Tutorial Letter 102/3/2018

Learning and Teaching Strategies in the Adolescent Years

EDT1602

Semesters 1 & 2

Department of Psychology of Education

IMPORTANT INFORMATION:

This tutorial letter contains important information about your module.

CONTENTS

1 INTRODUCTION

Dear Student

Welcome to the module in *Learning and teaching strategies in the adolescent years*. This course has been updated to reflect current practices. Use information in this tutorial letter as a study guide

According to Killen (2015:31), teachers need the following forms of knowledge to enable them to teach effectively:

- Knowledge about learning
- Knowledge about teaching
- Knowledge about content

These three forms of knowledge overlap to create **pedagogical content knowledge (Shulman 1987).**

With this in mind, this course focuses on two essential components of the teaching-learning situation:

- getting to know the adolescent developmentally (knowledge about learning)
- learning and teaching strategies in the adolescent years (knowledge about teaching)

These components form a unit and should always be viewed in relation to each other.

Teaching and learning in the 21st century requires a set of skills, tools and thinking that is suited to educating learners in the information era. Similarly, learners need to be equipped with the necessary knowledge and competencies to participate and contribute confidently in the 21st century.

Education in the 21st century should foster learning that encompasses a culture of human rights for all and promotes lifelong learning and values based on tolerance, respect and responsibility, among others.

Teachers should aim to equip all learners with the knowledge, competencies and orientation they need for success in both their personal lives and careers. This should help learners to become competent, contributing citizens who are critical and creative in their thinking.

We hope that this course will help you to achieve these aims.

We trust that you will enjoy this module and we wish you all the best!

Your lecturers

PS: In keeping with the increasing sets of information emerging in the information era, the prescribed book contains references to different theories, viewpoints and propositions made by scientists and

academics alike. You will notice that these authors always reference and acknowledge the source of their contributions. Please do the same whenever you refer to their ideas in your assignments.

2 STUDY MATERIAL

The study material for this module comprises the following:

1. Tutorial Letter 101 – This contains an introduction to the module, administrative matters and the assignments.
2. Tutorial Letter 102 – This contains the course outline and additional study material.
3. Prescribed book: Killen, R. 2015. *Teaching strategies for quality teaching and learning.* 2nd edition. Juta. Cape Town

3 ORIENTATION AND STUDY GUIDELINES

Teaching and learning form a single integrated concept and the value of teaching can, therefore, be found in the type of learning it encourages. As mentioned previously, teachers need to have knowledge of three essential components. These components overlap to create knowledge that is necessary for effective teaching and learning to occur across and within particular disciplines. The objective of this module is to provide two of these components (i.e some knowledge about learning and some knowledge about teaching) in the context of teaching adolescents, as indicated below:

Components of teaching	**This module presents the following:**
Knowledge about learning	an understanding of adolescents in the context of their development and learning
Knowledge about teaching	learning and teaching strategies in the adolescent years
Knowledge about content	*Note: This knowledge relates to your own subject and is NOT presented in this course.*

This module reflects a learning-centred and student-centred approach to encourage learners to think for themselves. It is based on the belief that all individuals can and want to learn, and that the role of the teacher is critical in the creation of an optimal learning environment.

This tutorial letter (including module content) is structured as follows:

Section	Topic	Source
PART I	Understanding the adolescent: developmental theories	Tutorial Letter 102 (this one) **Study units 1, 2 and 3**
PART II	Aspects of quality learning and teaching	Prescribed book **Chapters 1, 2, 3, 4, 5; 15 and Appendix**
PART III	Teaching and learning strategies	Prescribed book **Chapters 6, 7, 8, 9 and 10**

4 THE PURPOSE OF THIS TUTORIAL LETTER

The purpose of this tutorial letter is as follows:

- To provide essential information **(particularly part I as a whole)** not contained in the prescribed book. This information should be studied from this tutorial letter and additional resources uploaded on myUnisa during the semester, since assignments and examination questions will be based on these sets of information. If necessary, you may read more in other sources to supplement your understanding. **(NB: Additional resources will be uploaded on myUnisa when necessary.)**

- To demarcate the content of the module and highlight examinable content. The whole of part I should be studied. Topics for additional reading and your own further research will be indicated under the subheading: **Additional reading.**

- To indicate **learning outcomes** for the different study units in part I, as well as the generic learning outcomes for part III. The learning outcomes for the different chapters in part II are indicated in the prescribed book under the paragraph that starts, “When you have mastered the ideas in this chapter, you will be able to:...”

- To enrich your understanding of certain concepts by sometimes indicating **cross references** to other sources so that you can supplement your reading and integrate different ideas. **At the end of each chapter in the prescribed book**, a list of websites is given that you may consult to expand your knowledge base and explore a range of sources.

It is best to work through this tutorial letter systematically, from beginning to end, so that you get an overview of the module.

At the end of each study unit (in part I) and chapter in the prescribed book (parts II and III), there are questions and tasks to:

- consolidate your knowledge
- direct you to important aspects in the study unit or chapter
- give you an idea of the kinds of questions you can expect in assignments and the examination (**Please do not submit the answers to these questions for assessment; they are self-assessment questions. Only the assignments in Tutorial Letter 101 should be submitted.)**

PART I

UNDERSTANDING THE ADOLESCENT: DEVELOPMENTAL THEORIES

The aim of part I of this tutorial letter is to give an overview of human development, with particular emphasis on the adolescent years. The adolescent should be viewed as a total person in the context of physical, emotional, cognitive and social development. This information is referred to, but not discussed, in your prescribed book; that is why it has been included in this tutorial letter.

Part I comprises three study units that cover some developmental and learning theories. In this part, the basic ideas of landmark scientific developmental theories are introduced. These landmark theories have given rise to other learning and teaching theories and strategies. However, it is equally important to be aware of the criticism levelled against these landmark scientific studies and theories. A good scientific theory is one that generates new research, as these theories have done. Over the last 50 years, some of these theories have been either challenged or expanded, as further research has led to the emergence of new findings. Learning and teaching strategies have consequently changed and developed to meet the continually evolving needs of people and environments throughout the ages.

Please note that even though you are expected to study all the stages of the developmental theories covered in the study units, you should always consider the implications these may have for teaching or working with adolescents, in particular. Your assignment and examination questions will focus mainly on the basic tenets of these theories, as well as the features of development that take place during the adolescent years. It is, however, necessary to be familiar with the background to all the other developmental stages covered by each developmental theory.

STUDY UNIT 1: COGNITIVE LEARNING THEORY

Introduction

Most developmental theories have in common the idea that children are in the process of developing towards a situation or level that is termed "adulthood". This applies to their intellectual, emotional and social development. Thus it would seem as if, during childhood, individuals are in a process of education directed at reaching adulthood. Using Piaget's theory as an example, if we consider the level of intellectual development of a five-year-old, who is capable of pre-operational thought, this pre-operational thought would be considered incomplete if we regarded formal operational thought as the goal of intellectual development. According to this view, pre-operational thought is just a means to an end, namely formal operational thought.

