subjects on three major personality traits: emotionality, activity, and the relative importance of the primary or secondary function.
d) With every dimension having two poles: + and −; Heymans constructed the following eight types (temperaments) by combination of the three variables in binary form.
e) He put all the eight types on a cube.

2.
a) Neurotic: $E^+A^-S^-$
b) Sentimental: $E^+ A^- S^+$
c) Choleric: $E^+ A^+ S^-$

d) Phlegmatic: E⁻ A⁺ S⁺

e) Amorphous: E⁻A⁻ S⁺

3.

a) Activity (x-axis): energy and quantity of action in response to a motive or stimulus.

b) Emotivity (y-axis): strength and frequency of emotional response to an event or stimulus.

c) Secondarity: degree to which emotions, events, or images have long term effects.

Lesson 4.3: Trait approach

a) Learning objective

Describe individuals' behaviour based on traits approach.

b) Teaching resources

Handouts with classroom-based strategies that relate to this lesson about trait approach, fact sheets about different theorists, internet, flash cards, flip charts, wall charts with graphics to represent the content on trait approach.

c) Prerequisites/Revision/Introduction

Having already acquired the knowledge on typology of Heymans and Wiersma, students will learn easily the content on trait theories. Building on the previous lessons, students will learn better trait approach.

d) Learning activities

Activity 4.3:

- Invite students to work in pairs and read the scenario written on sheets of paper.
- Ask them to answer the asked questions.
- Pairs to exchange sheets of paper for comments.
- Ask them to share their findings in plenary sessions.
- Supplement students' answers.

1. According to the story, Mary and her friends Mugeni would be classified under extroverted individuals Kagoyire on the other hand is in the introvert.

2. On this question, the answer is not fixed and student share their different ideas based on what they learnt in previous lessons

Give more explanation on individual's' behaviour based on traits approach

e) Application activities 4.3:

Cattel proposed 16 source or primary traits and their opposing tendencies. In the following table, you are requested to write down the opposing tendencies of the given source traits.

S/N	Primary/source traits	Opposing tendencies
1	Reserved	Outgoing
2	Humble	Assertive
3	Shy	Venturesome
4	Trusting	Suspicious
5	Practical	Imaginative
6	Conservative	Experimenting
7	Group-dependent	Self-sufficient
8	Relaxed	Tense

Lesson 4.4: The Big Five theory

a) Learning objective

Discuss characteristics of personality

b) Teaching resources

Handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists, internet, flash cards, flip charts, wall charts with graphics to represent illustrate and visualize the lesson on Big Five Theory.

c) Prerequisites/Revision/Introduction

Students have already knowledge in the nature and meaning of typology and traits. In their everyday life they know different people with different traits. They have also learnt some previous lessons on personality traits. They will build on this experience to learn better this lesson about "Big Five Theory".

d) Learning activities

Activity 4.4:

- Distribute to all learners' sheets of paper containing different behaviours.
- Ask them to tick in front of the behaviour which is theirs.
- Invite students to exchange sheets of papers in pairs.
- Ask some to present and summarize their personalities.
- Supplement students' answers and link them to new lessons.

Suggested Answers to activity 4.4

- Students will tick in front of some characters or behaviours. After ticking, they will make a summary of their personality. Other students will comment on provided answers.

- Give supplement on characteristics of personality that help to understand the Big Five theory

e) Application activities 4.4:

Suggested Answers to application activity 4.4

1. **OCEAN:** *Openness to experience, Conscientiousness, Extraversion, Agreeableness, Neuroticism*

2. **Strengths:**
   - A strength of the Big Five test model is that it has proven to be fairly accurate in predicting patterns of behaviour over a period of time.
   - Strengths of the Big Five include its popularity with academic researchers and theorists; it has made significant contributions in research involving gender differences, learning methods, academic success, cultural differences, personality disorders, career success, and heritability.

Weaknesses:

- The factors of the personality test are not independent of each other; for example, a pleasant person is more likely to be open and outgoing.
- The Big Five omits several important personality traits such as sense of humour, masculinity, femininity, honesty, manipulativeness, and frugality.
- Finally, The Big Five also presents the possibility of falsification and bias because the answers are collected through self-answered questions.

3. People with high agreeableness tend to be popular, respected, and sensitive to the needs of others

Lesson 4.5: Personality preferences of Myers-Briggs

a) Learning objective

Explain personality preferences of Myers-Briggs

b) Teaching resources

Handouts, fact sheets about different theorists, internet, flash cards, flip charts, wall charts with graphics, projectors...

c) Prerequisites/Revision/Introduction

Students have already knowledge in the nature and meaning of typology and traits. They have already learned some lessons related personality traits such the typology of Heymans, the Big Five Model… They will build on this experience to learn better this lesson about "personality preferences of Myers-Briggs".

d) Learning activities

Activity 4.5:

- Distribute the questionnaire to all students.
- Ask them to encircle the answers corresponding to their preferences.
- Invite pairs to exchange sheets of paper for comments.
- Invite students to analyze and come up with a personality type that results from the answers.
- Ask them to share their findings in plenary sessions.
- Supplement students' answers and link them to new lesson.

- Students will summarise their answers and analyse them. Then after, they will describe the personality that result from this analysis.

Continue with more explanation related to personality preferences of Myers-Briggs

e) Application activities 4.5:

Suggested Answers to application activity 4.5

1. MBTE is a self-inventory designed to identify an individual's personality type, strength and preferences.

2. The answer is b.

3. Main traits are:
   a) Extraversion-Introversion
   b) Sensing-Intuition
   c) Thinking-Feeling
   d) Judging-Perceiving

4. Types ;

   ENFP : The champions : charismatic & energetic ; they enjoy situations where they can put their creativity to work.

   ESFP : The performer : outgoing & spontaneous ; they enjoy centre stage.

4.7. End unit assessment

- Invite students to do an end unit assessment
- Collect their works and mark them
- Give students feedback as soon as possible

1. Rather than explain the hidden aspects of personality, trait theorists attempt to describe our stable and enduring characteristics. Through factor analysis, researchers have isolated important dimensions of personality. Genetic predispositions influence many traits.

2. The introvert person is an individual who is optimistic, talkative, responsive and lively. S/he prefers the word outside himself/herself. The extremes are outgoing friendly type and are aggressive personalities while an introvert is one who prefers satisfaction with the world within himself/herself. He/she enjoys being alone, he/she retreats to his/her world when he encounters difficulties in life. He/she is often shy and cautious. Extremes are prone to maladjustments or behaviour disorders such as depressions and hallucinations.

3. In this activity student teachers have time to do the task in pairs and make presentations. They may use Allport 3 levels of personality traits:
   - Cardinal traits
   - Central traits
   - Secondary traits

4. The Big Five personality dimensions' stability, extraversion, openness, agreeableness, and conscientiousness offer a reasonably comprehensive picture of personality.

5. Criticism:
   - This model has limitations as an explanatory or predictive theory and that it does not explain all of human personality.
   - Some psychologists have dissented from the model because they feel it neglects other domains of personality, such as religiosity, manipulativeness, honesty, sexiness/seductiveness, thriftiness, conservativeness, masculinity/femininity, snobbishness/egotism, sense of humour, and risk taking/thrill-seeking.
   - Factor analysis, the statistical method used to identify the dimensional structure of observed variables, lacks a universally recognized basis for choosing among solutions with different numbers of factors.
   - A five-factor solution depends on some degree, on the interpretation of the analyst. A larger number of factors may, in fact, underlie these five factors; this has led to disputes about the "true" number of factors.

- Another frequent criticism is that the five-factor model is not based on any underlying theory; it is merely an empirical finding that certain descriptors cluster together under factor analysis. This means that while these five factors do exist, the underlying causes behind them are unknown.

6. On this question, the student needs to analyse the characteristics of 5 dimensions of personality traits and classify his/her personality and that one of his/her friends. For example, the student may say that he/she is openness while his/her friend is agreeable according to the traits they have.

7. Eddy can be put in the category of Psychoticism-Normality.

4.8. Additional activities

Remedial activities

1. Talkative vs. silent; frank, open vs. secretive; adventurous vs. cautious; sociable vs. reclusive. Which dimension of personality are described by these traits?
   a) Agreeableness
   b) Conscientiousness
   c) Extraversion
   d) Culture
   e) Emotional Stability

2. Who is the pioneer that proposed the 16 basic dimensions of normal personality and devised a questionnaire (16PF) to measure them?
   a) Carl Jung
   b) Raymond Cattell
   c) Julian Rotter
   d) Gordon Allport
   e) None of the above

3. From the Big Five personality dimensions, behaviours such as speaking fluently, displaying ambition, and exhibiting a high degree of intelligence is:
   a) Agreeableness
   b) Openness
   c) Extraversion
   d) Conscientiousness
   e) Neuroticism

4. Devin's personality is researched through 3 factors: extraversion, neuroticism, and psychoticism. This personality trait model is called:
   a) Eysenck's Trait Model
   b) Myers-Briggs Type Indicator
   c) Smith Model
   d) Cattell's Sixteen factor Model
   e) Big Five

5. What is the trait approach to personality?
   a) Assumes that people are motivated by unconscious emotional conflicts.
   b) Assumes that each individual has stable personality characteristics.
   c) Assumes that people's thoughts and beliefs are central to personality.
   d) Assumes that people have an innate tendency to become self-actualized.
   e) Assumes that people are motivated by conflicts originating in childhood.

6. Eysenck originally developed _____, a highly researched factor theory of personality.
   a) an interpersonal trait model
   b) a sixteen-factor model
   c) a three-factor model
   d) the Big Five
   e) the Implicit personality theory

7. According to Eysenck, extraverts seek to _____ their arousal while introverts seek to _____ their arousal.

   a) decrease, increase

   b) hide, reveal

   c) increase, decrease

   d) reveal, hide

8. What is a trait?

   Answer: A trait is defined as any relatively enduring way in which one individual differs from another.

9. He is shy, contemplative, reserved, tends to have difficulty adjusting to social situations, excessive daydreaming and introspection, careful balancing of considerations before reaching decision, cautious. Which personality type is this person according to Jung?

   Answer: An introvert person

10.

   i)   Write OCEAN in full:

        Answer: Openness to experience; Conscientiousness, Extroversion, Agreeableness and Neuroticism.

   ii) How do we call the personality traits of OCEAN?

        Answer: Big Five Personality Traits

11. The 16 types of personality preferences developed by Myers and Briggs came from a combination of 4 main traits:

   i)   What are those 4 main traits?

        Answer: Extraversion (E)-Introversion (I), Sensing (S)-Intuition (N), Thinking (T)-Feelings (F)

   ii) Write down names given to the following types?
   -   ISFJ:
   -   INFP:
   -   INTP:
   -   ENTP:
   -   ENTJ:

Answer:
- ISFJ: The protector
- INFP: The mediator
- INTP: The thinker
- ENTP: The debater
- ENTJ: The Commander

12. Write down any four types of Heymans

Answer: Choleric, Passionate, Sentimental, Phlegmatic, Amorphous, Neurotic, Sanguine, Apathetic

Consolidation activities

1. Allport believed that traits could be organized into three levels:
   a) primary, secondary, tertiary
   b) cognitive, emotional, physiological
   c) id, ego, superego
   d) cardinal, central, secondary

2. Which of the following is NOT one of the Big Five traits?
   a) sense of humour
   b) openness to experience
   c) conscientiousness
   d) Extraversion

3. Traits are defined as:
   a) physical characteristics that distinguish us from other people
   b) relatively enduring characteristics that influence our behaviour across many situations
   c) unconscious tendencies to act in different ways according to the situation
   d) permanent personality tendencies that determine our behaviour in any situation

4. Rohan is self-disciplined, focused on achievement and keen to do his duty. He would be expected to score highly on:

a) neuroticism

b) agreeableness

c) extraversion

d) Conscientiousness

5. Lana is friendly, always willing to help others and compassionate. We would expect Lana to score highly on:

a) extraversion

b) agreeableness

c) neuroticism

d) openness to experience

6. Which assumption of personality traits is shown in this example: A person who is shy at parties at age twenty is likely still to be shy at a party, five, ten, even twenty years later ?

Answer: *Personality traits are relatively stable over time.*

7. Provide examples of the following traits coined by Cattel.

- **Common traits:** *e.g.; honesty, aggression, cooperation.*
- **Unique traits:** *self-esteem, intelligence, introversion*
- **Surface traits:** *e.g.; curiosity, integrity, tactfulness dependability.*
- **Source traits:** *e.g.: dominance and emotionality.*

8. Write down the names of Heymans types from the following formulas:

- $E^+A^-S^-$: Neurotic
- $E^+ A^- S^+$: Sentimental
- $E^+ A^+ S^-$: Choleric
- $E^- A^+ S^+$: Phlegmatic
- $E^-A^-S^+$: Amorphous

1. Does research support the consistency of personality traits overtime and across situations?

   Answer: Although people's traits persist over time, their behaviours vary widely from situation to situation. Despite these variations, a person's average behaviour across different situations tends to be fairly consistent.

2. Are personality traits inherited or learned?

   Answer: Personality is largely determined by heredity. Typically, personality does not change over one's lifetime. People do tend to become more emotionally stable and agreeable as they age.

3. Why is it important to study personality traits?

   Answer:

   - Understanding personality type can help you to understand your preferences and the preferences of other people and how or why these might be different.
   - Personality types are useful for recognizing how we lead, influence, communicate, collaborate, negotiate business and manage stress.
   - There are many ways in which understanding personality type can be applied to the workplace.
   - It can help with our leadership style, to resolve conflicts more effectively, to communicate more effectively, to understand how others make decisions, to coach others, to improve sales skills and to retain key staff.

HISTORY OF LEARNING PSYCHOLOGY

5.1. Key unit competence

Examine the history of learning Psychology

5.2. Prerequisite

Students will learn and understand better this unit since they have understood developmental psychology and branches of psychology learnt in senior four. The prior knowledge on learning personality seen in unit 1-3 of senior five will also facilitate their understanding of this unit 5. In this unit, students will need to refer and make comparison to their everyday experiences related their studies.

5.3. Cross-cutting issues to be addressed

Gender education: The teacher should bear in mind that all students (girls and boys) have equal opportunities and rights to learn. When forming group activities, assigning tasks and responsibilities, asking questions, and giving feedback teacher should include both girls and boys.

Peace and Values Education

This cross-cutting issue will be addressed throughout this unit by making students aware of the root causes of conflicts, violence and disturbances among students. Students must be able to resolve conflict that arises among themselves. Therefore, the history of learning psychology will promote peace instead of destroying it.

Environment and sustainability

This may be broadly understood to mean our surroundings. The teacher will mention it by emphasizing the ways of protecting the environment not destroying it especially when collecting and using materials.

Inclusive education

When teaching this unit, the teacher will address specific needs and differences among students. All students including those with special educational needs will be catered for. Teacher will avoid any kind of discrimination.

5.4. Guidance on introductory activity

- Invite students make groups
- Let them use internet, read books from library and discuss about the historical background of learning psychology.
- Invite some groups to present their findings.
- Allow students ask questions
- Invite some students make summary of the presentations
- Provide supplements and constructive feedback.

Introductory activity

The history of learning psychology rooted in the period of before Jesus Christ. Philosophers such as Socrates and Plato ideas about learning are still implemented in our day's education. After Jesus Christ many other psychologists such as John Watson, Skinner, Thorndike, Ebbinghaus, Piaget and many others continued to theorize about learning including early approaches. Some those early approaches to learning include behavioural, emotional, cognitive self-regulation, creativity, curiosity and initiative.

Analyse and consider all ideas that students got from internet and books.

5.5. List of lessons

	Lesson title/sub heading	Learning objectives	Number of periods
1	Understanding learning	Describe learning	1
2	**Early approaches of learning:** Emotional and Behavioral Self-Regulation,	Analyze the contribution of emotional and behavioral self-regulation to learning	3
3	**Early approaches of learning:** Cognitive Self-Regulation (Executive Functioning),	Describe the impact of cognitive self-regulation to learning	3
4	**Early approaches of learning:** Initiative and Curiosity, Creativity	Explain the role of initiative, curiosity and creativity to learning	4

5	Psychologists and learning theories: Socrates Plato	Analyze psychologists' and learning theorists' contribution to learning **'Socrates and Plato'**	3
6	Psychologists and learning theories: Thorndike John Watson Ebbinghaus	Assess the contribution of psychologists' theories to learning	4
7	Psychologists and learning theories: Skinner Jean Piaget	Appreciate the role of psychologists' theories to learning	4
8	End unit assessment		2
	Total number of periods		24

Lesson 5.1: Understanding learning

a) Learning objective

Describe learning

b) Teaching resources

Flip chart, markers, flash cards, books, ICT tools and handouts

c) Prerequisites/Revision/Introduction

Student will learn better key the concept of learning since they have an understanding on brain and cognitive development seen in senior four.

d) Learning activities

Activity 5.1

- Invite students to join pairs
- Ask them use internet and/or books to find out the meaning of learning.
- Have some pairs to present their findings
- Allow students ask questions
- Provide supplements and constructive feedback.
- Invite students to share key take away from discussions.