The educational implication of this view is that we ought to provide children with learning activities that fit their level of development. For instance, we cannot teach concepts such as poverty, love and respect to a child who has not yet reached the level of abstract thought.

Nevertheless, it is well-known that babies and young children possess an exceptional ability to learn

languages. We know how difficult it is for adults (who have supposedly completed their intellectual development) to begin learning a new language. This observation appears to overturn the whole argument and forces us to concede that, although the intellectual capabilities of a baby or young child are very limited compared with those of an adult; there may be complex tasks that the young child can master more easily than an adult. This interesting ability is known as the critical development period, which we will discuss later on.

So while some developmental theories regard children's physical, emotional, social and spiritual development as incomplete because they are in the process of developing towards adulthood, an alternative view is that, as children develop, developmental tasks are adjusted to whatever the child needs at that specific time to function optimally. The new-born baby's sense of smell and sucking ability help her to recognise her mother and to obtain nourishment. The baby is thus able to function optimally without using language. Her emotional need at this stage is to be as near to her caregiver as possible. Owing to her inability to move around, it is therefore necessary for her to keep the caregiver as close to her as possible.

This viewpoint also implies that children do not necessarily have to follow one route of development as regards language, socioeconomic situation, culture, and so on, but that various routes are possible. Thus individual children may take various routes to achieve developmental competence at different periods of their lives; furthermore, the route they choose may be influenced by their different abilities and personalities and by niches or periods in their development.

Learning outcomes

After you have worked through study unit 1, you should be able to explain

- **the complex and multifaceted dimensions of human development**
- **the ways in which development affects learning, focusing on adolescents, in particular**
- **the effect of life conditions on development**
- **why the learning process requires different teaching strategies at different levels of development**

QUESTIONS TO CONSIDER

How do individuals' cognitive abilities develop?

What is the social basis for cognitive development?

1.1 PIAGET'S THEORY OF COGNITIVE DEVELOPMENT

Piaget believed that children pass through different phases of intellectual development. Their progress through these phases is influenced by those people who are on hand to teach them, as well as by the child's inherent potential for learning. What Piaget meant by development in phases was not that all children reach a certain phase at a specific age, but that certain intellectual levels can be clearly distinguished. All children progress through all four stages of development, but the pace at which they progress may vary.

According to this theory, one phase must be completed before it is possible to pass on to the next.

Before we discuss the phases, we need to explain some concepts relating to this theory.

1.1.1 Concepts related to this theory

1.1.1.1 Schemas

We start learning from an early age. We remember what we have learnt by storing it in our brain so that we can use it again later. Everyone thus has a certain amount of organised information, or a schema of information, which is kept in readiness for later use. Because the human brain is so complex and there is so much to learn, everyone has a number, or even a network, of schemas. We could call this the intellectual or cognitive structure. Because we are continually learning new things, we always try to fit the new information into the relevant schema. It would not make sense to store all the new information that we learn in a haphazard way; such a "filing system" would lead to a chaotic intellectual structure. When children come across a new object or idea, they try to understand it and fit it in somewhere among their existing information.

For example, Aziza invited Patricia, a friend from Gauteng, to visit her in the Cape. When Patricia arrived, the sun was shining brightly and there were no clouds covering Table Mountain. The next day, Aziza showed her friend a few places in the city. They walked about on the Grand Parade, visited the National Cultural History Museum and, naturally, went up Table Mountain. Back home, Patricia told her family about the Cape: "The weather is perfect, the sky bluer than here and there is not the slightest wind. The mountain is in the middle of the city and from it you can see the sea. The city is old and all the streets run downwards. The high mountains made me feel anxious because you can't see past them. There is a garden and a museum and people sell things at a market."

Patricia, who had never been to the Cape before, has stored everything she saw in the Cape under a new schema entitled "Cape". The information she gives is correct, but Capetonians will smile at her innocence. Patricia does have a schema of the Cape, but it contains very little information. She has no idea how fickle the weather in the Cape can be, and she was there for too short a time to get to know the people or to get to know the Cape as its inhabitants know it.

When we consider the issue of ethnocentrism, we have to wonder if our critical judgement of others who differ from us could be based on such incomplete schemas. We use only the information at our disposal when we reason, but often think that we have the whole truth.

The schemas of young children are often incomplete. It is the task of educators to talk to children, show them things and give them names so that the children have a word to which they can attach a meaning and then store that meaning. Not only do they need to see things, but also to touch, smell and listen so that their whole perceptual field (all their senses) is involved in the learning process. If a three-year-old boy has a schema for "motor cars" and he sees a train for the first time, he needs to have it explained to him that trains run on rails; he needs to hear the train whistle, see how the train pulls several coaches, and so on, so that he can understand that the train is not a motor car and can establish a new schema

for "trains" in his intellectual structure. This brings us to the way in which the establishment of new schemas takes place.

1.1.1.2 Assimilation and accommodation

Two intellectual tasks are involved here. New information can be fitted into an existing schema, or it may be necessary to adjust the existing schema or form a brand-new schema.

When a little girl, for example, already has a schema for "birds" and sees a new kind of bird, the information on the new bird can still be fitted into the existing schema. This is called **assimilation.**

Every schema works like a theory. The person has certain information and harbours certain expectations of the object to which the schema relates. The little girl in our example harbours the expectation that all birds can fly. So when she encounters a fowl and an ostrich, she is forced to adjust her theory about birds, because fowls and ostriches cannot fly, although they have all the other characteristics of birds. When the schema has to be adjusted, such as to make allowance for fowls and ostriches, which are birds, but cannot fly, **accommodation** takes place.

1.1.1.3 Equilibrium

Equilibrium means balance. When children are busy learning new things and come to the realisation that existing schemas will have to change, they exist for a time in a situation of disequilibrium or imbalance. Because people are motivated from birth to learn and to get to know more, they want to eliminate this imbalance or disharmony. Therefore, when a person encounters a problem, they will continue to think about it until they have understood and solved it. In the process of learning, a person thus moves continually from a situation of disequilibrium to one of equilibrium.

1.1.2 The four stages of intellectual development according to Piaget

Sensorimotor stage	0–2 years
Pre-operational stage	2–6 years
Concrete operational stage	7–11 years
Formal operational stage	12 years and older

1.1.2.1 The sensorimotor stage (from birth to about 2 years)

The physical development of the child is not covered in this module, but you could do supplementary reading on this topic in conjunction with this section for a deeper understanding of the child's global development. You should particularly keep the following points in mind during the discussion of the infant's intellectual development:

- Infants' gross motor skills develop quickly during the first year, culminating in the ability to start walking at the age of 14 or 15 months.

- Fine motor skills also develop quickly during this period, so that by the middle of their first year, babies can already coordinate both hands to pick up and manipulate objects.

- Perceptual skills are already functioning shortly after birth and improve quickly during the first year (Kail 1998:144).

Because babies develop so quickly, both physically and intellectually, Piaget distinguishes six substages in this developmental phase. The various ages that are indicated may vary from baby to baby.

Sub stage 1: The practising of reflexes (from birth to approximately 1 month)

We know that new-born babies already possess certain reflexes, such as the sucking reflex. As with any motor skill, this reflex improves, over time, so that the older baby can suck more strongly than the new-born baby.

Sub stage 2: Adaptation of reflexes (from approximately 1 to 4 months)

During this period, reflexes become used as a means to achieve a goal. Whereas the baby first sucked its thumb purely as a reflex action, now it learns to bring the thumb to its mouth in order to repeat the satisfying sucking sensation. Kail (1998:146) terms such an action a "primary circular reaction".

Sub stage 3: Taking notice of objects separate from the body (from approximately 4 to 8 months)

The primary circular reaction, which was primarily focused on the baby's body, such as sucking its thumb and grasping its own limbs, is now followed by an interest in objects. Objects are grasped and first of all brought to the mouth, where the primary need for sucking is still centred. Whereas the baby performed the primary circular reactions with its own body, now it begins to do this with objects. This is called the secondary circular reaction and is characterised by more purposeful actions than in sub stage 2. These actions are aimed at exploring the world around the baby, beginning with an examination of objects.

Sub stage 4: Carrying out one task in order to carry out a subsequent task (approximately 8 to 12 months)

For the first time, the motor activity reveals a purposeful movement directed at reaching a goal. If, for instance, a baby reaches for a toy and a cloth is placed over the toy, the baby will lift up the cloth to reach the toy. This movement is called the tertiary circular reaction.

Sub stage 5: Experimentation (from about 12 to 18 months)

In this stage, babies are able to begin experimenting with the tertiary circular reactions already established. They can already make the movements, but now they use them simply to see what will happen. If a baby boy has learnt that some toys rattle, he will also pick up a teddy bear and shake it to see if it rattles. If he puts a soft rubber toy in his mouth and is able to chew on it, he will try it with a woolly toy to see what happens. So this stage consists of the repetition of certain movements to see what the result will be. There is thus an element of estimation and expectation involved.

Sub stage 6: The use of symbols (approximately 18 to 24 months)

During this stage, children can already say words and make gestures to show what they want. They have already learnt that the word or the gesture stands for something else. Naming is an important intellectual activity and will be discussed in more detail under the development of language. The use of symbolism can now be observed in the baby's play as well. For example, a baby will hold a toy that looks like a telephone to his ear or use an object that looks like a pencil to scribble on a surface in front of him.

By the time babies can use symbols, they can begin to foresee the consequences of their actions. For example, a baby will see that putting yet another block on her already toppling tower of blocks will mean that the tower will tumble down. So she puts down the block and pushes over the whole tower herself to get more fun out of it.

The ability to use symbols marks the end of the sensorimotor stage and the beginning of pre-operational thought.

1.1.2.2 The stage of pre-operational thought (from about 2 to 6 years)

We have seen that even in the sensorimotor stage, the baby began to make use of symbols. Because the use of symbolism is such an important part of this stage, we will first look at the characteristics of the preschool child's use of symbolism. Because pre-schoolers have only just learnt to use symbolism, we can presume that their use of symbolism is at a beginner's level, rather than advanced.

The following are characteristics of symbolic thinking in the pre-operational stage:

Egocentrism

Children in the pre-operational stage believe that others see the world as they see it. The concept of egocentrism therefore indicates that children find it difficult to see the world from another's viewpoint.

For example, Thandi plays on her mother's bed while her mother is dressing for work. She discovers the shoulder pads inside the dress lying on the bed. "I know why dresses have these little cushions in," she remarks. "Why, Thandi?" her mother asks. "So that babies can sleep on their mommy's shoulder when they get tired in church."

This is a typical example of egocentric thought; preschool children view and evaluate everything in relation to themselves.

Centration

Children in the pre-operational stage often cannot see another person's perspective. Children in this stage often focus on only one aspect of a problem and completely ignore other equally important aspects. Piaget tried to find out whether children realise that important characteristics of objects or sets of objects remain the same, even if their physical appearance changes, so he conducted a series of experiments.

Each experiment begins with identical amounts, numbers, lengths, mass or area. One of the identical sets is then changed in appearance and children are asked if the object is still the same. In the first experiment, the same amount of water is poured into two identical glasses. The child sees that there is the same amount of water in each glass. Then the contents of one glass are poured into a longer, narrower glass so that the water level is higher. The child who is in the pre-operational stage of thought concentrates only on the rising water level and does not take into account that the second glass is narrower than the first. At this level of thought, it seems to the child that there is more water in the second glass.

In the conservation of numbers, such as in the experiment involving the coins, the child concentrates on the fact that one row of coins is longer than the other and does not look at the larger spaces in between the coins.

Appearance as reality

Preschool children deduce the nature of an object from its appearance. For example, a child who is looking at a glass of milk through dark glasses will believe that the milk is brown. Similarly, a child will take a bite out of a piece of brown plasticine if it looks to him like chocolate.

The absence of a familiar component of a specific event may also cause the child to think that the event never happened.

For example, Jason heard that his little sister was going to have a birthday soon. As it was her first birthday, her mother decided not to bake a birthday cake. On the afternoon of her birthday Jason asked: "Mommy, when is Susie going to have her birthday?" "Her birthday is today," answered his mother. "No, she hasn't had a birthday yet because we haven't blown out the candles." His mother realised that he associated a birthday with a cake and candles; for his sake, she then baked a cake so that he could experience his sister's birthday.

In the above example, Jason associated a birthday with a birthday cake. His reasoning was not yet inductive (from the specific to the general), nor yet deductive (from the general to the specific), but transductive. This means that he reasoned from the specific to the specific (Du Toit & Kruger 1991:81). The fact that there was no cake made him think that his sister had not had a birthday. Another example of transductive thought is when a child who is used to having a sleep every afternoon thinks, on a day when he has not slept, that it cannot yet be the afternoon because he has not slept.

An older child or adult will realise that the milk only looks brown and that the plasticine only looks like chocolate. They will also realise that you can have a birthday without a cake and an afternoon without a sleep. The confusion of reality described above occurs more often in the earlier stages of pre-operational thought.

1.1.2.3 The concrete operational stage (from about 7 to 11 years)

In this stage, children make use of mental operations to solve problems. Mental operations are strategies and rules which make thought more systematic and powerful (Kail 1998:151). The prerequisite is that children need a concrete object to be present for the thinking process to take place. This means that the young child still cannot solve problems using abstract concepts.

Some of the thinking strategies that children employ at this stage apply to figures. Children can begin to make use of mathematical techniques such as adding, subtracting, dividing and multiplying. Although these concepts soon have to be used at the abstract level, they are initially taught to young children using concrete examples.

Another characteristic of this level of thinking is that children develop the conception of the reversal of objects in an argument. Children learn that 5 + 2 = 7. Now they also know that this thinking process (the sum) can be undone by reversing it. So the reversed sum would be: 7 - 2 = 5. If we think again of the example of the water in the two glasses in the pre-operational stage, the older child will understand that if you reverse the experiment by pouring the water back from the long narrow glass into the short wide glass, the amount of water will still be the same. This ability is termed "conservation". Conservation depends on the fact that there is a quantitative relationship between things (liquids and solids) and that this remains constant, even though the visible, physical appearance of it may change.