- Learning is a semi-permanent change in mental processes or associations
- Learning is construction of own knowledge/meaning/understanding based on experiences
- Learning is a relatively permanent change in behavior and mental processes
- Learning takes place through social interaction

– Provide supplementary needed explanations on the meaning of learning to extend their learning.

e) Application activities

Suggested Answers to application activity 5.1

1. …………………c
2. …………………d
3. …………………a
4. …………………b
5. …………………d

Lesson 5.2: Early approaches of learning: Emotional and Behavioral Self-Regulation

a) Learning objective

Analyze the contribution of emotional and behavioral self-regulation to learning

b) Teaching resources

Flash cards, handouts, computer and internet

c) Prerequisites/Revision/Introduction

Students will learn better the contribution of emotional and behavioural self-regulation to learning since they have an understanding on emotional and social development learned in senior four.

d) Learning activities

Activity 5. 2

- Put students in pairs
- Bring students to the smart classroom and school library
- Invite them to make a research and find out the difference between emotional self-regulation and behavioural self-regulation.
- Ask them to work in pairs and share their findings
- Have some pairs to make presentations.
- Ask some students to make summary from the presentations
- Provide supplements and constructive feedback to enable them consolidate their learning

Suggested Answers to activity 5.2

Emotional self-regulation and behavioral self-regulation are different in the following ways:

– Emotional self-regulation refers to a persons' ability to understand and manage their emotions, behaviors, impulses and reactions while behavioral self-regulation refers to one's ability to resist using unhealthy behaviors to regulate emotions.

– Give supplementary needed explanations to clarify misconceptions.

e) Application activities

Suggested Answers to application activity 5.2

Emotional self-regulation and behavioral self-regulation play the important role in children's learning because all of them help children work well at school, make positive relationship with colleagues, learn to cope with challenging situations, learn to respond accordingly, learn to manage their reactions and emotions, learn live with others, learn to distinguish between what is good and wrong…

Lesson 5.3: Early approaches of learning: Cognitive Self-Regulation (Executive Functioning)

a) Learning objective

Describe the impact of cognitive self-regulation to learning

b) Teaching resources

Flash cards, computers with internet connectivity, books from library and handouts

c) Prerequisites/Revision/Introduction

The understanding of cognitive, social and emotional development learned in senior four will help students to learn better the cognitive self-regulation.

d) Learning activities

Activity 5.3

- Put students in pairs
- Bring students to the smart classroom and school library
- Ask each pair to find out any information related to cognitive self-regulation.
- Have some pairs to share their findings to the whole class
- Invite some students to make summary from presentations
- Allow students ask questions about presentations

Suggested Answers to activity 5.3

Cognitive self-regulation is the ability to control and sustain thinking and attention as well as resist to distraction. It involves the abilities such as maintaining attention, control impulses, flexibility in thinking, hold information…

With clear examples, provide deep explanations on cognitive self-regulations for students to consolidate and extend their learning.

e) Application activities

Suggested Answers to application activity 5.3

Cognitive self-regulation improve students' memory, enables learners to socialize withers at school, helps learners work well at school, helps them remain engaged in classroom activities, helps them have a plan, enables them give organized thoughts…

Lesson 5.4. Early approaches of learning: Initiative and Curiosity, Creativity

a) Learning objective

Explain the role of initiative, curiosity and creativity to learning

b) Teaching resources

Flip chart, markers, Flash cards, books, computer and internet connectivity, and handouts

c) Prerequisites/Revision/Introduction

Students will learn better this lesson based on every day experiences. By observing different people who successfully initiated, created and innovated various projects respectively in their communities.

d) Learning activities

Activity 5.4

- Put students in groups of four
- Bring students in smart classroom and school library
- Invite each group to find the meaning of initiative, creativity and curiosity
- Invite some groups to share in a plenary session their findings
- Give students opportunity to ask questions for more clarifications
- Provide supplements and positive feedback

Suggested Answers to activity 5.4

- Initiative is the ability be resourceful and work without always being told/ asked what to do. It is a personal quality that shows a willingness to things done and take responsibility.
- Curiosity: Is a natural interest that humans have in the world around them. It is also defined ad a strong desire to know or learn something.
- Creativity: Is the interaction between the learning environment both physical and social, the attitudes and attributes of both teachers and students, and a clear problem solving process which produces a perceptive product.

– Provide deep explanations for students consolidate and extend learning.

e) Application activities

Suggested Answers to application activity 5.4

- Initiative enables students do thinks without being told, solve problems that others may not have noticed needed solving, helps students have resilience and determination, enables them to be resourceful, enables them think for themselves and take action when necessary.
- Curiosity: It enables learners able to make connections among various pieces of information; it makes learners active in learning; it prepares the brain for learning and makes subsequent learning more enjoyable. Curiosity leads to better academic performance, curiosity makes students' mind active…
- Creativity: It provides a place for students to express thoughts and feelings; helps students to generate new innovative ideas; it gives students freedom to explore their surroundings and learn from them; it allows students to view and solve problems more openly and with innovation…

Lesson 5.5. Psychologists and learning theories: Socrates and Plato

a) Learning objective

Analyze psychologists' and learning theorists' contribution to learning from 'Socrates and Plato'

b) Teaching resources

Flip chart, markers, Flash cards, books, handouts, computers and internet connectivity

c) Prerequisites/Revision/Introduction

Students will learn better the contributions of Socrates and Plato to learning due to the knowledge they have on branches of psychology particularly developmental and educational psychology.

d) Learning activities

Activity 5.5

- Put students in pairs
- Bring students in smart classroom and school library
- Invite each pair to use internet and read books to find out the contributions of Socrates and Plato

- Invite students to share their findings in plenary
- Give students time to ask questions for more clarifications.
- Provide supplements and constructive feedback

Suggested Answers to activity 5.5

Socrates: He invented Socratic method/technique of question and answer in which teachers should teach using leading questions to help leaners to make discoveries. For him, the dialogue between teacher and learner is most important to learning.

Plato: Plato invented the theory of allegory of the cave concerning human observation. He ensured that knowledge increased through senses in close to sentiment so as to have veritable knowledge, we must get it through reasoning. He argued that children should learn through play with the objects they enjoy and emphasized on education for both boys and girls.

Give supplementary needed explanations for students to consolidate and extend learning.

e) Application activities

Suggested Answers to application activity 5.5

Socrates suggested that educators to teach through questions and answers. This method of teaching enables students think and reflect on what to learn and how to learn it. With this technique, he instated the belief that the life which is not examined is not worth living. He stressed that the society teaches through different domains of activities that take place within it.

Plato introduced the theory of allegory of the cave by which he challenges people's minds by inviting to think out of the box. He argued that people should not get satisfied by only what they but also try to find what is hidden behind what they see. He calls teachers use play in teaching and learning processes. He advocated education for all children both boys and girls.

Lesson 5.6. Psychologists and learning theories: Thorndike, John Watson and Ebbinghaus

a) Learning objective

Assess the contribution of psychologists' theories to learning' Thorndike, Watson and Ebbinghaus'

b) Teaching resources

Flip chart, markers, Flash cards, books, computers, internet connection and handouts

c) Prerequisites/Revision/Introduction

Students will learn better this lesson since they have an understanding on branches of psychology especially developmental and educational psychology.

d) Learning activities

Activity 5.6

- Put students in pairs
- Bring students in smart classroom and school library
- Invite students to find the contribution of Thorndike, John Watson and Ebbingaus to learning
- Have some pairs to present findings
- Give students opportunities to ask questions about presentations
- Ask some students make summary of all presentations.
- Provide supplements and constructive feedback

Suggested Answers to activity 5.6

Thorndike put forward a learning theory called" **Trial and Error learning theory**". Thorndike conducted various experiment on chicken, rats and cats. According to him, learning takes (satisfactory response) place after a number trials.

John Watson: Watson founded behaviorism theories like classical conditioning and operant conditioning. Behavioral theories of learning stipulate that learning takes place when leaned behavior is evident/observable.

Ebbinghaus: He conducted experiments on memory and pioneered theory of forgetting. The theory suggests that the newly acquired information is forgotten with time but once understood and reviewed several times it can be retained for long time.

Give supplementary needed explanations for students to consolidate and extend their learning

e) Application activities

Suggested Answers to application activity 5.6

a) False

b) True

c) False

d) True

e) True

Lesson 5.7: Psychologists and learning theories: Skinner and Jean Piaget

a) Learning objective

Appreciate the role of psychologists' theories to learning

b) Teaching resources

Flip chart, markers, flash cards, books, computers, internet connection and handouts

c) Prerequisites/Revision/Introduction

The knowledge that students have on branches of psychology particularly on developmental and educational psychology will help them learn best the contribution of above theorists to learning.

d) Learning activities

Activity 5.7

- Form groups of four students
- Bring all groups in smart classroom and/or in the school library
- Invite students to make a research on contributions of Piaget and Skinner to learning
- Offer time for some groups to present their findings
- Give time to some students to ask questions for further clarifications
- Invite few students to make summary from presentations
- Provide supplements and constructive feedback.

Skinner: Skinner put forward the theory of learning called' **operant conditioning'.** In this theory, Skinner believed that people learn by striving for positive things and by avoiding negative things. His theory works particularly well for behavior modification which is a program meant change someone's behavior. The theory stipulates that reinforcement helps to increase a behavior while punishment helps to decrease a behavior.

Jean Piaget: Piaget pioneered a theory known as **'Theory of cognitive development'.** Piaget believed that children progress through a series of four key stages of cognitive development (sensory motor stage, preoperational stage, concrete stage and formal operational stage) whereby each stage is marked by shifts in how kids understand the world. He noticed that children are like little scientists and that they actively try to explore and make sense of the world around them.

Give additional information and needed explanations to help students consolidate and extend their learning.

e) Application activity

Suggested Answers to application activity 5.7

Skinner founded operant conditioning theory of learning in which he recommended educators of all levels to use reinforcement (rewards and punishment) in order to increase or decrease the likelihood of behavior (when desired behavior is rewarded it tends to be repeated but when undesired behavior is punished tends to not be repeated.

Piaget pioneered the theory of cognitive development in which he coined three stages of intellectual development namely sensorimotor stage, preoperational stage, concrete stage and formal operational stage and children should be taught according to these stages.

5.6. Additional information for teachers

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.

Ways of improving self-regulations

1. Model self-regulation: By telling students how you feel and what you will do about it. For example, I am feeling angry right now, so I am going to walk away and talk about this later or I am feeling upset now, so I will take a deep breath.

2. Design self-awareness lessons: Teach students how to name their feelings, identify body responses to stressors, and understand what happens when they feel anxious, angry, upset, bored or excited. Discuss and role play appropriate ways to manage and express their feelings

3. Explicitly teach students about self-regulation using circle time activities. Have students come up with ways to self-regulate. For example, breathing, walking away, …practice using the strategies in simulations and role plays.

4. Teach students to self-monitor: For student who has a lot of trouble self-regulating, give them opportunities to self-monitor by taking note of when they use the strategies thought.

5. Use positive time out: Teach students how to use a time out space when they feel upset or need time to calm down. Encourage students to use the space as a prevention strategy by helping them to notice when they are beginning to show signs of stress in their bodies.

6. Provide extra-instruction: For students who find it difficult to self-regulate, provide additional small group lessons focusing on the strategies above

7. Positively reinforce students who use the strategies by giving them specific feedback about their behavior.

8. Set goals with the student who has difficulty with self-regulation

9. Cue students when to use strategies. You may need to help the student develop self-awareness by cueing them in to when to use the strategies. Tom, I can see you are feeling upset. Perhaps you would like to get a drink of water. Demonstrate to the student how to name the feelings and offer suggestions for how to manage the feeling appropriately.

10. use mindfulness exercise as a class. The smiling mind has a free app or you can download it from YouTube. Prompt individual students to use the strategies when they need to focus on work or calm themselves.

5.7. End unit assessment

- Invite students to do an end unit assessment
- Collect their works and mark them
- Give students feedback as soon as possible

End unit assessment

1. True or False
   a) False
   b) False
   c) True
   d) True
   e) True

2. **Thorndike** put forward trial and error learning theory that stipulates that learning takes place by making many trials. This theory invites today's teachers to provide many activities for students to try find solutions. It emphasizes the principle that we learn by mistakes. This theory helps in the implantation of CBC where by students are given hints for them to construct their own knowledge.

   Socrates invented the technique of teaching in which there should be an open conversation between teacher and learner. Teachers should use questions and answers that lead to leaners discovery. He stressed that society is full of classes for learning. His method is in line with Rwandan teaching system which aims at developing critical thinking, communication, research and problem solving …skills in students.

3. Strategies that promote emotional self-regulation in children
   - To set goal
   - To self-monitor/self-assessment
   - To self-talk/self-instruction
   - To self-reinforce
   - To make choice about how to respond
   - To look for positive emotions

Strategies that promote initiative in students
   - To be role model in taking initiative
   - To incorporate group activities in the lessons
   - To tie lessons to the goal
   - To encourage independent learning……

5.8. Additional activities

Remedial activities

What do you think is the importance behavior self-regulation and creativity to students' learning?

Importance of behavioral self-self-regulation to learning.

Creativity helps students explore their inner world, develop greater self-awareness, and cope with stress.
   - It involves all of students' senses and creates new knowledge that didn't exist before.
   - Students of all ages need to learn by creating –
   - It helps students to synthesize information and bring joy and meaning into their educational experience.
   - Creativity enables students to generate new or innovative ideas
   - Creativity gives students freedom to explore their surroundings and learn from them
   - Creativity allows students to view and solve problems more openly and with innovation, it opens the students' mind.
   - Creativity promotes higher-order cognitive skills like problem solving, critical thinking, making connections between subjects

- Creativity motivates students to learn (Students are most motivated to learn when certain factors are present. They're able to tie their learning to their personal interests, they have a sense of autonomy and control over their task, and they feel competent in the work they're doing)

Importance of creativity to learning

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Consolidation activities

Examine possible strategies that teachers can use to promote students' memories.

- Get the learners to question any directions, explanations and instructions they do not understand.
- Examine the schedule of the morning and afternoon learning activities with the learner and have them to prepare the sequence
- Praise learners for any efforts they make
- Focus on the main aspects of the lesson while teaching
- Have learners to recall the important aspects of the activities in which they participated

- Ask questions after telling stories to students
- Have the learners engage in learning activities to enable short-term memory skills
- Get learners to practice repetition of information to increase short-term memory skills (eg: repeating names, telephone numbers, dates of activities…)

Extended activities

Discuss at least four examples of self-regulation skills

Examples of self- regulation skills

Self-awareness: having self-awareness means you can consciously recognize your thoughts, feelings and behaviours. It helps with self-control, so you are able to remain calm and rational in most situations and exercise discipline where needed.

Persistence: Continuing to remove forward toward your goals regardless of external or internal issues is a conscious choice. Those who possess this skill often work as hard as they can to stay aligned with their values and goals. Persistence can also keep you focused on the positive effect within your control.

Adaptability: The ability to adapt your responses and emotions according to different situations means you can cope with change. This self-regulation skill can also make you more flexible with different views and options. It also allows you to consider issues from multiple perspectives.

Optimism: Training your mind and emotions means being able to calm yourself when you are feeling stressed, anxious or sad. If you are a strong self-regulator, your likely consider challenges as opportunities to learn and improve your future efforts.

Unit 6 — TYPES OF BEHAVIORAL LEARNING

6.1. Key unit competence:

Compare and contrast types of behavioural learning

6.2. Prerequisite

Students will learn better types of behavioural learning if they have understanding on key concepts on psychology such as stimulus, learning, and behaviour, introduction to schools of psychology, importance of learning psychology, psychologist and learning theorists.

6.3. Cross-cutting issues to be addressed

During types of behavioural learning, peace and value education will be addressed in operant conditioning where it comes to reinforcement and punishment. In the conventional learning situation operant conditioning applies largely to issues of class and student management, as well as treating people in their settings rather than to learning content. For example, if a teacher is using reinforcement or punishment, that one is trying to increase or decrease behaviour.

Gender education

In each and every activity, teacher should make sure that there is an involvement of both girls and boys. For example, a teacher can create a reinforcement program in which the entire class or several large groups of children (girls and boys) must depend on each other's good behaviour to receive positive reinforcers and while establishing rules and routines, teacher takes gender responsive into consideration.

Inclusive education

Inclusive education as crosscutting issue will be addressed in this unit of types of behavioural learning. The teacher will address inclusive education by referring to how children may perceive, interpret, and mentally manipulate information they encounter in the environment.

6.4. Guidance on introductory activity

- Invite students to do research to the internet about types of behavioral learning and read different factsheets of schools of psychology
- Ask students to answer questions, after making a research.

Possible answers

Learning is a process that leads to a permanent change in behaviour, which occurs as a result of experience. And the behavioural learning theories assume that learning takes place as the result of responses to external events. For example, if a song I remember lovingly from my childhood gets repeatedly paired with a brand name, over time my warm memories about the tune will influence me to be interested to the advertised product.

- Yes, like "*Rwanda Foam matelas advertisement*"
- Due to the way an individual gets conditioned to the advertisement because of the favorite song, when the tune is change sometimes you don't care about.

6.5. List of lessons

	Lesson title/sub heading	Learning objectives	Number of periods
1	**Classical conditioning:** Conditioned and unconditioned stimulus	Compare and contrast conditioned and unconditioned stimulus	4
2	**Operant conditioning:** Positive reinforcement and positive punishment	Differentiate positive reinforcement from positive punishment	4
3	**Operant conditioning:** Negative reinforcement and negative punishment	Distinguish negative reinforcement and negative punishment	4
4	**Operant conditioning:** Negative punishment	Distinguish between negative reinforcement and negative punishment	
5	**Observational learning:** Attention Retention Reproduction Motivation	Discuss the steps in the modelling process	4
6	End unit assessment		2
	Total number of periods		18

Lesson 6.1: Classical conditioning: Conditioned and unconditioned stimulus

a) Learning objective

Compare and contrast conditioned and unconditioned stimulus

b) Teaching resources

Handouts and videos about different behavioural learning theories, fact sheets about different theorists (refer to Help a Child resource file), internet, flip charts, Flash cards, and wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better classical conditioning: conditioned and unconditioned stimulus, since they have the understanding on key concepts related to learning psychology, such as stimulus, learning, response, perception and sensation. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 6.1

- Make a conversation on students' daily routines like having lunch at 12 o'clock and ask them what will happen if one-day lunch will not be ready at 12:00.
- Use images, videos, and chart to support student teachers understanding classical conditioning theory

Suggested Answers to activity 6.1

- When we are aware of the time to go for lunch, sometimes lunch hours are not studied well, and if we get to dining room and we find that the food has changed, there are certain behaviors that we manifest (happiness, anger, excitement….) and when the time is about; we get aware, we may feel hungry or start thinking about the food.
- Proceed the lesson with enough examples that illustrate classical conditioning

– Continue with more explanations enable students to compare and contrast conditioned and unconditioned stimulus

e) Application activities

Suggested Answers to application activity 6.1

1. Please find it in the content of student book.

2. d: conditioned stimulus while it may have previously been a neutral stimulus, by repeatedly pairing "pancake" with tickling. Alice has caused her sister to acquire an association between the word and being tickled.