Whereas children at the pre-operational level of thought presume that everybody sees the world as they see it (egocentrism), this tendency lessens when children notice that their friends have a different perspective on the world.

Although concrete operational thought represents a great advance on pre-operational thought, it is still limited in the sense that children need tangible, observable objects in order to reason and solve problems. They still cannot think in an abstract and hypothetical way. These concepts are explained below.

1.1.2.4 The formal operational stage (from about 11 years upwards)

From about the age of 11, children become able to think hypothetically and to reason deductively. Let's examine these concepts now.

Children in the formal operational stage of thought can also estimate the consequences and implications of a situation by not having to stick to familiar rules. If you were to ask a five-year-old child what would happen if fish could fly, the child would answer that fish cannot fly. There is no such possibility, because the question does not relate to reality. An older child, on the other hand, would be able to imagine the possibilities of flying fish and come up with a number of creative ideas.

The following aspects of thought are characteristic of the formal operational stage:

Abstract thought

The development of concrete thinking strategies gives children's thoughts a more logical, rule-oriented quality, which was not evident in the<pre-operational> stage of intellectual development. Now, because children in the formal operational stage are no longer bound by the concrete, they are able to examine the possibilities in a situation, namely that which could or might be. They realise that tangible reality is not the only possibility in problem-solving. They can think about and reason on abstract concepts such as poverty and wealth. They can also perceive the relationship between such concepts.

Propositional thought

This ability enables children to form hypotheses. A hypothesis is an estimate of the possible solution of a problem and a deduction is a provisional conclusion about what could happen. Before children know what the result is, they can test the result and then accept or reject their hypothesis.

For example, Yolanda, aged 12, and her friends were riding their bicycles down a slope when Yolanda's bicycle chain slipped off. The bicycle was going too fast for her to simply jump off – in fact, it started going even faster. With the wind whistling in her ears, Yolanda realised that if she jumped off immediately (first hypothesis), she would hurt herself badly (mentally testing the result of the hypothesis in advance). Further down the slope was a gravel surface with small stones. She realised that she could not jump off there either (second hypothesis) because by that time the bicycle would be moving even faster (third hypothesis), and to fall off there would hurt even more (again, mentally testing the result of the hypothesis in advance). She then noticed that the veld next to the road was not so steep and the clumps of grass might help to slow the bicycle's speed (fourth hypothesis); therefore, it might not hurt so much to fall among the grass clumps at a slower speed (mentally testing the hypothesis). On the basis of this realisation, she steered off the road and between the bushes. The bicycle slowed down and Yolanda ran into a bush, which threw her off her bicycle. As she stood up and surveyed her grazed knees, she realised that she had taken the right decision. She would have had a much worse fall on the gravel.

If Yolanda had been younger, about six or seven years old, she might not have thought of steering off the road, because bicycles belong on roads, not between clumps of grass. She might have simply stayed on the road and then later fallen off at a high speed.

Hypothetical-deductive thought

Some processes, constructs or situations are not directly observable, although we know they exist. Examples would be the concepts of discipline or love or the force of gravity. But how do we know such things exist, and can we prove it? Who has ever seen or touched the force of gravity? And who can say that they have seen or touched discipline or love? We simply deduce that these qualities exist, or we deduce the existence of a process such as the force of gravity from the effect it has on the environment.

The pattern of hypothetical-deductive thought is as follows: certain behaviour is observed; a position is deduced from the behaviour; and future behaviour is determined or anticipated. Because we cannot visibly observe the position, we must believe that it does exist; we therefore start from a theoretical

basis.

For example, while travelling on a bus, Paulina noticed that the bus driver was exceeding the speed limit. The bus passed another vehicle and Paulina noticed that to do so, the bus crossed a solid white line. She deduced that the bus driver was careless. She waited for an accident to happen. A few minutes later, the bus driver had to brake sharply because he had taken a corner too fast. The bus skidded, left the road and came to rest among some trees. Luckily Paulina and her fellow passengers were unhurt.

From the above example, we can see that the construct of carelessness was not something tangible that Paulina could see or hear. She deduced from the driver's behaviour that he was a careless driver and, therefore, expected (or anticipated) that an accident would happen. The fact that the bus skidded and ended up in the trees confirmed her hypothesis and led her to the conclusion that the driver was indeed careless.

How do propositional thought and hypothetical-deductive thought help with problem-solving?

A problem usually consists of different variables. To solve the problem effectively, we need to consider all the variables involved in the problem. The cognitive processes of analysis and synthesis are needed here. This means that the parts of the problem need to be separated from one another (to be analysed). Then the effect of each variable on the problem is determined separately. Finally, the variables are combined once more (synthesised) to determine their combined effect on the problem. When we compare this ability with the tendency of younger children to solve problems by reasoning from general principles, we can see that this form of reasoning represents a higher form of thought and is more systematic and flexible.

Table 1.1: Differences between the cognitive characteristics during early and late adolescence

Cognitive characteristics	
Early adolescence	**Late adolescence**
• transition from concrete to formal operations • abstract thought • flexible reasoning • critical attitude • stimulated by ability to analyse and see different points of view	• greater capacity for formal thought, leading to unrestrained theorising • four main types: ➢ abstract thought ➢ systematic thought ➢ hypothetical-deductive thought ➢ combinatorial thought

Cross reference*:* Read the section on cognitive development in your prescribed book (pp 37–39).

1.2 VYGOTSKY'S SOCIAL DEVELOPMENT THEORY

Lev Vygotsky's theory emphasises the importance of society and culture in promoting cognitive development. He believed that adults in a society foster children's cognitive development in an intentional and systematic manner by engaging them in challenging and meaningful activities.

While Piaget posited specific stages of cognitive development through which children progress and he described what children are capable of doing at each stage, Vygotsky sought to understand how children develop by studying those functions that have not yet matured, but are in the process of maturation. Vygotsky distinguished between the actual development of the child and the potential development of the child. Actual development is determined by what a child can do unaided by an adult or teacher. Potential development, in contrast, is what a child can do through problem-solving under adult guidance or in collaboration with more capable peers. Vygotsky called this area of potential development the "zone of proximal development" (ZPD). The ZPD is therefore defined as the gap between actual and potential development, that is, the gap between what a child can do unaided by an adult and what he or she can do under the guidance of an adult or in collaboration with more capable peers.

To better understand the ZPD, consider the experiences of Grade 1 learners in learning to read. Most learners in Grade 1 are beginning to read, but some have difficulty making the connections between sounds and written letters. These learners exhibit the potential for acquiring pre-reading capabilities, but reading is still beyond their zone of proximal development.

What is important about the ZPD is that it helps teachers to realise that two children who are capable of the same performance at present may not achieve the same level of performance six months from now. By observing how learners perform on problem-solving when they are assisted, teachers have a better indicator of potential performance than they do by considering just what learners can do on unaided tests.