3. In stimulus generalization, an organism responds to new stimuli that are similar to the original conditioned stimulus. For example, a dog barks when the doorbell rings. He then barks when the oven timer dings because it sounds very similar to the doorbell. On the other hand, stimulus discrimination occurs when an organism learns a response to a specific stimulus, but does not respond the same way to new stimuli that are similar. In this case, the dog would bark when he hears the doorbell, but he would not bark when he hears the oven timer ding because they sound different; the dog is able to distinguish between the two sounds.

Lesson 6.2: Operant conditioning: Positive reinforcement and positive punishment

a) Learning objective

Differentiate positive reinforcement from positive punishment

b) Teaching resources

Handouts and videos about operant conditioning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better behavioural learning theories: operant conditioning theory, since they have the understanding on classical conditioning, key concepts related to educational psychology such as stimulus, learning, response, perception and sensation. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 6.2

- Use a conversation help students to exchange ideas on what they do in the morning and what will happen if they will not do it properly
- Use images, videos, and chart to support student teachers understanding operant conditioning theory.

Suggested Answers to activity 6.2

We expect to get punishment from our Parents and the next day we can't repeat the mistake again

– Provide more information related to positive reinforcement from positive punishment

e) Application activities

Suggested Answers to application activity 6.2

1. Losing her license

2. Because the punishment was inconsistently applied (she drove at night many times without facing punishment) and because the punishment was not applied immediately (her driving privileges were not revoked until a week after she was caught), the negative punishment was not effective at curtailing her behavior.

3. In negative reinforcement you are taking away an undesirable stimulus in order to increase the frequency of a certain behavior (e.g., buckling your seat belt stops the annoying beeping sound in your car and increases the likelihood that you will wear your seatbelt). Punishment is designed to reduce a behavior (e.g., you scold your child for running into the street in order to decrease the unsafe behavior.)

Lesson 6.3: Operant conditioning: Negative reinforcement and negative punishment

a) Learning objective

Distinguish between negative reinforcement and negative punishment

b) Teaching resources

Handouts and videos about operant conditioning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better behavioural learning theories: operant conditioning theory, since they have the understanding on classical conditioning, key concepts related to educational psychology such as stimulus, learning, response, perception and sensation. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 6.3

- Use a conversation help students to exchange ideas on the scenario by answering to questions related to the identification of negative and positive reinforcers
- Use images, videos, and chart to support student understanding operant conditioning theory.

Suggested Answers to activity 6.3

Being late for work and having to eat vegetables are all negative outcomes that were avoided by performing a specific behavior.

Continue with more explanation related to negative reinforcement and negative punishment

e) Application activities

Suggested Answers to application activity 6.3

1. Allowing a child to play on their tablet if they finish their homework is an example of positive reinforcement. And Negative reinforcement would be a child finishing their homework to avoid having their tablet taken away.

2. Negative reinforcement: in negative reinforcement a behaviour is increased because doing it decreases an unpleasant or aversive stimulus. For Sarah, fiddling with the strap is reinforced because it removes the annoying noise her backpack makes, encouraging her to repeat this pulling behaviour

Lesson 6.4: Operant conditioning: negative punishment

a) Learning objective

Distinguish between negative reinforcement and negative punishment

b) Teaching resources

Handouts and videos about operant conditioning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better operant conditioning: negative punishment, since they have the understanding on operant conditioning: positive and negative reinforcement. The knowledge about different theorists who contributed in classical and operant conditioning will help them to understand this lesson.

d) Learning activities

Activity 6.4

- Invite students to read individually the scenario and work in pairs to share with the classmate.
- Have some pairs to make presentations

Suggested Answers to activity 6.4

- Losing access to a toy,
- Being grounded, and losing reward tokens are all examples of negative punishment.
- Because in each case, something good is being taken away as a result of the individual's undesirable behaviour)

Provide more knowledge and understanding on negative reinforcement and negative punishment

e) Application activities 6.4

1. The correct answer to this question is B (Positive Reinforcement)

2. 2.
   - Negative reinforcement (A) would involve taking something away to reinforce the desired behaviour. So, if the question stated that the parents would remove her curfew if she maintained a 4.0 grade point average (the desired behavior), that would be negative reinforcement
   - This is positive reinforcement **(B)** because the parents are adding something (allowing her to go out with friends on the weekends) if she maintains a 4.0 grade point average (the desired behaviour).
   - Negative punishment **(C)** would involve removing something to decrease the frequency of an undesired behaviour. So, if the question stated that anytime the daughter gets a grade below an A on a test or assignment, she is not allowed to go out with friends for a week, this would be negative punishment. It is taking something pleasant away (going out with friends) in order to decrease the frequency of the undesired behaviour (getting below an A).
   - Positive punishment **(D)** would involve adding something undesirable in order to decrease the frequency of an undesired behaviour. So, if the question stated that anytime the daughter gets a grade below an A on a test or assignment, she must do an extra chore, that would be positive punishment. It is adding something unpleasant (doing a chore) in order to decrease the frequency of the undesired behaviour (getting below an A).

Lesson 6.5: Observational learning

a) Learning objective

Discuss the steps in the modelling process

b) Teaching resources

Handouts and videos about observational learning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better observational learning, since they have the understanding on classical and operant conditioning. The knowledge about different theorists who contributed in behavioural learning will help them to understand this lesson.

d) Learning activities

Activity 6.5

- Invite students to read the question in their pair and work on it to share with the classmate.
- Have some pairs to make presentations

Suggested Answers to activity 6.5

b) Observational learning because Tom has learned this behavior simply by seeing others perform it. Seeing these heroes (who are high-status and attractive) model this behavior has also likely played a role in his motivation to reproduce it.

Continue with more information on modelling process

e) Application activities

Suggested Answers to application activity 6.5

Clara is more likely to drink at the party because she has observed her parents drinking regularly.

Children tend to follow what a parent does rather than what they say.

6.6. Additional Information for teachers

Assumptions of the Behavioural Perspective

All behavior is learned from the environment: Behaviorism emphasizes the role of environmental factors in influencing behavior, to the near exclusion of innate or inherited factors. This amounts essentially to a focus on learning. We learn new behavior through classical or operant conditioning (collectively known as 'learning theory'). Therefore, when born our mind is 'tabula rasa' (a blank slate).

Psychology should be seen as a science: Theories need to be supported by empirical data obtained through careful and controlled observation and measurement of behavior. Watson (1913) stated that: 'Psychology as a behaviorist views it is a purely objective experimental branch of natural science. Its theoretical goal is … prediction and control.' (p. 158). The components of a theory should be as simple as possible. Behaviorists propose the use of operational definitions (defining variables in terms of observable, measurable events).

Behaviorism is primarily concerned with observable behavior, as opposed to internal events like thinking and emotion: The starting point for many behaviorists is a rejection of the introspection (the attempts to "get inside people's heads") of the majority of mainstream psychology. While behaviourists often accept the existence of cognitions and emotions, they prefer not to study them as only observable (i.e., external) behaviour can be objectively and scientifically measured. Although theorists of this perspective accept that people have "minds", they argue that it is never possible to objectively observe people's thoughts, motives and meanings - let alone their unconscious yearnings and desires. Therefore, internal events, such as thinking should be explained through behavioural terms (or eliminated altogether).

There is little difference between the learning that takes place in humans and that in other animals: There's no fundamental (qualitative) distinction between human and animal behavior. Therefore, research can be carried out on animals as well as humans (i.e., **comparative psychology**). Consequently, rats and pigeons became the primary source of data for behaviorists, as their environments could be easily controlled.

Behavior is the result of stimulus-response: All behavior, no matter how complex, can be reduced to a simple stimulus-response association). Watson described the purpose of psychology as: 'To predict, given the stimulus, what reaction will take place; or, given the reaction, state what the situation or stimulus is that has caused the reaction.' (1930, p. 11).

Understanding how people learn can help empower and enable people to make more meaningful connections and experiences with their friends and family in their everyday interactions. In the workplace, behavioral learning can often improve interactions with colleagues and customers and help people advance in their careers. They can often predict and even avoid negative outcomes by learning how other people will act in certain situations. This can be a useful tool for them throughout their careers.

Behavioral changes and learning processes are important components that improve relationships and interactions among members of a society. People must practice the provisions of theories and models that facilitate the achievement of desired behaviors in order to make effective behavioral changes. While there are several similarities and differences between the theories and models, there are several factors that facilitate their effective application. To successfully apply theories and models, people must develop the ability to learn through attentiveness and the ability to retain and apply the acquired information. Individuals should organize the information so that structured actions about the desired behavioral change are produced, indicating a successful learning process.

6.7. End unit assessment

- Invite students to do an end unit assessment
- Collect their works and mark them
- Give students feedback as soon as possible

End unit assessment

The answer is operant conditioning theory because this theory refers to the learning process where learning takes place through rewarding a certain behavior or withholding rewards for undesirable behaviour. Skinner emphasized that a person or animal tends to "repeat" behaviour which has been 'rewarded' (positively reinforced), or tends to 'stop' which has been 'punished' (negatively reinforced).

See in the content.

6.8. Additional activities

Remedial activities

Question 1: Construct a table showing in these examples which are for positive reinforcement and negative reinforcement.

   a) A parent gives their child an extra allowance for doing the dishes.
   b) Workers won't get yelled at when they arrive at work on time
   c) A manager offers bonuses to their workers for finishing the project on time brushing the teeth prevents tooth decay

d) A teacher gives students gold stars for raising their hands before they speak

e) A teenager cleans up his room so that his phone won't be taken away

f) You receive applause from the audience after playing the piano in a recital.

g) Putting away toys neatly and the parent won't throw them away

h) Young children pat a dog on the head when it sits quietly in front of them

i) A child doesn't have to clean the table after the meal if they eat their vegetable

j) Gamblers win a monetary reward for playing at the slot machines continuously

k) Taking out the garbage removes the rotten smell in the kitchen.

Answer to remedial activities

Answer to Question 1

Positive reinforcement	Negative reinforcement.
A parent gives their child an extra allowance (reinforcer) for doing the dishes (desired behavior.)	A child doesn't have to clean the table (unpleasant event) after the meal if they eat their vegetable (desired behavior.)
A manager offers bonuses (reinforcer) to their workers for finishing the project on time (desired behavior.)	Taking out the garbage (desired behavior) removes the rotten smell (unpleasant stimulus) in the kitchen.
A teacher gives students gold stars (reinforcer) for raising their hands before they speak (good behavior.)	Brushing the teeth (desired behavior) prevents tooth decay (unpleasant event.)
You receive applause from the audience (reinforcer) after playing the piano (wanted behavior) in a recital.	Workers won't get yelled at (unpleasant stimulus) when they arrive at work on time (wanted behavior.)
Young children pat a dog on the head (reinforcer) when it sits quietly in front of them (desirable behavior.)	A teenager cleans up his room (desirable behavior) so that his phone won't be taken away (unpleasant event.)
Gamblers win a monetary reward (reinforcer) for playing at the slot machines continuously (encouraged behavior.)	Putting away toys neatly (wanted behavior) and the parent won't throw them away (unpleasant event.)

Question 2:

Among these examples, which ones are for positive punishment and negative punishment?

1. A parent takes away their child's phone for watching too many videos
2. A parent assigns the child extra chores for playing too many video games.
3. The police revoke the driver's license for reckless driving
4. The teacher gives a student extra homework for making noise in class
5. A teenager cannot go to the mall for missing curfew
6. Parents spank children for skipping classes
7. Thieves lose their freedom for stealing
8. A child is scolded for ignoring homework
9. A parent gives a child a time-out for throwing tantrums
10. A boy loses his tablet time for bullying others in school
11. The police give a driver a ticket for speeding
12. Students lose recess time for making too much noise.

Answer to Questions 2:

Positive punishment	Negative punishment
A parent assigns the child extra chores (unpleasant consequence) for playing too many video games (bad behavior.)	A parent takes away their child's phone (pleasant stimulus) for watching too many videos (bad behavior.)
The teacher gives a student extra homework (aversive stimulus) for making noise in class (undesired behavior.)	The police revoke the driver's license (pleasant stimulus) for reckless driving (unwanted behavior.)
Parents spank children (unpleasant stimulus) for skipping classes (unwanted behavior.)	Students lose recess time (pleasant stimulus) for making too much noise (undesired behavior.)
A child is scolded (unpleasant event) for ignoring homework (undesirable behavior.)	A teenager cannot go to the mall (pleasant stimulus) for missing curfew (bad behavior.)
A parent gives a child a time-out (unpleasant consequence) for throwing tantrums (unwanted behavior.)	A boy loses his tablet time (pleasant stimulus) for bullying others in school (undesirable behavior.)
The police gives a driver a ticket (unpleasant stimulus) for speeding (unwanted behavior.)	Thieves lose their freedom (pleasant stimulus) for stealing (bad behavior.)

Question 1: Can you think of an example in your life of how classical conditioning has produced a positive emotional response, such as happiness or excitement? How about a negative emotional response, such as fear, anxiety, or anger?

Answer 1: For example, whenever you come home wearing a tennis cap, you take your child to the park to play. So, whenever your child sees you come home with a tennis cap, he is excited because he has associated your tennis cap with a trip to the park. This learning by association is classical conditioning.

Question 1: Compare and contrast classical and operant conditioning. How are they alike? How do they differ?

Answer: Both classical and operant conditioning involve learning by association. In classical conditioning, responses are involuntary and automatic; however, responses are voluntary and learned in operant conditioning. In classical conditioning, the event that drives the behaviour (the stimulus) comes before the behaviour; in operant conditioning, the event that drives the behaviour (the consequence) comes after the behaviour. Also, whereas classical conditioning involves an organism forming an association between an involuntary (reflexive) response and a stimulus, operant conditioning involves an organism forming an association between a voluntary behaviour and a consequence.

Question 2: Explain how the processes of stimulus generalization and stimulus discrimination are considered opposites.

Answer: In stimulus generalization, an organism responds to new stimuli that are similar to the original conditioned stimulus. For example, a dog barks when the doorbell rings. He then barks when the oven timer dings because it sounds very similar to the doorbell. On the other hand, stimulus discrimination occurs when an organism learns a response to a specific stimulus, but does not respond the same way to new stimuli that are similar. In this case, the dog would bark when he hears the doorbell, but he would not bark when he hears the oven timer ding because they sound different; the dog is able to distinguish between the two sounds.

Question 3: What is the difference between negative reinforcement and punishment?

Answer:

In negative reinforcement you are taking away an undesirable stimulus in order to increase the frequency of a certain behaviour (e.g., buckling your seat belt stops the annoying beeping sound in your car and increases the likelihood that you will wear your seatbelt). Punishment is designed to reduce a behaviour (e.g., you scold your child for running into the street in order to decrease the unsafe behaviour.)

Unit 7

MEMORY

7.1. Key unit competence:

Develop a basic understanding of the nature and characteristics of memory processes and systems.

7.2. Prerequisite

To learn better and understand this unit students will be helped by the knowledge and skills acquired from other units they have covered in senior four which have relationship with this one, those units are the following:

Unit 4: Introduction to human development where they have learned about brain development.

Unit 5: Theories of human development where they have studied many theories but the one which relate to this unit is cognitive development theory.

The above content from these units will enable students to learn and understand this unit of memory easily.

7.3. Cross-cutting issues to be addressed

Gender education

The teacher should bear in mind that all students (girls and boys) have equal opportunities and rights to study. When forming group activities, assigning tasks and responsibilities, asking questions, and giving feedback teacher should make sure that both girls and boys are having equal participation.

Financial education

Teacher and students should know that resources and materials used in teaching and learning activities must not be mismanaged, they should be kept for future use or for improvisation of the teacher. They will put in mind that misusing materials is wasting money because many of them are bought.

Inclusive education

To make teaching and learning process inclusive, the teacher must understand individual differences and consider them when organizing and setting teaching and learning activities and when arranging seating arrangement. Teacher will use teaching approaches, methods and techniques that cater for students' diversities and needs and encourage them to maximize their full potential in classroom. Especially student's special educational needs should be catered for to make sure that they are always involved in all classroom activities.

Peace and value education

Through teaching and learning, the culture of peace and values should be promoted. When students are collaborating in groups, they learn to share resources and ideas in respectful manner. They also learn to solve their problems in peaceful manner.

7.4. Guidance on introductory activity

This introductory activity intends to arouse students' attention and interest, it is also used to motivate students and help them to have an idea about memory. They will use internet and other books from the library to answer questions asked about memory. This can be done using think pair share technique or discussion in small groups in order to encourage team work and collaboration in the classroom as students will share about research they have done using different books.

Introductory activity

Suggested answer to introductory activity

Memory refers to the psychological processes of acquiring, storing, retaining, and later retrieving information (the process of taking in information from the world around us, processing it, storing it and later recalling that information, sometimes many years later)

Sensory memory

- Short term memory/working memory
- Long term memory (For explanation refer to student book on point 7.2)

3. Refer to student book on point 7.1 which is about information processing model

4. Refer to student book on point 7.5, 7.6, 7.7 about theories that influence forgetting and on point 7.8 about strategies for enhancing memory.