What also makes the ZPD important is that it emphasises social interaction in facilitating development. When learners do much of their work in school by themselves, their development may be slowed. In order for them to develop fully, they must work with more skilled partners, such as the more skilled members of their peer groups or their teachers, who can systematically lead them into more complex problem-solving. Through successive turns of talking and action, learners negotiate new meanings with their peers, which they appropriate and internalise for their own subsequent use. A consequence of this process is that learners learn to self-regulate.

How to discover learners' Zone of Proximal Development (ZPD)

According to McCown, Driscoll and Roop, (1996), discovering learners' Zone of Proximal Development will require the following:

1. **Observation** of learners during class activities. This will enable you to become aware of their developmental levels and the type of instructional activities that suit them better.
2. **Interviewing or questioning** learners one-on-one. By means of questioning them, you can probe their reasoning behind answers and discover how they construct knowledge, possibly giving you better insight into how they process information.
3. **Conducting formal assessments** of learners' capabilities. This will enable you to determine what learners can do unassisted (on their own), and what kind of support they need.

Social interaction can be facilitated by using scaffolding and intersubjectivity.

Scaffolding is a process whereby the more advanced people change the amount or kind of support provided to the less skilled people, as the latter become more proficient in the skill. Usually the teacher is the more knowledgeable partner in the learning relationship, but this may also be a fellow student who is able to scaffold instructions for less knowledgeable learners. The use of scaffolding in building construction is the metaphor for this process.

Intersubjectivity is the process in which learning partners negotiate a mutual understanding of the task and how to proceed with its solution. They depend on each other in solving problems and accomplishing tasks. Therefore, the teacher or more skilled peer does not dominate the interaction or simply demonstrate a solution to the problem.

Using learning to facilitate development

According to Vygotsky, learning is most effective when it occurs within the ZPD with those capabilities that are in the process of developing. Teachers should design their instruction to meet each child's ZPD, because that is where it will be of greatest benefit in furthering the child's development.

Possible ideas for scaffolding

- Encourage learner interaction. E.g. Pair learners according to different abilities, so that they can learn from and teach each other.
- Provide concrete experiences for all learners. Beginning at the simplest level, enables learners to catch up or grasp faster, than beginning at a more complex level; excluding those who need more time or information to understand and learn.
- Use authentic activities. That is, instructional tasks that provide culturally and situationally relevant contexts for learning and development. Use experiences or scenarios that learners can relate to.
- Ensure that instructional tasks and learning activities are developmentally appropriate for your learners.

Cross reference*:* **In your prescribed book, read the following:**

- **a further definition of scaffolding, as it relates to constructivism (p 48)**
- **social support for learner achievement (pp 74–75)**

QUESTIONS TO CONSOLIDATE YOUR KNOWLEDGE

(1) What factors influence cognitive (intellectual) development?

.....

(2) What are the four stages of cognitive development, according to Piaget?

.....

(3) Write down two implications of Piaget's theory for people teaching teenagers at the formal stage.

.....

(4) How do you plan to facilitate the development of your students' metacognitive skills?

.....

(5) Write down three implications of Vygotsky's teaching theory.

.....

(6) Can you give two examples of developmentally appropriate practices for adolescents at the formal operation stage?

.....

State whether the following statements are **true** or **false**.

(1) Cognitive development theory studies the acquisition and development of intelligence. …….

(2) According to Piaget, the ability to mentally reverse events can be seen as the beginning of logical reasoning. …….

(3) According to Piaget, the ability to reason on a problem in an abstract manner is a characteristic of formal operational thought in the adolescent stage. …….

(4) For Vygotsky, learning occurs in the zone of proximal development and actually pulls development along. …….

(5) Piaget and Vygotsky would agree that asking questions to throw students out of equilibrium within their respective zones of proximal development can cause them to equilibrate. …….

Try to explain the meaning of the following terms in your own words and then check to see if you are correct.

Cognitive development…….....

Schemas…….....

Assimilation…….....

Accommodation…….....

Equilibration…….....

Zone of proximal development…….....

Scaffolding…….....

Intersubjectivity…….....

Metacognition…….....

TEST YOURSELF

Read each of the following descriptions of behaviour. Write down in which stage of cognitive development – concrete operations or formal operations – this behaviour would be evident.

(1) understanding the related processes of multiplication and division

.....

(2) perceiving more than one aspect of an object or problem at a time

.....

(3) experiencing difficulty in thinking about hypothetical problems

.....

(4) showing the ability to think logically about things that are unseen/invisible

.....

(5) approaching problems in a systematic fashion and generating and testing various hypotheses

.....

Select the best option to complete each of the following statements:

(1) The process of changing existing schemas or creating new ones in response to new information is called …

(a) assimilation.

(b) accommodation.

(c) equilibration.

(d) scaffolding.

(2) The process of filtering new information into existing schemas is called …

(a) assimilation.

(b) maturation.

(c) organisation.

(d) accommodation.

(3) Scaffolding can best be defined as …

(a) providing social experiences for children that reduce egocentricity.

(b) setting long-term learning goals and guiding the learner through these.

(c) providing skilled support that allows a child to proceed through the zone of proximal development.

(d) providing challenging activities that will help a child to move faster through the zone of proximal development.

(4) Intersubjectivity occurs when learning partners …

(a) allow the teacher to dominate the interaction.

(b) request the teacher to demonstrate a solution to the problem.

(c) do not depend upon each other to accomplish a task.

(d) allow the learner to be drawn into a more advanced approach to the problem because the teacher adjusts his or her perspective in order to do so.

QUESTIONS FOR DISCUSSION

(1) According to Vygotsky, what kind of tools do children need in order to engage in and understand their environment?

(2) How does cooperative learning utilise Vygotsky's concepts of scaffolding and intersubjectivity?

(3) Discuss the teaching implications of the assumption that a child's cognitive development level influences his or her learning.

(4) You are teaching History to Grade 8 learners. Explain how you would use Piaget and Vygotsky's theories to ensure that

a) all learners are actively involved in the learning process

b) your presentation of the learning material corresponds with the learners' level of cognitive development

STUDY UNIT 2: PERSONAL, PSYCHOSOCIAL AND MORAL DEVELOPMENT THEORY

Introduction

We all know from experience that schooling involves more than just the cognitive development of children and young people. In this study unit we are going to examine the emotional, social and moral development that occurs during the entire period the child is at school. We will begin by exploring ideas about how we come to understand ourselves and others. What is the meaning of the term "self-concept", and how is it formed? How do our views of others change as we grow? What factors determine our views about morality? What can teachers do to encourage personal qualities such as honesty, cooperation, empathy and self-esteem? We will also look at the work of Erik Erikson, whose comprehensive theory provides a framework for studying personal and social development.

Once we have an understanding of these aspects of personal and social development, we need to ask ourselves an important question: What is a developmentally appropriate education for adolescents? Several issues are important in the early years: physical development, reactions to preschool experience and the child's changing relationships with friends. As the child enters adolescence, other issues become important: physical and sexual maturation and health risks such as traumatic injuries, physical (sexual) abuse, drug abuse, and the risk of contracting HIV/AIDS.