7.5. List of lessons/sub-heading

	Lesson title/sub heading	Learning objectives	Number of periods
1	**Theories of memory:** Information processing memory	Explain the information processing model of memory	4
2	Levels of processing memory	Describe the levels of processing memory	3
3	**Types of memory:** Implicit memory	Describe implicit type of memory	3
4	Explicit memory	Summarize explicit type of memory	4
5	**Forgetting:** The interference theory The decay theory of forgetting	Analyze the interference and decay theory of forgetting	4
6	The retrieval failure theory The cue-dependent theory of forgetting	Discuss about retrieval failure and cue dependent theory	4
7	Repression/motivation Displacement from short term memory	Distinguish between repression theory and displacement from short term memory	4
8	Strategies for enhancing memory	Apply different strategies for enhancing memory	4
9	End unit assessment		2
	Total number of periods		32

Lesson 7.1: Information processing memory

a) Learning objective:

Explain the information processing model of memory

b) Teaching resources

Flashcards, flip charts, markers, papers, manila papers, books and internet connectivity if available.

c) Prerequisites/Revision/Introduction

Students have studied brain and human development where they explored brain basics and functions, brain development and key messages for parents and care givers about their role in children's brain development. They have also learned about cognitive development theory where they focused on stages of cognitive development.

d) Learning activities

Activity 7.1

- Take the students in the room with internet availability if possible
- Distribute books in relation to memory and allow students to make research about how the information is processed in memory
- They can work in pairs or in small groups to collaborate and share ideas
- Each pair/small group should have books to use in research
- Each pair/small group is given a marker and flip chart to record the findings
- Allow each pair/small group to present the findings and hang them on a wall.

Suggested Answers to activity 7.1

Information is filtered from our sensory memory into our short-term or working memory. From there, we process the information further. Some of the information we hold in our short-term memory is discarded or filtered away once again, and a portion of it is encoded or stored in our long-term memory. This means that the process begins with receiving input, also called stimulus, from the environment using various senses. The input is then described and stored in the memory, which is retrieved when needed.

Continue and provide more content related to information processing model of memory

e) Application activity 7.1

Suggested Answers to application activity 7.1

1. Complete using appropriate terms
a) The psychological terms for taking information, retaining it and later getting it back out are **encoding, storage and retrieval**
b) Someone who asks you to write down as many objects as you can remember having seen in few minutes earlier is testing your **short term memory or working memory**

c) Successful encoding of information requires **attention, rehearsal** and **deep processing**

d) **Visual, acoustic and semantic** are three main ways in which information can be encoded.

2. *Nature of memory store consist of where the information is stored, how long the memory lasts for (duration), how much can be stored at any time (capacity) and what kind of information is held.*

3. Encoding failure, absence of retrieval cues, the context, our physiological state or mood, the order of presentation and our ability to rehearse the information, and competing information in memory.

Lesson 7.2: Levels of processing memory

a) Learning objective:

Describe the levels of processing memory

b) Teaching resources:

Flashcards, flip chart or manila paper, markers, papers, books and internet connectivity if available.

c) Prerequisites/Revision/Introduction

Students have studied brain development where they focused on brain basics and functions and recommendation for parents and care givers on how to support their children's brain development. They have also learned about stages of cognitive development in cognitive development theory and information processing model in the previous lesson.

d) Learning activities

Activity 7.2

- Take the students in the room with internet availability if possible
- Distribute books to them for making research
- Encourage them to make research and answer to questions asked about information processing model.
- Students can work in pairs or in small groups to collaborate and share ideas
- Each pair/small group should have books to use in research
- Each pair/small group is given a marker and flash card to write findings
- Invite each group/pair to hand their answers on a wall

- Allow students to make gallery work in their respective groups to see what others did.
- While making a gallery work they are allowed to put additional information on other's work

Suggested Answers to activity 7.2

Working memory and short-term memory allow you to store and use temporary information this means that it holds relatively small amounts of information for brief periods of time, usually 30 seconds or less, while long-term holds your lifelong memories this means that this memory system permits us to remember events that happened many years ago, yesterday, last year, and so on.

The purpose of sensory memory is to give the brain some time to process the incoming sensations, and to allow us to see the world as an unbroken stream of events rather than as individual pieces. 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.

Encoding. We get information into our brains through a process called encoding, which is the input of information into the memory system. Once we receive sensory information from the environment, our brains label or code it.

Provide more information and more explantion so as to enable student describe the levels of processing memory.

e) Application activity 7.2

Suggested Answers to application activity 7.2

1. Complete using appropriate word
   a) Iconic memory is sensory memory for **visual** information.
   b) Echoic memory is the sensory memory for **sound**.
   c) haptic memory is sensory memory which retains data acquired through **touch**.

2. Information is passed from the sensory memory into short-term memory via the process of attention (the cognitive process of selectively concentrating on one aspect of the environment while ignoring other things), which effectively filters the stimuli to only those which are of interest at any given time. after that the information moves to short-term memory, and eventually moves to long-term memory. Maintenance rehearsal and chunking are used to keep information in short-term memory. The capacity of long-term memory is large, and there is no known limit to what we can remember.

3. Information in long-term memory is most likely stored in network-type structures called schemas. Schemas are an efficient way to organize interrelated concepts in a meaningful way. When we learn or experience something new and connect it with previously stored information, the process is known as assimilation.

4. Main Characteristics of the Long-term Memory
   - Encoding, which is the ability to convert information into a knowledge structure?
   - Storage, which is the ability to accumulate chunks of information.
   - Retrieval, which is the ability to recall things we already know

Lesson 7.3: Implicit memory

a) Learning objective:

Describe implicit type of memory

b) Teaching resources

Flashcards, flip chart or manila paper, markers, pens, books for making research and internet connectivity if available.

c) Prerequisites/Revision/Introduction

This lesson is not separated from the previous one. It builds a foundation from it. The more important and core knowledge that is much relevant to this lesson is that students learnt some lessons which relate to this one like:
   - Brain and human development in senior four
   - Cognitive development in senior four

They learnt also information processing model and levels of processing model in this unit in the previous lessons. This content will help them to have a starting point that will make them to learn this lesson with high motivation and easily understand it.

d) Learning activities

Activity 7.3

- Take the students in the room with internet availability if possible
- Distribute books for making research if they are available
- Invite them to make research about implicit type of memory
- This activity will be done in pairs or in small groups to collaborate and share ideas.
- Each pair/small group should have books to use in research and flash card/manila paper or flip chart to write their findings
- Allow them to present their findings and hang them on the wall

Suggested Answers to activity 7.3

1. Implicit memory

2. Implicit memory encompasses all unconscious memories, as well as certain abilities or skills. There are four types of implicit memory: procedural, associative, non-associative, and priming

3. Implicit memory, often referred to as non-declarative memory

4. Cerebellum, basal ganglia and motor cortex are involved in implicit memory, but of course, it is supervised by the cerebral cortex.

Provide more explanation so that students are able to describe implicit type of memory

e) Application activity 7.3

Suggested Answers to application activity 7.3

1. **Implicit memory** is retention of learned skills or classically conditioned associations without conscious awareness.it is also called non-declarative memory.

2. Some examples of implicit memories are like:
   - Recalling the words to a song when someone sings the first few words
   - Riding a bike
   - Performing simple cooking tasks, such as boiling water
   - Driving a car

3. **Procedural memory** is a category of long-term memory that involves recollections to which a person has no direct conscious awareness. It can only be demonstrated indirectly through some type of motor action, for example, how to swim or ride a bicycle. Procedural memory is a part of the implicit long-term mem*ory responsible for knowing how to do things.*

Priming memory is the implicit memory effect in which exposure to a stimulus influences response to a later stimulus. It is a technique in psychology used to train a person's memory both in positive and negative ways.

Classical conditioning (association and non-association) involves using implicit, automatic memories to create an association with a previously neutral stimulus. Once this association is formed, people will engage in a conditioned response when the stimulus is presented

Lesson 7.4: Explicit memory

a) Learning objective

Summarize and explicit type of memory

b) Teaching resources

Flashcards, flip chart or manila paper, markers, books and internet connectivity if available.

c) Prerequisites/Revision/Introduction

This lesson is not separated from previous one. It builds a foundation from it. The more important and core knowledge that is much relevant to this lesson is about brain development which they have seen in senior four (unit four) and cognitive development theory which they have seen in senior four (unit five). This lesson again is very related to the previous lessons of this unit which are:

- Information processing model
- Levels of processing model
- Implicit memory

This content will help students to have a good starting point and will help them to easily understand this lesson.

d) Learning activities

Activity 7.4

- Take the students in the room with internet availability if possible
- Distribute books for making research about explicit type of memory
- Invite them to search and answer to questions asked either in pairs or in small groups.
- Each pair/small group should have books to use in research (if possible) and flash card/ manila paper or flipchart to write their findings
- Allow them to present their findings in plenary.

Suggested Answers to activity 7.4

1. It is explicit memory

2. Explicit memory can be thought of as intentional retrieval.it involves the wilful process of thinking back in time for the purpose of retrieving previously encountered events as opposed to implicit memory.

3. Declarative memory

4. Episodic memory and semantic memory.

Provide more explanation so that students are able to describe explicit type of memory.

e) Application activity 7.4

Suggested Answers to application activity 7.4

1. **Episodic memory** refers to the ability to recollect everyday experience. More specifically, episodic memory is the conscious recollection of personal events, along with the specific time and place (context) that they occurred. Episodic material includes autobiographical information, such as the birth of a child or graduation from high school, and includes personal information, such as a meal from the previous day or a recent golf game. These are memories that relate to an individual's own unique experience and include the details of "when and where" an event occurred.

Semantic memory is an individual's knowledge about the world and includes memory of the meanings of words (vocabulary), facts, and concepts and, contrary to episodic memory, is not context-dependent. Knowledge is remembered regardless of when and where it was learned, such as word definitions or knowing the years when WWII occurred.

2. Psychologists conceptualize memory in terms of types, in terms of stages, and in terms of processes. In this section we will consider the two types of memory, explicit memory and implicit memory, and then the three major memory stages: sensory, short-term, and long-term (Atkinson & Shiffrin, 1968). Then we will consider three processes that are encoding, storage, and retrieval.

3. The cerebellum and basal ganglia are important for implicit memory processing and the hippocampus and frontal lobes are key to explicit memory formation.

Lesson 7.5: Interference and decay theories of forgetting

a) Learning objective

Analyse the interference and decay theory of forgetting

b) Teaching resources

Flashcards/flip chart or mania paper, markers, books and internet connectivity if available.

c) Prerequisites/Revision/Introduction

Important and core knowledge that is much relevant to this lesson is about information processing model, levels of information processing, implicit and explicit types of memory which they have seen previously in this unit.in addition to this content of senior five, students have also studied about brain basics and functions in unit four of senior four and cognitive development theory in unit five of senior four.

The content said above will help them to have a good starting point that will make them learning this lesson with high motivation and easily understand it.

d)Learning activities

Activity 7.5

- Ask students to open their book and read silently the activity 7.5
- Call two students (male and female) to read loudly the activity.

- Give flip chart/manila paper and marker to small groups of 6 or 7 students.
- Ask them to discuss and provide answers of the two questions asked.
- Have and facilitate each group's discussion and presentation.

Suggested Answers to activity 7.5

1. Interference theory of forgetting and decay theory of forgetting

2. Interference theory is when our existing memories influence our new learning in a backward way or a forward way and then one of them is forgotten because it has been interfered with another this means that

Give more explantaionAnalyse the interference and decay theory of forgetting

e) Application activity 7.5

Suggested Answers to application activity 7.5

3. **Memory trace** is lasting physical change in the brain as a memory forms

4. You will experience less **retroactive interference** if you learn new material in the hour before sleep than you will if you learn it before turning to another subject.

5. Decay theory of forgetting suggests that short term memory can only hold information for between **15 and 30 seconds** unless it is rehearsed.

6. **Proactive interference** is the forward-acting disruptive effect of newer learning on the recall of old information. **Retroactive interference** is the backward acting disruptive effect of newer learning on the recall of old information.

7. **Trace decay theory of forgetting:** 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.

8. One way to prevent the decay of information from short-term memory is to use working memory to rehearse it

Lesson 7.6: Retrieval failure and cue-dependent theories of forgetting

a) Learning objective

Discuss about retrieval failure and cue dependent theory

b) Teaching resources

Flash cards/manila papers or flip chart, handouts with descriptions of retrieval failure and cue dependent theories of forgetting, markers…

c) Prerequisites/Revision/Introduction

Students will learn better retrieval failure and cue dependent theories of forgetting since they have an understanding on:

- Brain basics and functions which they have studied in senior four (unit four)
- Cognitive development theory (senior four, unit five)
- Information processing model, levels of information processing, implicit memory, explicit memory, interference and decay theories of forgetting which they have seen previously in this unit.

d) Learning activities

Activity 7.6

- Invite students to read individually the paragraph which is on activity 7.6 in the student book
- Invite them to work in pairs or in small groups to collaborate and share ideas about questions asked in that paragraph using handout received.
- Have some pairs/groups make presentations of their findings in plenary.
- Invite them to ask questions and supplement for better understanding.
- Give supplementary needed explanation
- Ask more questions to students to fix their understanding.

Suggested Answers to activity 7.6

1. Retrieval failure or cue dependent theory of forgetting
2. That theory of forgetting has been developed by Canadian psychologist and cognitive neuroscientist Endel Tulving in 1974
3. There are two main reasons for failure in memory retrieval:
   - Encoding failure prevents us from remembering information because it never made it into long-term memory in the first place.
   - The information may be stored in long-term memory, but we can't access it because we lack retrieval cues.

– Provide deep explanation related to retrieval failure and cue dependent theory.

e) Application activities

> **Suggested Answers to application activity 7.6**
>
> - Retrieval cues are aspects of an individual's physical and cognitive environment which aid the recall process; they can be explicitly provided at recall, self-generated, or encountered more incidentally through the retrieval context.
>
> **Examples:** Retrieval cues can be present in the context, such as sounds, smells, and sights. Retrieval cues can also be internal to the person retrieving the memory, such as physical states or feelings
>
> - Retrieval failure is an explanation for forgetting from long-term memory. It refers to difficulties in recall that are due to the absence of correct retrieval cues or triggers. This is a theory that explains why we fail to recall from long term memory. The suggestion is that internal (such as mood state) and external (such as temperature and smell) cues can help facilitate recall of a long term memory are not found.
> - Context-dependent forgetting can occur when the environment during recall is different from the environment you were in when you were learning. State-dependent forgetting occurs when your mood or physiological state during recall is different from the mood you were in when you were learning.

Lesson 7.7: Repression/motivation and displacement from short term memory theories of forgetting

a) Learning objective

Distinguish between repression theory and displacement from short term memory theories of forgetting

b) Teaching resources

Flash cards, handouts with descriptions of repression and displacement from short term memory theories of forgetting

c) Prerequisites/Revision/Introduction

Students will learn better repression/motivation and displacement from short term memory theories of forgetting since they have an understanding on:

- Brain basics and functions which they have studied in senior four (unit four)
- Cognitive development theory (senior four, unit five)
- Information processing model, levels of information processing, implicit memory, explicit memory, interference, decay, retrieval failure and cue-dependent theories of forgetting which they have seen previously in this unit.

d) Learning activities

Activity 7.7

- Invite students to make pair or small groups and answer to questions asked on learning activity 7.7
- Remind them to refer to handout received to be able to answer to given questions
- Have some pairs/groups make presentations of their findings/answers.
- Ask students some other questions related to the learning activity after presentation to deepen their understanding.
- Give a supplementary needed explanation on covered theories of forgetting

Suggested Answers to activity 7.7

1.
a) displacement theory
b) old information
c) new received information

2.
a) repression theory
b) Sigmund Freud in his theory of psychoanalysis
c) traumatic memories, painful memories, shameful memories…

Continue with other content related to repression theory and displacement from short term memory theories of forgetting.

e) Application activity 7.7

Suggested Answers to application activity 7.7

1. Short term memory has a limited capacity of storage.

2. Because of its limited capacity as suggested by Miller to be 7+/- 2 items, short term memory can only hold small amounts of information. When short term memory is 'full', new information displaces or 'pushes out' old information and takes its place.

3. During repression there is exclusion of distressing memories, thoughts, or feelings from the conscious mind. This means that during repression unwanted mental contents are pushed into the unconscious mind.

4. **Encoding failure:** unattended information never entered our memory system.

   Storage decay: information fades from our memory

   Retrieval failure: we cannot access stored information accurately sometimes due to interference or motivated forgetting.

Lesson 7.8: Strategies for enhancing memory

a) Learning objective

Apply different strategies for enhancing memory

b) Teaching resources

Student book, chalk board, chalks, flip charts, markers, scotches…

c) Prerequisites/Revision/Introduction (guidance on how to start the lesson)

Lesson 5,6 and 7 (Theories of forgetting) will serve as good prerequisite. Understanding different theories of forgetting (interference, decay, retrieval failure, cue dependent, repression/motivation, and displacement from short term memory) can easily help to understand and apply different strategies for enhancing memory.

d) Learning activity

Activity 7.8

- Ask students to open their book and read silently the question on learning activity 7.8
- Call two students (male and female) to read loudly the question.
- Give flip chart and marker to small groups of 6 or 7 students
- Ask them to discuss and provide techniques to improve memory, enhance recall and increase retention of information.
- Have and facilitate each group's discussion and presentation.

Some of the techniques that can help people improve memory, enhance recall, and increase retention of information are the following:

- Focus your attention.
- Avoid cramming.
- Structure and organize.
- Utilize mnemonic strategies.
- Elaborate and rehearse.
- Visualize concepts.
- Relate new information to things you already know.
- Read out loud.