Learning outcomes

After you have worked through this study unit, you should be able to

- **determine the role of social interactions in the development of a self-concept**
- **determine the role of culture in the development of self-esteem**
- **list the stages of psychosocial development of school-age children**
- **discuss the potential impact of unsuccessfully resolved crises on children's schooling**
- **explain Marcia's definition of identity statuses**
- **encourage gender equity in your (future) classroom**

QUESTIONS TO CONSIDER

How do individuals develop a self-concept and self-esteem?

How does social interaction influence personal growth?

What social problems affect learners' school life?

How do individuals develop moral reasoning?

2.1 THE DEVELOPMENT OF A SELF-CONCEPT AND SELF-ESTEEM

Learners' personal and social development is as important as their cognitive development. Teachers understand intuitively how important it is for learners to think well of themselves, to have a positive, rather than a negative, self-concept. Experienced teachers have seen learners who cannot wait to try new things, who welcome opportunities to interact with adults and peers, who radiate confidence in themselves. However, teachers have also seen learners who are hesitant to embrace both academic

and social challenges. More importantly, teachers can influence the feelings learners have about themselves. To prove this point, ask a few classmates or friends to join you in reflecting on the teachers you had in primary school and high school. Did a teacher ever say or do something that influenced your feelings about yourself, whether positively or negatively? Chances are at least one of them did. Ask your friends if their teachers ever boosted their confidence or made them feel inadequate. Then analyse your own experiences and those of your friends. Do you think that the teacher always influenced the learner's feelings intentionally? Probably not.

Nevertheless, as a teacher, you need to be aware of your influence on learners' beliefs about themselves – their self-concept or perception of themselves. Much of what learners learn about themselves comes from their interactions with others, including teachers. Equally, the interactions learners have with other people are influenced heavily by the way in which they perceive themselves. Given the influence that teachers can have on a child or adolescent's self-concept it is important for aspiring teachers to understand how self-concept and self-esteem are formed.

The terms "self-concept" and "self-esteem" are often used indiscriminately and interchangeably, but there is an important difference between them. Self-concept is a person's description of himself or herself in terms of roles, attributes or characteristics, for example "I am stubborn"; "I am pretty"; "I am intelligent". Self-esteem refers to a person's evaluation of his or her self-concept and the feelings associated with that evaluation. Two people may describe themselves as possessing the same attribute – stubbornness, for example – but one person may judge stubbornness as being positive, while the other judges stubbornness as being negative, depending on their values.

The way in which people describe themselves changes as they age. For instance, when pre-schoolers think about themselves and are asked to describe themselves, they tend to focus on concrete characteristics. Although such descriptions include characteristics of physical appearance and objects they possess, research has shown that the most frequent type of description among pre-schoolers is typical behaviour, such as "I can dress myself"; "I play with Sipho".

The transition from childhood to adolescence is a time of dramatic change in a person's life. The changes include changes in self-concept and self-esteem, and these are discernible in the self-descriptions of adolescents.

Cross reference: Read this section along with the following sections in chapter 3 of your prescribed book:

- ***Creating a quality learning environment (pp 72–77)***
- ***Making learning significant for students (pp 77–81)***

2.2 ERIK ERIKSON'S PSYCHOSOCIAL THEORY

Erikson's theory focuses on each person's relationship to the social environment and it emphasises the role of social and cultural influences on human development.

Erikson claims that all persons progress through eight stages of development. Each of Erikson's stages involves conflicts that the individual may resolve with one of two emotional outcomes – either positive and healthy, or negative and unhealthy. Erikson has named each stage in an attempt to capture the experiences and feelings of the conflicts taking place at that point in development. Each conflict can be experienced at a time and may reappear after it has first been experienced. But each conflict also has a unique time of ascendance when it dominates all other matters.

Erikson's stages of development

1. Trust vs Mistrust (birth to ±18 months)
2. Autonomy vs Shame and doubt (18 months to ±3 years)
3. Initiative vs Guilt (3 to ±6 years)
4. Industry vs Inferiority (6 to ±12 years)
5. Identity vs Role diffusion (adolescence)
6. Intimacy vs Isolation (young adult)
7. Generativity vs Stagnation (young adulthood to middle age)
8. Integrity vs Despair (later adulthood to old age)

2.2.1 Trust vs Mistrust (birth to ±18 months)

Erikson believes that during this stage, an infant is almost entirely dependent upon his mother for food, sustenance and comfort. The mother is the primary representative of society to the child. If she does her infant-related duties with warmth, regularity and affection, then the infant will develop a feeling of trust towards the world. This trust is a comfortable feeling in the infant that someone will always be around to care for his needs, even though the infant experiences numerous perceptual disappearances of the mother (and for the new-born, an object out of perceptual range is thought to be gone forever). On the other hand, an infant may develop a sense of mistrust or fearful uncertainty if the mother fails to provide the necessary qualities in the caretaking setting. According to Erikson, such a mother is setting up a distrusting attitude in her child that will follow the child throughout his life.

2.2.2 Autonomy vs Shame and doubt (18 months to ±3 years)

During the second stage, the infant begins to gain control over her bowel and bladder. Parents begin to demand that the child conform to socially acceptable forms and occasions for relieving herself/ eliminating bodily waste. The child may develop the healthy attitude that she is capable of independent or autonomous control of her own actions, or she may develop the unhealthy attitude of shame and may grow to doubt that she is capable of this control.

2.2.3 Initiative vs Guilt (3 to ±6 years)

During this stage, the child may discover ways to overcome his feeling of powerlessness by engaging in various activities; if he succeeds, then the overall healthy feeling of being an initiator of action will result. Alternatively, the child may fail to discover such paths of action and may feel guilty about his sense of being dominated by the environment.

2.2.4 Industry vs Inferiority (6 to ±12 years)

This stage coincides with the time when schooling begins and the child is involved in absorbing knowledge and developing intellectual and physical skills. As the child is drawn into the social culture of her peers, she naturally comes to evaluate her accomplishments by comparing herself with others. If she views herself as basically competent, she will feel productive and industrious. On the other hand, if she views herself as incompetent, particularly in comparison with her peers, then she will feel unproductive and inferior. This unhealthy attitude may negatively colour her whole approach to life and learning; consequently, she may tend to withdraw from new and challenging situations, rather than meeting them with confidence and enthusiasm.

2.2.5 Identity vs role Diffusion (adolescence)

Adolescents enter what Erikson refers to as a “psychological moratorium” – a gap between the security of childhood and the new autonomy of approaching adulthood. At this point, world views begin to be important to the adolescent. Numerous identities now become available to him from the surrounding culture, and he can experiment with different roles, trying each one out and seeing which ones he likes. The youth who successfully copes with these alternative identities and conflicts during adolescence emerges with a new sense of self that is both refreshing and acceptable. The adolescent who unsuccessfully resolves this identity crisis suffers from what Erikson refers to as identity or role confusion. This confusion may take one of two courses: the adolescent may withdraw and isolate himself from his peers and family, or he may lose his own identity in the mob.

The adolescent wants to be able to decide freely for himself such matters as what career he will pursue, whether he will go to university or look for a job after matriculation, and whether he will get married. Adolescents, who have done well enough to obtain a job that is held in reasonably high esteem, will experience the least stress during their attempt to find an identity.

By positively resolving the conflicts that precede adolescence e.g. (trust vs mistrust, autonomy vs doubt, initiative vs guilt, and industry vs inferiority), the individual develops a strong basis for positively resolving identity conflict. For example, if the individual emerges from the first crisis in life, namely trust vs mistrust, with the feeling that his needs will not be taken care of and a sense that he cannot count on others for help, a precedent is established for adopting a distrusting attitude in adolescence. Think about how this might affect his relationship with you, as his teacher at school. He might be a difficult learner who rejects the advice of his teachers at school because he has developed the belief that others cannot be trusted.

Another example relates to the crisis of industry versus inferiority, which occurs during the primary school years. As explained above, Erikson defines "industry" as the sense of being able to create things

and the sense of being able to make them work well, even perfectly. Erikson believes that a child must develop the sense of being a worker; he needs to know he can produce work and solve problems.

There are different aspects of educational settings that help or hinder identity development by promoting a sense of industry in the learner. In some primary schools, self-restraint and a strict adherence to duty are stressed, rather than the process of self-discovery. However, it is important to note that either system may work well with some learners, but not with others. If the traditional method is carried to the extreme, learners may develop too much self-restraint and a sense of duty in conforming to what others do, or expect of them. However, if the opposite method is used in the extreme, Erikson believes that children may not learn enough from teachers. He believes that children should be mildly but firmly coerced into the adventure of finding out that they can learn to accomplish things that they would never have thought of by themselves.

2.2.6 Intimacy vs Isolation (young adult)

Early adulthood is usually associated with a career and the opportunity to form an intimate relationship with a member of the opposite sex. If the young adult forms friendships with others and a significant, intimate relationship with one individual in particular, then a basic feeling of closeness with others will result. A feeling of isolation may result from the inability to form friendships and, particularly, an intimate relationship.

2.2.7 Generativity vs Stagnation (young adulthood to middle adulthood)

A chief concern of adults is to assist the younger generation in developing and leading useful lives. This concern focuses on successful child-rearing. Childless adults may need to interact with young people through adoption, guardianship or a close relationship with the children of relatives and friends. Generativity, or the feeling of helping to shape the next generation, is the positive outcome that may emerge. Stagnation, or a feeling of having done nothing for the next generation, is the unhealthy outcome of failing to develop relationships with young people during adulthood.

2.2.8 Integrity vs Despair (later adulthood to old age)

The later years of life are a time for looking back at what we have done with our lives. If an older person has developed a positive outlook in each of the preceding periods of emotional conflict or stages of development, retrospective glances will reveal a picture of a life well spent, and the person will feel satisfied (ego integrity). However, the older person may have resolved one or more of the crises in a negative way. If so, retrospective glances will likely yield doubt, gloom and despair over the sum worth of his life.

2.3 MARCIA'S WORK ON IDENTITY STATUSES

James Marcia's work on the different types of identity – called identity statuses – is among the best-known work that expanded on Erikson's psychosocial theory. Marcia was interested in conducting empirical research based on Erikson's theory. As a result of his research, Marcia proposed four identity statuses: identity diffusion types, moratorium types, identity achievement types and foreclosure types.

2.3.1 Identity diffusion

Marcia regards identity diffusion as a situation where adolescents avoid thinking about lifestyle decisions and are unable to develop a clear sense of self. A young person who is unable to commit to decisions or unable to postpone decisions by declaring a psychosocial moratorium may seek another solution to the developmental crisis – a solution that Erikson called a negative identity, which is an aspect of identity diffusion.

Young people who adopt a negative identity are often those who rebel against authority figures, such as parents and teachers. Typically, these young people are disorganised, they act impulsively and they are not goal-oriented. They often avoid making a commitment to schoolwork or to interpersonal relationships.

2.3.2 Moratorium

The urgency of identity decisions can overwhelm some young adolescents. Rather than deal with lifestyle decisions that they are not prepared to make, they enter a state that Erikson called a psychosocial moratorium. A psychosocial moratorium is a suspension of any decisions that commit the adolescent to a certain occupational or social role; essentially, the adolescent buys time. Nevertheless, a moratorium period that is used to gain new experiences and to taste adventure can often contribute to sound decisions when the moratorium ends.

2.3.3 Identity achievement

Identity achievement is ascribed to those who have made lifestyle decisions, although not in all areas. For example, a young woman might decide, against the advice of her parents, to pursue a medical career. The same young woman may still be confused about sexuality, but she is committed to her occupational choice. The decisions made by identity-achievement types are their own; these youngsters have not simply followed the advice of parents or teachers. Identity-achievement types may not have all the answers, but they have made some decisions that give their development direction.

2.3.4 Foreclosure

Adolescents who adopt a foreclosure form of identity avoid crises by simply accepting the decisions made for them by others. Often, the decisions they accept were made by their parents. It is typical of foreclosure types to make – or, perhaps more appropriately, adopt – their decisions early. With no decisions to make, the crises of identity are averted.

2.4 PIAGET'S FRAMEWORK OF MORAL REASONING

Piaget's contribution to the development of moral reasoning and moral judgement was based on his observation of children as they reacted to their environment. He made up stories and asked children of different ages to discuss them. Based on the variety of responses given by children of different ages and the consistency of responses among children of a similar age, Piaget formulated descriptions of how judgement about right and wrong develop.

Based on these stories, (see additional reading) Piaget asked children questions such as, "Who was the naughtiest?" and "Were Julian and Augustus equally guilty?" He concluded that there are two general types of moral thinking, as explained below.

2.4.1 Morality of constraint

This type describes judgements made by children up to approximately the age of ten. This is sometimes referred to as *moral realism*. Rules define what is right and wrong and come from an external authority. Such rules have to be obeyed because they are made by authoritative people. Younger children regard these rules as sacred and the context in which events occur is of lesser importance. For younger children, the seriousness of a crime is determined by its consequences (McCown et al 1996; Lickona 1976; Piaget 1965). In the context of this story, Augustus would be viewed as being guiltier than Julian because he made a bigger blot on the tablecloth.

2.4.2 Morality of cooperation

This type of morality is practised by older children and is also known as *moral relativism* or *moral flexibility.* For the older child, rules provide guidelines and do not need to be followed blindly without considering the context. Decentration is a characteristic of this level of cognitive development. McCown (1996:84) suggests that older children may consider that rules should not be obeyed simply because someone in 'authority' has established them, but rather because they guard against violation of the rights of others. If a person causes damage or injury, but his intentions were good, he is less culpable than a person who commits a wrongful act premeditatively (McCown 1996; Lickona 1976; Piaget 1965). Older children will therefore consider Augustus to be less guilty, since it was his intention to do something nice for his father when he inadvertently stained the tablecloth.