– Provide more information for deepening

e) Application activities 7. 8

Suggested Answers to application activity 7.8

1.
a) Chunking

b) Organise your learning material

c) Have the right study environment

d) Space out your work

e) Repetition

f) Storytelling

2. Cramming is ineffective because it can lead to information overload and it doesn't allow your brain to put information into long term memory and this leads to forgetting.

3. Meaningful information is easier to remember and using the word's meaning will help "transfer" memories from the short-term to the long-term. When trying to memorize information, it is better to relate it to something meaningful rather than repeat it again and again to make it stick and this leads to better memory.

4. Distributed practice and repeated self-testing will result in the greatest long term retention but cramming and rereading may lead to short term gains in knowledge.

7.6. End unit assessment

- Invite students to do an end unit assessment
- Collect their works and mark them
- Give students feedback as soon as possible

End unit assessment

Answers to end unit assessment activities

1. Declarative memory allows us to consciously recollect events and facts. It is generally indexed by our ability to explicitly recall or recognize those events or facts. No declarative memory, in contrast, is accessed without consciousness or implicitly through performance rather than recollection.

2. Some information is processed automatically and this is associated to procedural memory which refers to our knowledge of skills and how to perform tasks, and is something we mostly remember automatically without conscious effort.

   Example: we don't need to consciously think about how to ride a bike or play an instrument we simply go through the motions once we have learned how to do it.

3. Sensory memory is the first stage in forming explicit memories. It is immediate, very brief recording of sensory information in the memory system. Sensory memories are stored for a few seconds at most. It receives information which comes from the five senses: hearing, vision, touch, smell, and taste. That information is stored only for as long as the sense is being stimulated. They are then reprocessed and associated with a memory that may store in your short-term memory.

4. For strategies that can help to remember new information refer to student book unit 7, point 7.8

5.

a) Long term memory has unlimited capacity/unlimited storage information to be maintained for long periods, even for life.

b) Long term memories are not stored in one specific region of the brain. Rather, they are stored in the form of circuits throughout the nervous system (we do not store information in single, specific spots as libraries store their books many parts of our brain interact as we encode, store and retrieve information.

6. Our explicit conscious memories of facts and episodes differ from our implicit memories of skills and classically conditioned responses. The parts of the brain involved in explicit memory processing may have sustained damage in the accident, while the parts involved in implicit memory processing appear to have escaped harm.

7.7. Additional activities

Remedial activities

The concept of working memory

Clarifies the idea of short term memory by focusing on the active processing that occurs in this stage

Splits short term memory into two sub stages sensory memory and working memory

Splits short term memory into two areas working memory and inaccessible memory

Clarifies the idea of short term memory by focusing on space, time and frequency

Our short term memory for new information is limited to about **seven** items

Multiple choice questions test our **recognition** (recall, recognition, relearning, sensory memory)

Fill in blank questions tests our **recall** (recall, recognition, relearning, sensory memory)

Memory aids that use visual imagery or other organisational devices are called **mnemonic**

Hippocampus damage typically leaves people enable to learn new facts or recall recent events. However, they may be able to learn new skills such as riding a bicycle, which is an **implicit** (implicit/explicit) memory

When forgetting is due to encoding failure, information has not been transferred from

The environment into sensory memory
- Sensory memory into long term memory
- Long term memory into short term memory
- Short term memory into long term memory

The hour before sleep is a good time to memorise information because going to sleep after learning new material minimizes **proactive** interference.

Freud proposed that painful or unacceptable memories are blocked from consciousness through a mechanism called **repression**

At which of three memory stages would iconic and echoic memory occur?

Sensory memory

Differentiate three levels/stages of memory?

Sensory memory: the immediate, very brief recording of sensory information in the memory system.

Short term memory: activated memory that holds a few items briefly (such as the seven digits of a phone number while calling) before the information is stored or forgotten.

Working memory: a newer understanding of short term memory that adds conscious active processing of incoming auditory and visual-spatial information and of information retrieved from long term memory

Long term memory: the relatively permanent and limitless storehouse of the memory system which includes knowledge, skills and experiences.

Consolidation activities

When do we forget?

Forgetting can occur at any memory stage (sensory memory, short term memory, long term memory) because when we process information we filter, alter or lose much of it.

Many reasons can influence forgetting (refer to point 7.5, 7.6 and 7.7 in the student book)

How do psychologists assess memory with recall, recognition and relearning?

Memory is learning that persists over time. Three types of evidence indicate whether something has been learned and retained.

- **Recall**: retrieving information out of storage and into your conscious awareness.

Example: Fill in the blank questions

- **Recognition:** identifying the items you previously learned.

Example: a multiple choice question

- **Relearning**: learning something more quickly when you learn it a second or later time.

Example: reviewing the first weeks of course work to prepare for your final exam, you will relearn the material more easily than you did originally.

Using a diagram summarise information processing model?

Answer: refer to student book on point 7.1

If you want to be sure to remember what you're learning for an upcoming test, would it be better to use recall or recognition to check your memory? why?

It would be better to test your memory with recall (such as with short- answer or fill- in- the blank self-test questions) rather than recognition (such as with multiple-choice questions). recalling information is harder than recognizing it.so if you can recall it that means your attention of the material is better than if you could only recognize it. your chances of test success are therefore greater.

Extended activities

Describe key memory structure in the brain and their roles?
- **Frontal lobes and hippocampus:** explicit memory formation
- **Cerebellum and basal ganglia:** implicit memory formation
- **Amygdala:** emotion-related memory formation

How do implicit and explicit memories differ?

Implicit memories (also called non-declarative memories) are memories formed without our conscious effort they are formed through automatic processing. This means that the retention of learned skill or classically conditioned associations without conscious awareness.

Explicit memories (also called declarative memories) facts and experiences we can consciously know and declare. We encode explicit memories through conscious effortful processing. This means retention of facts and personal events that you can consciously retrieve.

What do you understand by chunking effect?

Chunking effect means organising information into meaningful units, such as letters, words and phrases that helps to recall it more easily.

What is the difference between automatic and effortful processing and what are some examples of it?

Automatic processing occurs unconsciously(automatically) for such things as the sequence and frequency of a day's events and reading and understanding words in our own language.

Effortful processing requires us to focus attention and make an effort, as when we work hard to learn new material in class or new line for a playa

Unit 8

INTELLIGENCE

8.1. Key unit competence

Assess how intelligence impacts human behaviours

8.2. Prerequisite

Students will learn and understand better this unit since they have understood cognitive development learnt in senior four. The prior knowledge on learning psychology seen in unit 5 of senior five will also facilitate the understanding of this unit. In this unit, students will need to refer and make comparison to their everyday experience related their studies. They already know that they don't have the same ability to learn or to solve problem.

8.3. Cross-cutting issues to be addressed

Gender education: The teacher should bear in mind that all students (girls and boys) have equal opportunities and rights to study and develop their intelligence. When forming group activities, assigning tasks and responsibilities, asking questions, and giving feedback teacher should include both girls and boys.

Peace and Values Education: Intelligence involves peace and value education, due to the fact that, this crosscutting issue is all about how education can contribute to a better awareness of the root causes of conflict, violence and disturbances at the personal. Therefore, the intelligence should not be used to harm, but to promote peace.

Environment and sustainability

This may be broadly understood to mean our surroundings. The teacher will mention it by emphasizing the use intelligence for protecting the environment not destroying it.

Inclusive education

When teaching this unit, the teacher will address specific needs and differences related to intelligence and the teacher will focus on none discrimination due to different intelligences or intellectual disabilities.

8.4. Guidance on introductory activity

- Invite student teachers to join pairs
- Let them read and discuss the scenario found in the introductory activity and then answer the question.
- Have some pairs to present what they have discussed.
- Orient the discussion towards key terms related to intelligence and its history

Introductory activity

The difference between Kalisa and Kamana is due to their different abilities caused by their level of intelligence.

8.5. List of lessons

	Lesson title/sub heading	Learning objectives	Number of periods
1	Key terms related to intelligence.	Explain the key terms related to intelligence	2
2	Brief history of intelligence	Discuss the brief history of intelligence	1
3	Theories of intelligence (Sternberg's triarchic Theory and Gardner's theory of multiple intelligences	Analyze Sternberg's triarchic theory and Gardner's theory of multiple intelligences	3
4	Theories of intelligence (Piaget's theory of Development)	Discribe Piaget's theory of development	2
5	Types of intelligence (Word Smart, Math Smart, Physically Smart, Music Smart and people smart)	Analyze the types of intelligence	2
6	Types of intelligence (Self-smart, Naturalistic, Existential, Visual-spatial)	Apply knowledge of intelligence learnt to deal with complex situations.	3
7	Determinants of intelligence	Compare and contrast determinants of intelligence.	2

8	Measuring intelligence	Apply I Q test to meaure intelligenc of a give child	2
9	Intellectual disabilities	Suggest best practices needed to cater for people with intellectual disabilities	3
10	End unit assessment		1
	Total number of periods		21

Lesson 8.1: Key terms related to intelligence.

a) Learning objective

Explain the key terms related to intelligence

b) Teaching resources

Flip chart, markers, flash cards, handouts with descriptions concepts related to intelligence

c) Prerequisites/Revision/Introduction

Student will learn better key concepts related to intelligence since they have an understanding on terms related to cognitive development seen in senior.

d) Learning activities

Activity 8.1.

- Invite student to read individually the question in the student book and work in pairs to create a mind map on a flip chart and write words related to intelligence.
- Have some pairs to make presentations.
- Provide constructive feedback in terms of supplements.
- Ask students to display their mind map in the classroom.

Suggested Answers to activity 8.1

Terms related to intelligence are: ability, aptitude, intellect, intellectuality, reasoning, perception, thinking, mind.

– Give a supplementary needed explanation on concepts related to intelligence

e) Application activities 8.1

1. Gardner defined **intelligence** as "the ability or skill to solve problems or to fashion products which are valued within one or more cultural settings"

2. Ability, commonly known as intelligence, represents one of the most important sources of individual differences. Ability is the innate capacity to act and helps in the solution of a problem.

3. Aptitude refers to the ability to learn a particular kind of skill required in a specific situation

Lesson 8.2: Brief history of intelligence

a) Learning objective

Discuss the brief history of intelligence

b) Teaching resources

Flash cards, handouts with descriptions of the brief history of intelligence, computer and internet

c) Prerequisites/Revision/Introduction

Students will learn better the brief history of intelligence since they have an understanding on key concepts related to intelligence learned in the previous lesson and the Background and Origin of Psychology learned in senior four.

d) Learning activities

Activity 8. 2.

- Bring students to the smart classroom
- Ask them to make a research and find out the first people to talk about intelligence
- Ask to work in pairs and share what they have found
- Have some pairs to make presentations.
- Ask students some questions in order support their ideas

Suggested Answers to activity 8.2

There are Plato, Thomas Aquinas and Immanuel Kant

– Give supplementary needed explanation on brief history of intelligence

e) Application activities

Immanuel Kant believed that there are different kinds of intelligence or perhaps different facets of intelligence, and that people clearly differed in the degree to which they possessed them.

Lesson 8.3 Theories of intelligence (Sternberg's triarchic Theory and Gardner's theory of multiple intelligences

a) Learning objective

Analyse Sternberg's triarchic theory and Gardner's theory of multiple intelligences

b) Teaching resources

Flash cards, handouts with descriptions of Sternberg's triarchic Theory and Gardner's theory of multiple intelligences, computer and internet

c) Prerequisites/Revision/Introduction

The understanding of what is intelligence will help students to learn better Sternberg's triarchic theory and Gardner's theory of multiple intelligences. Their everyday experience to perform in different things will also help students to understand multiple intelligences.

d) Learning activities

Activity 8.3.

- Bring students to the smart classroom
- Ask students to work in pairs and reflect on the question give in their book
- Ask them to make a research and find out whether their findings are correct
- Have some pairs to make presentations.
- Ask students some questions in order support their idea

Suggested Answers to activity 8.3

Intelligence cannot be viewed as a single entity. There are different types of intelligences which are independent of each other. Further, people may have varied combinations of these intelligences. This correspond to Gardner's theory of multiple intelligences

– With clear examples, provide deep explanation on Sternberg's triarchic theory and Gardner's theory of multiple intelligences.

e) Application activities 8.3

Suggested Answers to application activity 8.3

1. Three types of intelligence according to STERNBERG are (a) Componential or analytical intelligence, (b) Experiential or creative intelligence, and (c) Contextual or practical intelligence.

2. Linguistic Intelligence, Spatial Intelligence, Logical-Mathematical Intelligence, Musical Intelligence, Bodily-Kinesthetic Intelligence, Interpersonal Intelligence, Intra-personal Intelligence, Naturalist Intelligence, Existentialist Intelligence, Spiritual Intelligence. Definition (see student book)

Lesson 8.4: Theories of intelligence (Piaget's theory of Development)

a) Learning objective

Describe Piaget's theory of development

b) Teaching resources

Flip chart, markers, Flash cards, handouts with descriptions of Piaget's theory of Development

c) Prerequisites/Revision/Introduction

Students will learn better Piaget's theory of intelligence since they have an understanding on Piaget's theory of development

d) Learning activities

Activity 8.4.

- Ask students to revise their notes on Piaget's theory of Development seen in senior four
- Ask them to share in a plenary session what they remember
- Ask them to make a comparison of Piaget's theory of Development to intelligence
- Have them share their findings

Suggested Answers to activity 8.4

The Sensorimotor Stage, The Preoperational Stage, The Concrete Operational Stage, The Formal Operational Stage

– Provide deep explanation on Piaget's theory of intelligence

e) Application activities

Suggested Answers to application activity 8.4

1. Sensory-motor stage, preoperational period, the stage of operations, the stage of logical formal operations (Definitions: See student book,)

2. Scheme is one of the main concepts of Piaget - it is a cognitive structure (or mental structure) by which the individual intellectually adapts to and organizes his environment.

Lesson 8.5: Types of intelligence (Word Smart, Math Smart, Physically Smart, Music Smart and people smart)

a) Learning objective

Analyse the types of intelligence

b) Teaching resources

Flip chart, markers, Flash cards, handouts with descriptions of Word Smart, Math Smart, Physically Smart, Music Smart and people smart

c) Prerequisites/Revision/Introduction

Students will learn better (Types of intelligence: Word Smart, Math Smart, Physically Smart, Music Smart and people smart) because they already understand what is multiple intelligences.

d) Learning activities

Activity 8.5.

- Ask students to go back and think of subjects they studied in primary and indicate one they performed better and explain why.
- Invite students to share their reasons in pairs
- Ask pairs to share what they have discussed in pairs

Suggested Answers to activity 8.5

The teacher will consider the student individual answer and link it with the explanation of Word Smart, Math Smart, Physically Smart, Music Smart)

– Give a supplementary needed explanation on Word Smart, Math Smart, Physically Smart, Music Smart and people smart)

e) Application activities 8.5

A person is said to be smart when he/she has ability or capacity to perform a certain activity in given domain. eg. A person who has the capacity to use language is word smart, a person who has the ability to distinguish the sounds is music smart.

Lesson 8.6: Types of intelligence (Self-smart, Naturalistic, Existential, Visual-spatial)

a) Learning objective

Apply knowledge of intelligence learnt to deal with complex situations.

b) Teaching resources

Flip chart, markers, Flash cards, handouts with descriptions of Word Smart, Math Smart, Physically Smart, Music Smart and people smart

c) Prerequisites/Revision/Introduction

Students will learn better types of intelligence (Self-smart, Naturalistic, Existential, Visual-spatial) since they have an understanding on Word Smart, Math Smart, Physically Smart, Music Smart and people smart; and the understanding on multiple intelligences in general.

d) Learning activities

Activity 8.6

- Invite students to work in pairs and analyse the scenario given in the student textbook
- Have some pairs to make presentations
- Ask additional questions to consolidate their understandings.

Suggested Answers to activity 8.6

The fact that Mwiza has ability to identify her strengths and weaknesses sides, this shows that she will know how to cope with different people because these differ in the ways they think, feel and act. So she will have ability to judge well, to understand well, and to reason well" towards different people. Mwiza will also use the ability that she has in herself to adapt in a given situation.

- Give a supplementary needed explanation on types of intelligence (Self-smart, Naturalistic, Existential, Visual-spatial)
- Have students to share ideas on those types of intelligence (Self-smart, Naturalistic, Existential, Visual-spatial) by relating them to their everyday experience.

e) Application activities

Suggested Answers to application activity 8.6

They are good in spatial orientation, forming visual images and patterns and good at remembering images, figures, faces, fine details and visualise things from different angles.

People with high visual/spatial intelligence are likely to be architects, painters, interior designers, surgeons, pilots, drivers and sailors.

Lesson 8.7: Determinants of intelligence

a) Learning objective

Compare and contrast determinants of intelligence.

b) Teaching resources

Flip chart, markers, flash cards, Handouts with the description of determinants of intelligence

c) Prerequisites/Revision/Introduction

Students have knowledge about the determinants of human development. As they are similar determinants explained in different way, it will be easy for students to undestand the determinants of intelligence.

d) Learning activities

Activity 8.7

- Invite students to work in groups, read the given senior in their book and then answer to the related question
- Ask groups to share their findings
- Ask additional questions to consolidate their understandings.

– Those two students are different in their learning because they come from different families and they have different environmental factors.

– Give a supplementary needed explanation on determinants of intelligence

e) Application activities

1. See the description of two determinants in student book.

2. Intelligence is also strongly influenced by the environment. During a child's development, factors that contribute to intelligence include their home environment and parenting, education and availability of learning resources, and healthcare and nutrition.

Lesson 8.8: Measuring intelligence

a) Learning objective

Apply I Q test to measure intelligence of a give child

b) Teaching resources

Flip chart, markers, flash cards, Handouts with the description of how to measure intelligence

c) Prerequisites/Revision/Introduction

Students will learn better Measuring intelligence since they have an understanding on what is intelligence and multiple intelligence.

d) Learning activities

Activity 8.8

- Invite students to work in groups and reflect on measuring intelligence and necessary elements to be considered when measuring intelligence.
- Ask groups to present their findings
- Ask questions bringing to the qualities of a good counsellor

Yes, intelligence can be measure. The necessary elements are mental age and chronological age

- Demonstrate the formula to use in order to measure intelligence.
- Give some related activities.

e) Application activities

Developmental factors, Emotional factors, Family and cultural factors

(Description: see student book)

Lesson 8.9: Intellectual disabilities

a) Learning objective

Suggest best practices needed to cater for people with intellectual disabilities

b) Teaching resources

Flip chart, markers, flash cards, Handouts with the description of qualities of a good   counsellor

c) Prerequisites/Revision/Introduction

Students will learn better intellectual disabilities since they have an understanding on chromosomal abnormalities and toxic stress learned in senior four.

d) Learning activities

Activity 8.9

- Invite students to work in groups, reflect on the given scenario, then answer the questions that follows
- Ask groups to present their findings
- Ask questions bringing to intellectual disabilities.

Jane may have an intellectual disability

– Provide supplementary needed explanation on intellectual disabilities for more clarifications.

e) Application activities

> **Suggested Answers to application activity 8.9**
>
> 1. - Biomedical: factors that relate to biological processes, such as genetic disorders or nutrition.
>   - Social: factors that relate to social and family interaction, such as stimulation and adult responsiveness.
>   - Behavioural: factors that relate to potentially causal behaviours, such as dangerous (injurious) activities or maternal substance abuse.
>   - Educational: factors that relate to the availability of educational supports that promotes mental development and the development of adaptive skills.
>
> 2. People with intellectual disabilities connected to language have delayed speech, language comprehension and formulation difficulties.

8.6. Additional information for teachers

Other theories of intelligence

Faculty theory:

It is the oldest theory regarding the nature of intelligence and flourished during 18th and 19th century. According to this theory, mind is made up of different faculties like reasoning, memory, discrimination, imagination, etc. These faculties are independent of each other and can be developed by vigorous training. Faculty Theory had been under criticism by experimental psychologists who disproved the existence of independent faculties in the brain.

One factor/UNI factor theory:

It reduces all abilities to a single capacity of general intelligence or 'common sense'. This would imply that they are all perfectly correlated, and would make no allowance for the unevenness of people i.e. abilities along different lines. Since it goes against the common observation that ''an individual does possess different levels of different abilities and does not shine equally in all directions''— it has no ground to stand.

Spearman's two-factor theory :

It was developed in 1904 by an English Psychologist, Charles Spearman, who

proposed that intellectual abilities were comprised of two factors: one general ability or common ability known as 'G' factor and the other a group of specific abilities known as 'S' factor. 'G' factor is universal inborn ability. Greater 'G' in an individual lead to greater success in life. 'S' factor is acquired from the environment. It varies from activity to activity in the same individual.

Thorndike's multifactor theory:

Thorndike believed that there was nothing like General Ability. Each mental activity requires an aggregate of different set of abilities. He distinguished the following four attributes of intelligence:

a) **Level**—refers to the level of difficulty of a task that can be solved.

b) **Range**—refers to a number of tasks at any given degree of difficulty.

c) **Area**—means the total number of situations at each level to which the individual is able to respond.

d) **Speed**—is the rapidity with which we can respond to the items.

Thurstone's theory: Primary mental abilities/Group factor theory:

States that Intelligent Activities are not an expression of innumerable highly specific factors, as Thorndike claimed. Nor is it the expression primarily of a general factor that pervades all mental activities. It is the essence of intelligence, as Spearman held. Instead, the analysis of interpretation of Spearman and others led them to the conclusion that 'certain' mental operations have in common a 'primary' factor that gives them psychological and functional unity and that differentiates them from other mental operations. These mental operations then constitute a group. A second group of mental operation has its own unifying primary factor, and so on. In other words, there are a number of groups of mental abilities, each of which has its own primary factor, giving the group a functional unity and cohesiveness. Each of these primary factors is said to be relatively independent of the others.

Thurstone has given the following six primary factors:

i) **The Number Factor** (N)—Ability to do Numerical Calculations rapidly and accurately.

ii) **The Verbal Factor** (V)—Found in tests involving Verbal Comprehension.

iii) **The Space Factor** (S)—Involved in any task in which the subject manipulates the imaginary object in space.

iv) **Memory** (M)—Involving ability to memorize quickly.

v) **He Word Fluency Factor** (W)—Involved whenever the subject is asked to think of isolated words at a rapid rate.

vi) The Reasoning Factor (R)—Found in tasks that require a subject to discover a rule or principle involved in a series or groups of letters. Based on these factors Thurstone constructed a new test of intelligence known as "Test of Primary Mental Abilities (PMA)."

GUILFORD'S MODEL OF STRUCTURE OF INTELLECT

Guilford (1967, 1985, 1988) proposed a three dimensional structure of intellect model. According to Guilford every intellectual task can be classified according to its (1) content, (2) the mental operation involved and (3) the product resulting from the operation. He further classified content into five categories, namely, Visual, Auditory, Symbolic, Semantic and Behavioural. He classified operations into five categories, namely, Cognition, Memory retention, Memory recording, Divergent production, Convergent production and evaluation. He classified products into six categories, namely, Units, Classes, Relations, Systems, Transformations and Implications.

VERNON'S HIERARCHICAL THEORY:

Vernon' description of different levels of intelligence may fill the gaps between two extreme theories, the two-factor theory of Spearman, which did not allow for the existence of group factors, and the multiple-factor theory of Turstone, which did not allow a "g" factor.

Intelligence can be described as comprising abilities at varying levels of generality:

1. The highest level: "g" (general intelligence) factor with the largest source of variance between individuals. (Spearman)

2. The next level: major group factors such as verbal-numerical-educational (v.ed) and practical-mechanical-spatial-physical (k.m.) ability.

3. The next level: minor group factors are divided from major group factors.

4. The bottom level: "s"(specific) factor. (Spearmen) Beginning in 1969, Vernon became increasingly involved in studying the contributions of environmental and genetic factors to intellectual development. Vernon continued to analyse the effects of genes and the environment on both individual and group difference in intelligence. He concludes that individual difference in intelligence are approximately 60 percent attributable to genetic factors, and that there is some evidence implicating genes in racial group differences in average levels of mental ability.

ANDERSON'S THEORY: COGNITIVE DEVELOPMENT

Anderson proposes that human cognitive architectures will have adapted optimally to the problems posed in their environment. Therefore, discovering the optimal solution to the problem posed by the environment, independent of the architecture, is equivalent to discovering the mechanism used by the architecture. A 'Rational Analysis', as it is called, takes into account the available information in the environment, the goals of the agent, some basic assumptions about computational cost (in terms of a 'general' architecture mechanism), and produces the optimal behavioural function. This function then of course can be tested empirically and assumptions modified if it proves inaccurate. A contrasting point of view to this is espoused by Simon, and is centered around the claim that, in a rational analysis, the assumptions about the architecture actually do most of the work.

EYSENCK'S STRUCTURAL THEORY

Eysenck discovered the neurological correlates of intelligence. He identified three correlates of intelligence i.e. reaction time, inspection time and average evoked potential. First two are observed behaviour. Third behaviour, is description of mental waves. Brighter individual progressively takes less time in responding. They show less variability in reaction time. Their inspection time is also less as compared to less intelligent. Average evoked potential is often measured by the wavelength in electroencephalogram and complexities of waveform. He found that the waves of intelligent individuals are complex.

Ceci's Biological Theory

Ceci (1990) proposes that there are multiple cognitive potentials. These multiple intelligences are biologically based and place limits on mental processes. These are closely linked to the challenges and opportunities in the individual's environment. In his view, context is essential to the demonstration of cognitive abilities. By context, he means domain of knowledge and other factors such as personalities, motivation and education. Context can be mental, social or physical.

THEORY OF EMOTIONAL INTELLIGENCE

According to Goleman (1995), Emotional Intelligence consists of "abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think: to empathize, and to hope". The main areas are: knowing one's emotions, managing emotions, motivating oneself, recognizing emotions in others, and handling relationships.

8.7. End unit assessment

- Invite students to do an end unit assessment
- Collect their works and mark them
- Give students feedback

End unit assessment

Possible answers for end unit assessment activities

1. Intelligence plays a significant role in many areas including educational program funding, job applicant screening, and testing to identify children who need additional academic help.

2. Intelligence is the ability to:
   - **Learn from experience:** The acquisition, retention, and use of knowledge is an important component of intelligence.
   - **Recognize problems:** To use knowledge, people first must identify the problems it might address.
   - **Solve problems:** People must then use what they have learned to come up with solutions to problems.1

3. Considering the severity of disability, Intellectual disability is divided into four categories: mild, moderate, severe and profound intellectual disability. See details in student book

8.8. Additional activities

Remedial activities

1. Define the concepts intelligence

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'.

2. Discuss any eight types of multiple intelligences
   - **Bodily-kinesthetic intelligence:** The ability to control body movements and handle objects skilfully
   - **Interpersonal intelligence:** The capacity to detect and respond appropriately to the moods, motivations, and desires of others

- **Intrapersonal intelligence:** The capacity to be self-aware and in tune with inner feelings, values, beliefs, and thinking processes
- **Logical-mathematical intelligence:** The ability to think conceptually and abstractly, and to discern logical or numerical patterns
- **Musical intelligence:** The ability to produce and appreciate rhythm, pitch, and timbre
- **Naturalistic intelligence:** The ability to recognize and categorize animals, plants, and other objects in nature
- **Verbal-linguistic intelligence:** Well-developed verbal skills and sensitivity to the sounds, meanings, and rhythms of words
- **Visual-spatial intelligence:** The capacity to think in images and visualize accurately and abstractly

Consolidation activities (Questions and possible answers)

1. Distinguish Fluid Intelligence from Crystallized Intelligence

   Psychologist Raymon Cattell, along with his student John Horn, created the theory of fluid versus crystallized intelligence. Fluid intelligence involves the ability to solve new problems without relying on knowledge from previous experiences. According to the theory, a person's fluid intelligence declines as they get older. Crystallized intelligence, on the other hand, increases with age. This type of intelligence is based on concrete facts and experiences.

2. Explain the difference between assimilation and accommodation

   Assimilation consists in treating the output stimuli by the use of already created schemes of behaviour without their changing (because stimuli are familiar to or recognizable by an organism). But when the process of recognizing stimuli fails due to the insolvency of available schemata then the accommodation process comes forward and **accommodation** consists in changing schemata or inventing new ones to assimilate new stimuli.

3. Is intelligence a single ability, or does it involve multiple skills and abilities?

   Intelligence is not a single ability. It involves multiple skills and abilities. (Seen details on types of multiple intelligences in student book)

1. Distinguish different characteristics of intellectual disabilities
   see answer in student book

2. Discuss the impact intellectual disabilities on the society
   Having an intellectual disability can create stress and vulnerability, for both the person and their support network. People with an intellectual disability may also experience higher rates of abuse compared to the general population, which creates additional needs for support.

3. Is intelligence inherited, or does the environment play a larger role?
   Intelligence has two main determinants: heredity and environment (details : seen student book)

Unit 9 MOTIVES OF LEARNING

9.1. Key unit competence

Justify how motives of learning contribute to acquisition of behavior

9.2. Prerequisite

Students will learn and understand better this unit since they have understood cognitive development learnt in senior 4. The prior knowledge on types of Behavioural learning (unit 6) and on Memory (unit 7) seen previously in senior five will also facilitate the understanding of this unit9. To enhance their learning, students will need to refer and make comparison between their studies and everyday experiences.

9.3. Cross-cutting issues to be addressed

Gender education: The teacher should bear in mind that all students (girls and boys) have equal opportunities and rights to study the motives of learning. When forming group activities, assigning tasks and responsibilities, asking questions, and giving feedback teacher should consider the presence of both girls and boys in the classroom.

Peace and Values Education

This cross-cutting issue will be addressed when teacher invites students to work together in harmony (peaceful manner). They should be aware of root causes of conflict, violence and disturbances while in groups and the measures of settling them when arise.

Environment and sustainability

This may be broadly understood to mean our surroundings and we know that learning can even take place out of the classroom (in school compound) and even outside the school. In this case, teacher will remind the students to protect environment and not destroying it.

Inclusive education

When teaching this unit, the teacher will address specific needs and differences among students. All students including those with special educational needs will be catered for. Teacher will avoid any kind of discrimination during teaching and learning process.

9.4. Guidance on introductory activity

- Form groups of five students
- Bring all groups in smart classroom and/or in school library
- Let them research the types of motives
- Invite some groups to share their findings in plenary
- Allow some students to ask questions for more clarifications
- Invite some students to make summary from presentations
- Provide supplements and constructive feedback

Introductory activity

Types of motives:

– Physiological motives, social motives and personal motives

Analyse, consider and value all answers that students provide

9.5. List of lessons

	Lesson title/sub heading	Learning objectives	Number of periods
1	Key motives to Learning (Physiological Motives)	Describe physiological motives to learning.	4
2	Key motives to learning (Social Motives)	Explain different social motives of learning	4
3	Key motives to learning (personal Motives)	Explain personal motives of learning	4
4	Acquisition of new behaviors and attitudes	Discuss how individuals acquire new behaviors and attitudes	4

5	Reasons why peoples' Behavior patterns and Attitude change in time and in space	Justify why people's behavior patterns and attitudes change in time and space.	3
	End unit assessment		2
	Total number of periods		21

Lesson 9.1: Key motives to learning' Physiological Motives'

a) Learning objective

Describe physiological motives to learning.

b) Teaching resources

Flip chart, markers, flash cards, books, computers, internet connection and handouts

c) Prerequisites/Revision/Introduction

Students will learn better the physiological motives of learning since they have an understanding on cognitive development learned in senior four, early approaches of learning and motivation acquired previous units of senior five.

d) Learning activities

Activity 9.1.

- Form groups of five students
- Bring all groups in smart classroom and/or in school library
- Let them research the meaning and types of physiological motives of learning
- Invite some groups to share their findings in plenary
- Allow some students to ask questions for more clarifications
- Invite some students to make summary from presentations
- Provide supplements and constructive feedback

Suggested Answers to activity 9.1

Physiological motives of learning are basic needs that are essential for survival of the organism. There are basic, inborn and biological drives that are present in all beings.

For example, water, food, air/oxygen for respiration, shelter, sleep/rest, clothes,….

– Give supplementary needed explanations for students to consolidate and extend their learning.

e) Application activity

> ### Suggested Answers to application activity 9.1
>
> To facilitate Rwandan students to learn be it in students' families and at school, the government of Rwanda has put in place different programmes. The following are some of them:
> - Feeding programme at school for all students
> - Introduction of kichen's garden (akarima k'igikoni) in families
> - Culture of hygiene and sanitation
> - Health insurance (Mituelle de Sante)
> - Cow for every Rwandan (Gira inka munyarwanda)
> - Safe water for Rwandan family
> - Electricity for all Rwandan families
> - Increased means of transport

Lesson 9.2: Key motives to learning' Social Motives'

a) Learning objective

Explain different social motives to learning

b) Teaching resources

Flash cards, handouts, books, computers, internet connection

c) Prerequisites/Revision/Introduction

Students will learn better the social motives of learning since they have an understanding on cognitive development learned in senior four, early approaches of learning and motivation acquired previous units of senior five.

d) Learning activities

Activity 9. 2.
- Form groups of five students
- Bring all groups in smart classroom and/or in school library
- Let them research the meaning and types of social motives of learning
- Invite some groups to share their findings in plenary
- Allow some students to ask questions for more clarifications

- Invite some students to make summary from presentations
- Provide supplements and constructive feedback

Suggested Answers to activity 9.2

Social motives of learning are motives that are learned in social groups as results of interaction with the family and society. Achievement, aggression, power and curiosity are some examples of social motives of learning.

– Give supplementary needed explanations for students to consolidate and extend their learning.

e) Application activity

Suggested Answers to application activity 9.2

To promote social motives in schools so as to facilitate students' learning, the following strategies should be used:

- Avoid confusion that may lead to frustration in students.
- Encourage group activities in the classroom
- Encourage curiosity in the classroom
- Promote cooperative learning in the classroom
- Encourage clubs and associations in the classroom
- Encourage learners set goals and achieve them
- Encourage students participate in different meetings

Lesson 9.3: Key motives to learning 'Personal Motives'

a) Learning objective

Explain personal motives of learning

b) Teaching resources

Flash cards, handouts, books, computer and internet

c) Prerequisites/Revision/Introduction

Students will learn better the personal motives of learning since they have an understanding on cognitive development learned in senior four, early approaches of learning and motivation acquired previous units of senior five.

d) Learning activities

Activity 9.3.

- Form groups of five students
- Bring all groups in smart classroom and/or in school library
- Let them research the meaning and types of personal motives of learning
- Invite some groups to share their findings in plenary
- Allow some students to ask questions for more clarifications
- Invite some students to make summary from presentations
- Provide supplements and constructive feedback

Suggested Answers to activity 9.3

Personal motives of learning are things that cause a person to act in a certain way, do a certain thing. They are internal forces/energies/stimuli that push an individual to react or do something. These include for example habits, goals of life, level of aspiration, attitude, interest, initiative, etc.

– Give supplementary needed explanations for students to consolidate and extend their learning.

e) Application activity

Suggested Answers to application activity 9.3

To promote personal motives in my students, I will do the following:

- Encourage habits of reading books and other sources of information
- Encourage students take responsibility without being told to do so
- Encourage volunteerism/doing something without waiting for external rewards
- Prepare interesting lessons and activities
- Invite students set goals and be responsible for reaching them
- Encourage students have high aspirations and strive to achieve them

Lesson 9.4 : Acquisition of new behaviors and attitudes

a) Learning objective

Discuss how individuals acquire new behaviors and attitudes

b) Teaching resources

Flip chart, markers, Flash cards, handouts, books, computers and internet connectivity.

c) Prerequisites/Revision/Introduction

Students will learn better the ways of acquiring new behaviours and attitudes since they have an understanding on types of behaviours learning, motives of learning.

d) Learning activities

Activity 9.4

- Form groups of five students
- Bring all groups in smart classroom and/or in school library
- Let them research the ways of acquiring new behaviours and attitudes
- Invite some groups to share their findings in plenary
- Allow some students to ask questions for more clarifications
- Invite some students to make summary from presentations
- Provide supplements and constructive feedback

Suggested Answers to activity 9.4

New behaviors and attitudes are acquired through different ways, some of them include direct personal experience, observation, conditioning, peer group, family, community, association, practice, communication, media among others

– Provide deep explanations on the ways of acquiring new behaviours and attitudes for students to consolidate and extend their learning

e) Application activities

Suggested Answers to application activity 9.3

Relationship between attitudes and behaviours.

The relationship between attitude and behaviour is complex and it is often difficult to predict one's attitude from his/her behaviour. But there are certain specific conditions under which attitudes can predict behaviour:

When one holds a strong attitude or when one is conscious of one's attitude, thereby it is also easily recalled and possible to predict behaviour.

When attitudes are strong and consistent, that is when the components of attitude are clear and stable they better predict behaviour. Weak, unimportant and ambiguous attitudes are less likely to predict behaviour

When attitudes have been formed through direct experience prediction of behaviour is more accurate

When one acts under social pressure attitude may be expressed in diverse ways. An adolescent may not want to smoke or drink because it affects health. But peer group pressure may force him/her to drink. Thus his/her way of drinking is different from his/her behaviour. When external influences are minimal then attitude-behaviour relationship becomes strong.

Lesson 9.5: Reasons why peoples' Behavior patterns and Attitude change in time and in space

a) Learning objective

Justify why people's behavior patterns and attitudes change in time and space.

b) Teaching resources

Flip chart, markers, Flash cards, books, handouts, computers and internet connectivity.

c) Prerequisites/Revision/Introduction

Students will learn better the reasons why people's behaviour patterns and attitudes change in time and space because they already understand socio-affective development learned in senior four.

d) Learning activities

Activity 9.5.

- Form groups of five students
- Bring all groups in smart classroom and/or in school library
- Let them research the reasons why peoples' Behavior patterns and Attitude change in time and in space
- Invite some groups to share their findings in plenary
- Allow some students to ask questions for more clarifications
- Invite some students to make summary from presentations
- Provide supplements and constructive feedback

People's behavior patterns and attitudes change in time and in space due to:
- New information they can learn
- Meeting with the influential people
- Interaction with social media
- Read stories
- Some songs
- Peer pressure/groups
- Participation in seminars/meeting
- Speeches of leaders
- Transition from school to another
- Changing living area/district or country
- Developments in the country

– Give supplementary needed explanations on the reasons why people's behaviour patterns and attitudes change in time and space.

e) Application activity

Suggested Answers to application activity 9.5

Behavior and attitude change has positive impact in everyday life in the following ways:
- People will be more productive than before
- Students will perform better at school
- Youth will not be engaged in anti-social activities
- Parents increase care for their families
- Strong relationships among people will be enhanced
- All children will go to school
- Children will assume their responsibilities both at school and at home
- Diseases caused by some misbehavior will be reduced
- Living in harmony and peace will be fostered
- Family income and properties will be well managed
- Correction (prisons) centers and rehabilitations centers will not overloade*d*

- The schools will produce responsible and fruitful citizens
- Road accidents will be reduced
- Etc.

9.6. Additional information for teachers

Apart from the motives of learning discussed in student books, there other factors that play a big role on student's learning. Some of them are the following:

1. Intellectual factor:

The term refers to the individual mental level. Success in school is generally closely related to level of the intellect. Pupils with low intelligence often encounter serious difficulty in mastering schoolwork. Sometimes pupils do not learn because of special intellectual disabilities.

A low score in one subject and his scores in other subjects indicate the possible presence of a special deficiency. Psychology reveals to use that an individual possess different kinds to intelligence. Knowledge of the nature of the pupil's intellect is of considerable value in the guidance and the diagnosis of disability.

The native capacity of the individual is of prime importance in determining the effectiveness of the, learning process.

2. Learning factors:

Factors owing to lack of mastery of what has been taught, faulty methods of work or study, and narrowness of experimental background may affect the learning process of any pupil. If the school proceeds too rapidly and does not constantly check up on the extent to which the pupil is mastering what is being taught, the pupil accumulates a number of deficiencies that interfere with successful progress.

In arithmetic, for instance, knowledge of basic addition is essential to successful work in multiplication. Weakness in addition will contribute directly to the deficiency in multiplication. Likewise, failure in history may be due to low reading ability or weakness in English. Similarly, because of faulty instruction, the pupil may have learned inefficient methods of study. Many other kinds of difficulty which are directly related to learning factors may interfere with progress.

3. Physical factors:

Under this group are included such factors as health, physical development, nutrition, visual and physical defects, and glandular abnormality.

It is generally recognized that ill health retards physical and motor development, and malnutrition interferes with learning and physical growth. Children suffering from visual, auditory, and other physical defects are seriously handicapped in developing skills such as reading and spelling. It has been demonstrated that various glands of internal secretion, such as the thyroid and pituitary glands, affect behavior. The health of the learner will likely affect his ability to learn and his power to concentrate.

4. Mental factors

Attitude falls under mental factors attitudes are made up of organic and kinesthetic elements. They are not to be confused with emotions that are characterized by internal visceral disturbances. Attitudes are more or less of definite sort. They play a large part in the mental organization and general behavior of the individual. Attitudes are also important in the development of personality. Among these attitudes aw interest, cheerfulness, affection, prejudice, -open mindedness, and loyalty. Attitudes exercise a stimulating effect upon the rate of learning and teaching and upon the progress in school. The efficiency of the work from day to day and the rapidity with which it is achieved are influenced by the attitude of the learner. A favorable mental attitude facilitates learning. The factor of interest is very closely related in nature to that of symbolic drive and reward.

5. Emotional and social factors:

Personal factors, such as instincts and emotions, and social factors, such as cooperation and rivalry, are directly related to a complex psychology of motivation. It is a recognized fact that the various responses of the individual to various kinds of stimuli are determined by a wide variety of tendencies. Some of these innate tendencies are constructive and others are harmful. For some reason a pupil may have developed a dislike for some subject because he may fail to see its value, or may lack foundation. This dislike results in a bad emotional state. Some pupils are in a continuing state of unhappiness because of their fear of being victims of the disapproval of their teachers and classmates. This is an unwholesome attitude and affects the learning process to a considerable degree. This is oftentimes the result of bad training. Social discontent springs from the knowledge or delusion that one is below others in welfare.

6. Teacher's Personality:

The teacher as an individual personality is an important element in the learning environment or in the failures and success of the learner. The way in which his personality interacts with the personalities of the pupils being taught helps to determine the kind of behavior which emerges from the learning situation.

The supreme value of a teacher is not in the regular performance of routine duties, but in his power to lead and to inspire his pupils through the influence of his moral personality and example. Strictly speaking, personality is made up of all the factors that make the individual what he is, the complex pattern of characteristics that distinguishes him from the others of his kind. Personality is the product of many integrating forces. In other words, an individual's personality is a composite of his physical appearance, his mental capacity, his emotional behavior, and his attitudes towards others. Effective teaching and learning are the results of an integrated personality of the teacher. Generally speaking, pupils do- not like a grouchy teacher who cannot control his temper before the class. It is impossible for a teacher with a temper to create enthusiasm and to radiate light and sunshine to those about him. Pupils love a happy, sympathetic, enthusiastic, and cheerful teacher. Effective teaching and learning are the results of love for the pupils, sympathy for their interests, tolerance, and a definite capacity for understanding. The teacher must therefore recognize that in all his activities in the classroom he is directly affecting the behavior of the growing and learning organism.

7. Environmental factor:

Physical conditions needed for learning is under environmental factor. One of the factors that affect the efficiency of learning is the condition in which learning takes place. This includes the classrooms, textbooks, equipment, school supplies, and other instructional materials. In the school and at the home, the conditions for learning must be favorable and adequate if teaching is to produce the desired results. It cannot be denied that the type and quality of instructional materials and equipment play an important part in the instructional efficiency of the school. It is difficult to do a good job of teaching in a poor type of building and without adequate equipment and instructional materials. A school building or a classroom has no merit when built without due regard to its educational objectives and functions.

9.7. End unit assessment

- Invite all students to do an end unit assessment
- Collect students' works and mark them
- Give students immediate feedback

Possible answers for end unit assessment

1. Biological drives such as thirst, hunger and sleep impel people toward their fulfillment because their lack of fulfillment would threaten the person's survival. While social drives such as the need to achieve, possess power, and belong on the other hand are based on what people value in their interactions with others and are characterized by a complex system of components that interact in complex ways.

2. If children's needs are not met, they will experience the following problems:
   - School dropout/lateness and frequent absenteeism
   - Poor academic performance
   - Malnutrional problems/diseases
   - Juvenile delinquency
   - Death
   - Various impairments
   - Lack of life expectancy
   - Involvement in antisocial behaviors (fighting, killing, banditism, stealing, drug abuse, …)

3. As a school head-teacher, I shall do the following in order to meet my students' needs:
   - Apply and foster the program of school feeding at school
   - Have safe drinking water at school
   - Avail necessary play materials
   - Have enough toilets
   - Plant gardens and plants to facilitate respiration
   - Create a conducive environment for learning
   - Sensitize parents about meeting children's needs and rights
   - Advocate for children's whose rights are no observed
   - Invite teachers to prepare lessons that enable students interact

9.8. Additional activities

1. With two examples on each, describe biological, social and personal motives of learning

Possible solution

- **Biological motives:** These are basic needs that are essential for survival of the organism. They are inborn and biological drives that are present in all beings. Some physiological motives of learning include hunger, thirst, water, shelter, oxygen, etc

- **Social motives:** These are motives that are learned in social groups as results of interaction with the family and society. They are learned from one another. For instance, power, achievement, aggression, curiosity, affiliation, etc

- **Personal motives:** These are highly personalized and very much individualized motives. These are for example, interest, initiative, habits, drive to achieve, attitudes, etc.

2. Why do people need to change their attitudes ?

Possible solution, people need to change their attitudes due to the following reasons:

- People with a positive attitude tend to enjoy life more and are generally happier

- Negative attitudes affects others. No one wants to around a negative person. Negative attitudes can ruin relationships

- Negative attitudes produce negative circumstances. If we think negatively about a situation or a person, eventually we will give power to those thoughts

- Maintaining negative attitudes will drain you of physical energy. Becoming angry, upset or frustrated can release negative emotions that can cause tiredness and a weak immune system. Chronic stress from negative attitudes disrupts the body's hormone balance and depletes the brain chemicals responsible for feel-good emotions

- A positive attitude helps you to be an overcomer when the adversities of life come

- A person with negative attitudes blames others for their difficulties

- A positive attitude will reduce negative emotions and help recover from negative experiences like trauma and loss very quickly

1. Assess the relationship between physiological motives and learning.

- Hungry students cannot learn (effective learning depends on the quality of meals that children take both at home and at school). Poor nutrition leads to malnutritional diseases which handicap learning

- Children who don't get enough time for sleeping (of rest) sleeps during classes. These children cannot properly follow the teacher.

- Homeless children. It is difficult for these children to learn well because they live in the conditions that are not facilitating them to review their lessons as others do. Hence, poor performance

- Children with problems of respiration cannot learn well

- Children without safe drinking water both at home and school will fail to learn

- Non-vantilated classrooms will not facilitate students learning

- Schools with poor hygiene and sanitations will not lead to smooth education

1. Apart from physiological, social and personal motives, find and describe other motives of learning

- **Psychological motives of learning** like motivation which is internal process that activates, guides and maintains behavior overtime. And this motivation is in two types namely **intrinsic motivation** wich efers 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. And **extrinsic motivation** which 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.

  In addition to motivation, there other motives (factors) of learning such as attention, intelligence, good will, memory, sensation and perception.

10.1. Key unit competence

Provide opinions on views laying in theories of learning

10.2. Prerequisite

Students will learn better theories of learning if they have understanding on key concepts on psychology such as stimulus, learning, and behaviour, introduction to learning psychology, importance of psychology in our community.

10.3. Cross-cutting issues to be addressed

Peace and value education

During behaviourism theories of learning, peace and value education will be addressed in operant conditioning where it comes to reinforcement and punishment. In the conventional learning situation operant conditioning applies largely to issues of class and student management, rather than to learning content. For example, if a teacher is using reinforcement or punishment, that one is trying to increase or decrease behaviour.

Gender education

In each and every activity, teacher should make sure that there is an involvement of both girls and boys. For example, a teacher can create a reinforcement program in which the entire class or several large groups of children (girls and boys) must depend on each other's good behaviour to receive positive reinforcers and while establishing classroom rules and routines, teacher take gender responsive into consideration.

Inclusive education

Inclusive education as crosscutting issue will be addressed in this unit of learning theories, especially in cognitivism theory where 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 behaviour. Therefore, the teacher will address inclusive education by referring to how children may perceive, interpret, and mentally manipulate information they encounter in the environment.

10.4. Guidance on introductory activity

- Invite students to read theorists factsheets in educational psychology folder or on internet
- Ask student teachers to answer questions, after reading.

Introductory activity

Possible answers to introductory activity

These theorists have impact on teaching and learning. For example:

- Behaviourism focuses on observable changes in behaviour; it views the teacher's role as providing information and supervising practice, it describes learning as the result of stimulus-response actions and it uses incentives and rewards for motivation.

- Cognitivism compares the mind to a computer; it focuses on mental processes of sensory input, attention, working memory, rehearsal, encoding, long-term memory, retrieval, and forgetting, it recognizes the brain's limited capacity for memory, it emphasizes using visual strategies to aid memory, it recommends integrating reading and writing, it explains that attaching meaning to information will help it be retained (better than just memorizing), it views reading and writing as meaning-making processes.

- Constructivism; it describes learning as the active construction of knowledge, it recognizes the importance of background knowledge, it views learners as innately curious, it advocates collaboration, not competition, it suggests ways to engage students so they can be successful, it emphasizes the role of the teacher as a guide.

- Social Learning Theory emphasizes the importance of language and social interaction on learning; it views observation of models as key; it explains that students learn best through authentic activities; it describes the teacher's role as scaffolding students' learning, it advocates culturally responsive teaching; it challenges students to make their own decisions and self-monitor.

10.5. List of lessons

#	Lesson title/sub heading	Learning objectives	Number of periods
1	Key terms related to theories of learning	Define different terms related to theories of learning	3
2	Insight learning theory	Describe the key points of insight learning theory and its implications in individual's daily life	4
3	Behaviorism learning theory	Explain behaviorism learning theory and its implication in individual's life.	4
4	Cognitive learning theory	Explain cognitive learning theory and its implication in individual's life.	4
5	Constructivism learning theory	Explain constructivism learning theory and its implication in individual's life.	4
6	Social constructivism theory	Explain social constructivism learning theory and its implication in individual's life.	3
7	Social learning theories	Explain social learning theory and its implication in individual's life.	4
8	Connectivism lerning theory	Explain connectivism learning theory and its implication in individual's life.	3
9	Compare different theories of learning	Compare and contrast different theories of learning	3
	End unit assessment		2
	Total number of periods		32

Lesson 10.1: Key terms related to theories of learning

a) Learning objective

Define different terms related to theories of learning

b) Teaching resources

Handouts and videos about different theories of learning, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists, internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better key terms related to theories of learning: since they have the understanding on other key concepts related to psychology, school of psychology, and different psychologists. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 10.1

- Invite students to read individually the flashcards, books and research of different key terms
- Let them work in pairs to share with the classmate what they have read and searched.
- Have some pairs to make presentations

Suggested Answers to activity 10.1

The possible answers are in the content

Give supplementary needed explanations on terms related to theories of learning

e) Application activities 10.1

Suggested Answers to application activity 10.1

Learning theories are useful because they help teachers understand how their students learn. Teachers can develop more comprehensive learning strategies and assist students in achieving academic success by utilizing various learning methods.

Learning theories can influence all aspects of learning, including curriculum development in formal education and how people engage in self-learning.

Although understanding various types of educational theories is especially important for aspiring and active teachers, understanding some of them can help anyone learn more about themselves and maximize their learning potential.

Lesson 10.2: Insight learning theory

a) Learning objective

Describe the key points of insight learning theory and its implications in individual's daily life

b) Teaching resources

Handouts and videos about insight learning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better insight learning theory since they have the understanding on key terms related to theories of learning, different theorists, and school of psychology. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 10.2

- Invite student teachers to read individually statement give and reflect on them
- Work in pairs to share with the classmate.
- Have some pairs to make presentations

Suggested Answers to activity 10.2

1. If someone is in the problematic situation; try to find solutions and sometimes solutions may come randomly.

2. These sudden realization of solutions to problems called insight learning.

Give supplementary needed explanations   related to insight learning theory.

e) Application activities

Suggested Answers to application activity 10.2

1. See the content above

2. For example, when a person is taking a test and come across a problem that he/she cannot solve. He/she sits there for a few seconds and rack the brain for any possible ray of light that will help him or her get to the solution.

Lesson 10.3: Behaviourism learning theory

a) Learning objective

Explain behaviourism learning theory and its implication in individual's life.

b) Teaching resources

Handouts and videos about behavioural learning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better behaviourism learning theory: description, criticism of behaviourism and examples ways of incorporating behaviourism theory since they have the understanding on classical conditioning, operant conditioning, key concepts related to psychology such as stimulus, learning, response, perception and sensation. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 10.3

- Invite students to read individually the scenario and work in pairs to share with the classmate.
- Have some pairs to make presentations

Suggested Answers to activity 10.3

The boss would like to motive his employee and this impacted on behavioural changes through the process of conditioning. And also this is an example one shows positive reinforcement for exceeding customer expectations.

Give supplementary needed explanations   related to behaviourism learning theory.

e) Application activities

Suggested Answers to application activity 10.3

Possible answers: please see the content

Lesson 10.4: Cognitive learning theory

a) Learning objective

Explain cognitive learning theory and its implication in individual's life.

b) Teaching resources

Handouts and videos about cognitive learning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better cognitivism theory of learning, since they have the understanding on key concepts related to educational psychology such as stimulus, learning, response, perception and sensation. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 10.4

- Invite students to work in pairs and discuss the capacity of recalling information and explain why some students recall more information than others; and then discuss what to do to improve that learning
- Have some pairs to make presentation

Suggested Answers to activity 10.4

- Students have different ability to acquire and retain what they have learned. They differ in terms of mastering and recalling information. Individuals are different that is why there is no single learning approach that works for everyone. Teacher should use different approaches to help all learners learn appropriately.
- In order to improve learning; students must be prepared for learning, must get and stay organized in order to learn, must be on time, during learning they must take good notes, establishing their Learning Style is very important, ask questions where necessary, and complete all assignments on time.

Based on the students' answers, explain the cognitive learning theories

e) Application activities

Find the answer in the lesson content, in student teachers textbook.

Lesson 10.5: Constructivism learning theory

a) Learning objective

Explain constructivism learning theory and its implication in individual's life.

b) Teaching resources

Handouts and videos about constructivism learning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better constructivism theory of learning because they have the understanding on cognitivism theory of learning. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 10.5

- Invite student teachers to observe individually the picture and work in pairs to share with the classmate referring to what is happening on the picture
- Have some pairs to make presentations
- Facilitate them if necessary

Suggested Answers to activity 10.5

1. a) There students who are learning and one student is explaining to other students.

   b) This activity of learning together is very important, because student learn better if they are learning together.

2. As we have seen in previous topics, this example can be associated with other examples that are going to be given. But let first come back to the meaning of assimilation and accommodation. The assimilation is the cognitive process of associating new information to what is already known or the arrangement of new knowledge inside our heads beside what we know. For another example let's say the child has only seen a cow in picture books. Seeing a cow in person gives them an additional sense of what a cow looks like and how it behaves. This will be "assimilated" into the schema that is the child's recognition of the cow. In the process of accommodation, when taking new information into account by modifying what we already know. The child will attempt to resolve this disequilibrium through a process called "accommodation." They will compare and contrast their concept of a cow with the mystery animal currently in front of them. They will notice that though both a cow and this animal share many aspects (four legs, eating grass) they contrast in notable ways (different sounds, different coats.) Though they may not have a name for it, they will conclude that, despite some similarities, this animal is not a cow.

– Compliment students' discussion by explaining cognitive theory

e) Application activities

Suggested Answers to application activity 10.5

Constructivism sees each person as a unique individual with unique needs and complex backgrounds; these people must be helped to achieve their goals. The individual's uniqueness and complexity encourage professional development to use it as an integral part of the learning process. Individual experience should be used in the teaching and learning process, according to professional development. People are challenged at or near their current level of development. People gain confidence and motivation to take on more difficult challenges after successfully completing difficult tasks. Vygotsky referred to it as the zone of proximal development (ZPD) (Vygotsky, 1978). Teachers should promote and accept students' autonomy and initiative. In addition to manipulative, they should try to use raw data and primary sources

Lesson 10.6: Social constructivism theory

a) Learning objective

Explain social constructivism learning theory and its implication in individual's life.

b) Teaching resources

Handouts and videos about social constructivism learning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists (refer to Help a Child resource file), internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better social constructivism theory of learning as they have the understanding on constructivism theory of learning. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 10.6

- Invite students to read individually the scenario and work in pairs to share with the classmate.
- Have some pairs to make presentations

Suggested Answers to activity 10.6

a) After explanation, this primary physical education teacher should support her students during playing the game, he supported in theory but not in practical skills.

b) After showing positions in playground, what is the next is to do the same as practical skills.

- Continue by illustrating social constructivism with examples.

e) Application activities

Suggested Answers to application activity 10.6

Selena needs More Knowledgeable Others (MKO), which 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. Selena needs this for better success in playing trumpet, his zone of actual development (ZAD), which is the ability that she already possesses to perform this task at a certain degree, is that play the trumpet with basic notes. But his zone of proximal development (ZIP) is where she has trouble with some of the high notes. That is why she needs guidance and encouragement from adults such as her teacher or more skilled children.

Lesson 10.7: Social learning theories

a) Learning objective

Explain social learning theory and its implication in individual's life.

b) Teaching resources

Handouts and videos about social learning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists, internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better social learning theories because they have the understanding on key concepts related to educational psychology such as stimulus, learning, response, perception and sensation. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 10.7

- Ask students to comment on Rwandan proverb" Kora ndebe iruta vuga numve"
- Invite them to share their idea

1. People learn through looking, seeing, hearing, and doing by experience, observing and imitating models and other people.

2. This Rwandan proverb reflect it light to what we observe and imitating them, if some is talking without doing, observation and imitations can occur difficultly.

Continue with deep explanation of social learning theory

e) Application activities

See the answer in the content.

Lesson 10.8: Connectivism learning theory

a) Learning objective

Explain connectivism learning theory and its implication in individual's life.

b) Teaching resources

Handouts and videos about connectivism learning theory, handouts with classroom-based strategies that relate to this theory, fact sheets about different theorists, internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will learn better connectivism learning theory because they have the understanding on key concepts related to ICT tools, internet, and electronic media. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 10.8

- Invite students to read individually statements and reflect on them
- work in pairs to share their reflections
- Have some pairs to make presentations
- Support students while generating ideas.

It is true that this is an example of creating a network where connectivism proposes that students combine their thoughts, theories, and general knowledge in a useful way and is based on the idea that digital technology connects people and opens up new learning opportunities.

– Continue wit deep explain of connectivism theory.

e) Application activities 10.8

Answers in Student book

Lesson 10.9: Comparison of theories of learning

a) Learning objective

Compare and contrast different theories of learning

b) Teaching resources

Handouts and videos about all learning theories, handouts with classroom-based strategies that relate to learning theories, fact sheets about different theorists, internet, flash cards, flip charts, wall charts with graphics to represent learning theories

c) Prerequisites/Revision/Introduction

Students will compare better different theories of learning because they have the understanding on key ideas which are in these learning theories. The knowledge about different theorists who contributed in theories of learning will help them to understand this lesson.

d) Learning activities

Activity 10.9

- Invite students to work in pairs, to discuss the statement given in learning activity
- Let them share with the classmate.
- Have some pairs to make presentations

Yes, there are no good or bad learning theories because many factors will influence their application, including the type of learner, the content, and the learning objectives and goals.

e) Application activities

Suggested Answers to application activity 10.9

Some similarities between the social learning theory, theory of reasoned action, self-regulation theory, and stages of change model include a focus on human behavior, individual willingness, and an emphasis on consequences. The theories and models support the significance of good human behavior. The theories and models explain how an individual can learn to perform desired behaviors. According to the theories and models, individuals must be willing to follow their provisions in order for them to be effective. Furthermore, the theories and models state that a person must consider the consequences of actions before carrying them out. The consequences of behaviors are the main factors that determine individual learning and behavior, according to theories and models. As a result, the theories and models show that people act based on the behaviors observed in the aftermath.

Although there are some similarities between the theories and models, there are also some differences. While the social-learning theory emphasizes the importance of observation in learning, the theory of reasoned action states that a person's learning process is determined by the connection between attitude and behavior. The social-learning theory approaches and discusses the learning process through observation. The theory of reasoned action, on the other hand, uses the link between attitude, expectations, and behavior to elaborate its essence in the learning process (Brannon & Feist, 2010). Self-regulation theory, on the other hand, differs in the approach it takes when discussing behavior. According to the theory, in order to learn and change their behavior effectively, people must control their impulses and manage their desires. As a result, the stages of change model assesses a person's readiness to change and adopt desired behaviors. As a result, there are differences between the theories and models, which primarily revolve around the approaches used

10.6. End unit assessment

- Invite all students to do an end unit assessment
- Collect students' works and mark them
- Give students immediate feedback

End unit assessment

Answer:

Learning theories are theories whose primary goal is to connect research and education. Some theories are more oriented toward basic learning, while others are more oriented toward applied learning, and within that, in various content areas; some emphasize the role of development, while others are strongly linked with instruction; and some emphasize motivation. For example, according to the behaviorist theory of learning, learning entails the formation of associations between stimuli and responses. As a result, educators should create an environment conducive to learning by organizing activities that are appropriate for the setting. Educators must also assist students in applying what they have learned. Learning needs to be reinforced. Teachers must reward any desired learning behavior. Teachers, on the other hand, should use punishment to weaken the learned undesirable behavior. Educators must recognize that professional development has some advantages, such as the ability to assist learners in learning. For the cognitivism theory of learning, educators should organize their teaching materials so that the concepts contained within them can be easily acquired and processed by the minds of their students. Using a variety of teaching techniques will assist educators in leading students to investigate concepts from various perspectives. The current lesson builds on the previous one. Teachers must provide learners with exercises and practice. This is because students learn best when they do exercises. Exercises aid in the incorporation of information into the mind. Courses and topics should be divided into subparts that students can easily understand.

The theory depicts teachers' roles in properly organizing the process of teaching and learning in order to ensure that information processing runs smoothly. The theory also suggests that curriculum be organized in such a way that the sequence of materials reflects the concept of repetition, so that the content at one level is built on the previous one. The theory also specifies the types of knowledge and how learners can instill them.

These are procedural knowledge and declarative. **For constructivism theories** of learning; Constructivism views each learner as a unique individual with unique needs and complex backgrounds, teacher must help these students to attain their goals. Uniqueness and complexity of the learner encourages the teacher to utilize it as an integral part of the learning process. Professional development should consider the important of using learners experience in teaching and learning process. Learners are challenged within close proximity to their current level of development. By experiencing the successful completion of challenging tasks, learners gain confidence and motivation to embark on more complex challenges Vygotsky call it as zone of proximal development(ZPD) (Vygotsky, 1978). Teachers should encourage and accept student autonomy and initiative. They should try to use raw data and primary sources, in addition to manipulative, interactive, and physical materials So that students are put in situations that might challenge their previous conceptions and that will create contradictions that will encourage discussion among them. In our teaching therefore we need to use some activities which originate from our environment so that learning can be meaningful to students. **For theories of learning**; Learning focuses on the need of the learner and human development. Learning which lead to acquiring personal emotional and satisfaction e.g. imitating some body's style of dressing, talking, acting etc. Teacher must plan teaching materials which help student to develop individual skills and unlearn what is not good which was learned some time ago e.g. during child hood time.

10.7. Additional activities

Remedial activities

1. In Pavlov's experiments with dog, food was the_____.
a) Conditioned response
b) Conditioned stimulus
c) Unconditioned stimulus
d) Unconditioned response

2. What is the difference between a child's capacity to perform a task independently and the potential to perform it with assistance known as?

   a) Zone of proximal development

   b) Social learning dissonance

   c) Heteronomy-autonomy difference

   d) Scaffolding discrepancy

3. One of these theories put emphasize on spoon feeding because the learner is considered as an empty vessel

   a) Constructivism

   b) Social contructivism

   c) Behaviourism

   d) Social learning

4. All the following are the characteristics underlining the constructivist learning environment except one:

   a) It provides multiple representations of reality in order to avoid oversimplification and represent the complexity of the real world.

   b) It discourages thoughtful reflection on experience.

   c) It emphasizes knowledge construction instead of knowledge reproduction

   d) Scaffolding discrepancy

5. In Vygotsky's theory of learning, much important learning by the child occurs:

   a) Through social interaction with parents

   b) Through social interaction with skilful tutor

   c) Through imitation

   d) When a conditioned stimulus is presented without an accompanying stimulus,

6. _____ will soon take place.

   a) generalization

   b) discrimination

   c) extinction

   b) aversion

7. Learning by imitating other's behaviours is called _____ learning. The researcher best known for this type of learning is _____
   a) Secondary; Skinner.
   b) Observational; Bandura
   c) Secondary; Pavlov
   d) Observational; Watson

8. We note that children often do not do what adults tell them to do, but rather what they see adults do. According to Bandura's they learn:
   a) Vicariously
   b) Through instrumental conditioning
   c) By modelling
   d) Only by listening

9. The highest and most consistent rate of response is produced by a _____ schedule.
   a) fixed-ratio
   b) variable-ratio
   c) fixed-interval
   d) variable-interval

10. The following are key processes Vygotsky's theory of cognitive development:
    a) Schema, assimilation, accommodation, operations, conservation,
    b) Zone of proximal Development, language, dialogue, tools of the culture
    c) Transforming, organizing, and reorganizing knowledge
    d) All the above

QUESTION: Match the following

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 other 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 occur 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 modeling what they observe.
5. Observational learning	e. Is the sudden discovery of the solution to a problem without going through a series of progressive trial and error?

Possible answers: 1;b, 2;a, 3;c, 4;e, 5;d

Question 1: The theorists are linked to different learning theories. Vygotsky and Cognitive Developmental Theory, Piaget and Social Developmental Theory, Is this true or false? Why?

Answer

False, because Vygotsky's theory is related to social constructivism which 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. According to Vygotsky, much important learning by the child occurs through social interaction with skilful teacher. The teacher may model behaviour 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.

REFERENCES

1. Cacioppo, J. T. & Freberg, L. A. (2013). Discovering psychology. The science of mind. Briefer version. Belmont. Wodsworth, Cengage Learning.

2. Clark RE. Classical Conditioning and Brain Systems: The Role of Awareness. Science. Published online April 3, 1998:77-81. doi:10.1126/science.280.5360.77

3. Fryling, M. J., Johnston, C., & Hayes, L. J. (2011). Understanding observational learning: an interbehavioral approach. The Analysis of verbal behavior, 27(1), 191–203. https://doi.org/10.1007/BF03393102

4. Grohol, J.M. (2016). 15 common defense mechanisms. Retrieved 21 January 2023 from file:///C:/Users/pc/Downloads/Work%20Sheet%20 3%20%20Defense%20Mechanisms%20article.pdf

5. Hansell, J., Ehrlich, J., Katz, W. & Minter, K. (2008). Psychoanalysis and psychoanalytic psychology. A modular unit lesso plan/teaching resource for high school psychology teachers. Michigan : APA. https://www.apa.org/ed/precollege/topss/lessons/psychoanalysis.pdf

6. Harris B. Whatever happened to little Albert? American Psychologist. Published online 1979:151-160. doi:10.1037/0003-066x.34.2.151

7. Heisier, W. J. (2008). Psychometric of multidimensional data analysis in the Netherlands: From Gerard Heymans to John Van de Geer, 4(2),1-25.

8. Horney, K. (1937). The neurotic personality of our time. New York: Norton.

9. https://ca.indeed.com/career-advice/career-development/behavioural-learning-theory

10. KIE (2008). Module 2. Foundations of educational psychology. Kigali: Author

11. Kimmel HD. Inhibition of the unconditioned response in classical conditioning. Psychological Review. Published online 1966:232-240. doi:10.1037/h0023270

12. Lebowitz, S. (2016). The 'Big 5' personality traits could predict who will and won't become a leader. Busines Insider. Retrieved from http://www.businessinsider.com/big-five-personality-traits-predict-leadership-2016-12.

13. MacCrae , R. R., & Costa, P. T. (1985). Updating Norman's "adequacy taxonomy": Intelligence and Personality dimensions in natural language and in questionnaires. Journal of Abnormal and Social Psychology, 49, 710-721.

14. Maren S. Neurobiology of Pavlovian Fear Conditioning. Annu Rev Neurosci. Published online March 2001:897-931. doi:10.1146/annurev. neuro.24.1.897

15. Maslow, A. H. (1968). Toward a psychology of being (2nd ed.). New York: Van Nostrand Reinhold.

16. Maslow, A. H. (1970). Motivation and personality (2nd ed.). New York: Harper & Row.

17. McCrae, Robert R., and Paul T. Costa Jr. (2008). The Five-Factor Theory of personality. In Handbook of personality: Theory and research. 3d ed. Edited by Oliver P. John, Richard W. Robins, and Lawrence A. Pervin, 159–181. New York: Guilford.

18. Myers, D. G. & Dewall, C.N. (2017). Psychology in everyday life (4th ed.). New Yourk: Worth Publishers.

19. Norman, W., T. (1963). Taward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. Journal of Abnormal and Social Psychology, 66, 574-583.

20. REB. (2020). Foundations of Education. Student-Teacher's book for TTC. 3. Option: ECLPE, SSE, SME and &LE. Experimental version. Kigali: Author.

21. Rogers, C. R. (1961). On becoming a person: A therapist's view of psychotherapy. Boston: Houghton Mifflin.

22. Rogers, C. R. (1980). A way of being. Boston: Houghton Mifflin.

23. Rust, J. (1999). Discriminant validity of the "Big Five" personality traits in employment settings. Social Behavior and Personality: An International Journal, 27(1), 99-108.

24. Schultz, D. P., & Schultz, S., E. (2013). Theories of personalities. Florida: Wadsworth Cengage Learning.

25. Sibi, K. J. (2020). Sigmund Freud and psychoanalytic theory. Langlit. ISNN2349-5189, p. 75-79.

26. Vandenberg, S. G. (1966). Hereditary factors personality traits (as measured by inventories). Research report from Louisville twin study, child development unit, department of Pediatrics. University of Lousville.