2.5 KOHLBERG'S LEVELS OF MORAL DEVELOPMENT

As a student, Lawrence Kohlberg became fascinated with Piaget's views on moral development. He, too, used stories to investigate moral reasoning. Kohlberg's stories, such as the story of Heinz (see additional reading) became known as "moral dilemmas".

Based on his subjects' responses to moral dilemmas, Kohlberg formulated six stages of moral reasoning within three levels. Before considering the levels, it was assumed that the levels of moral development were also linked to the development of the intellect. This implies that a certain level of intellectual development has to be reached (biologically speaking) before children can attain a high level of moral

reasoning. Yet there are examples of young children functioning at a high level of moral reasoning, which contradicts the theory that intellectual development is a prerequisite for moral reasoning.

The following example shows a situation that demands moral reasoning:

Petrus heard his parents say that a family who lived nearby, the Jays, were going on holiday and could not find anyone to feed their dog. Petrus offered to do it, but his parents forbade him to do it. They said he was still too young and that something could happen to him if he had to go into strangers' premises every day to feed their dog. The next day a classmate of Petrus, Eugene, told him that the Jays had asked him to feed their dog during the holidays. "But you're going on holiday yourself!" objected Petrus. "I know, but I'm going to put down a big dish of food for the dog that will last him for a week. I'll also put down a big bowl of water. He won't get hungry or thirsty." Petrus was very worried. He noticed the dog standing at the gate every day, barking, and he wondered if it had water to drink. The second day he couldn't stand it any longer. He climbed over the Jays' gate and walked around the house. The little dog sniffed around his legs and ran on ahead. Petrus could see no food or water for the dog. He picked up the dog and climbed over the fence with the dog in his arms. He took the little dog home and gave him food and water. Then he hid the dog in his room. That evening, Petrus's mother found the dog with Petrus in his room.

According to Kohlberg, there are three levels of moral development, each of which consists of two stages.

2.5.1 Preconventional level

The most important issue for people at this level of reasoning is punishment and reward. Virtually the entire moral reasoning of most children and many adolescents is governed by this kind of obedience, consisting of a fear of punishment and a hope of reward.

Stage 1: Obedience reasoning – focus on consequences of actions

Petrus's four-year-old sister is still at this phase of moral reasoning. She looked at the dog with wide eyes and said: "I wouldn't go near a strange dog. Mommy said I mustn't."

Stage 2: Instrumental exchange – egocentric orientation

Petrus's five-year-old brother had this to say: "But you're not allowed to climb over the wall. You'll be caught."

2.5.2 Conventional level

At this level of reasoning, law and order and existing rules are the most important consideration.

Stage 3: Interpersonal conformity – do what is expected of you

Petrus's granny came to see what was going on. She said: "This isn't the way your mommy and daddy brought you up. Why did you take another person's dog?"

Stage 4: Law and order – the rules of the social system

Petrus's mother was very upset: "If the police had seen you, they would have arrested you. It is against the law to climb over other people's fences."

2.5.3 Postconventional level

At this level of reasoning, personal norms and values are what count, even if they do not always accord with the law and the social system.

Stage 5: Social contract – rules cannot provide for every eventuality

Petrus's older brother looked at the little dog and said: "There was nothing else you could have done. You had to climb over the fence to help the dog. I'm sure the people will understand."

Stage 6: Universal ethical principles

Petrus's father thought over the incident and said: "The dog would have died if you had not helped him. You did break a rule, but you obeyed a more important rule: you saved his life."

Table 2.1: Kohlberg's stages of moral development

LEVEL	STAGE	DESCRIPTION
Preconventional (birth to 9 years)	1.Obedience reasoning	The child behaves in order to avoid punishment.
	2.Instrumental exchange	Start of "social reciprocity" – scratch my back and I'll scratch yours.
Conventional (9 years to young adulthood)	3.Interpersonal conformity	Focus on the expectations of others, especially authority figures and peers. Value approval from others.
	4.Law and order	A moral person follows laws without question. Laws are necessary and good.
Postconventional (adulthood)	5.Social contract	Laws now become open to evaluation. There may be good reasons for disregarding laws.
	6.Universal ethical principles	A person chooses a belief system and a set of principles that guide their behaviour.

Kohlberg claimed that his levels of moral reasoning were universal. This would mean that all individuals in all cultures would pass through the same stages of moral development. This is contradicted by later researchers, such as Miller and Bersoff (1992:541–554), Gilligan (1982, 1988) and Noddings (1984, 2003).

2.6 CAROL GILLIGAN'S THEORY OF GENDER-BASED MORALITY

Carol Gilligan presents us with a different perspective in her theory of gender-based morality. In her view, later regarded as a feminist view, Gilligan argued that neither Erikson's theory of identity development nor Kohlberg's theory of moral development accurately describes the process of identity formation and moral reasoning of females. Kohlberg's stages of moral development were based on a longitudinal study of males (McCown, Driscoll & Roop 1996:88). Gilligan proposed that women are

generally more empathetic and compassionate towards others and more sensitive to relationships than men (Gilligan 1977; Holstein 1976). This may explain why women are more likely to be classified as being at Kohlberg's stage 3, rather than at stage 4. Gilligan developed a theory that comprises three levels and two transitions between levels, as illustrated in the table below.

Table 2.2: Gilligan's levels of moral development

Levels	Description	Goal
1 Level 1	Individual survival	Selfishness is identified as the primary concern.
1A *Transition*	*From selfishness to responsibility to others*	*Transition from 1 to 2 leads to the realisation that it is good to care for others and not just for yourself.*
2 Level 2	Self-sacrifice and social conformity	This is similar to Kohlberg's stage 3: the conventional view of women as caretakers and protectors.
2A *Transition*	*From goodness to truth*	*In order to care for others, you have to care for yourself too.*
3 Level 3	Morality of nonviolence	Realisation that it is wrong to serve yourself at the expense of others; the goal is to hurt neither yourself nor others.

Table 2.3: Comparison between Kohlberg and Gilligan's theories

Kohlberg	Gilligan
Confined to moral reasoning, i.e. cognitive judgements of right and wrong (McCown et al 1996)	Stresses affect, i.e. feelings, attitudes, emotions (McCown et al 1996)
"morality of justice" that emphasises rights, fairness, rules and legalities (Brabeck 1986)	"morality of care and responsibility" emphasising relationships, care, harmony, compassion and self-sacrifice (Brabeck 1986)

Additional reading:

- **Read up on Thomas Lickona's integrative model of personal and interpersonal development.**
- **Read Piaget and Kohlberg's stories, on websites such as http://www.simplypsychology.org/piaget-moral.html, for example.**

SUMMARY OF PSYCHOSOCIAL AND MORAL DEVELOPMENT

PSYCHOSOCIAL DEVELOPMENT	MORAL DEVELOPMENT			
ERIKSON	**PIAGET**	**KOHLBERG**	**GILLIGAN**	**LICKONA**
• Trust vs mistrust (birth to ±18 months) • Autonomy vs shame and doubt (18 months to ±3 years) • Initiative vs guilt (3 to ±6 years) • Industry vs inferiority (6 to ±12 years) • Identity vs Role Diffusion (adolescence) • Intimacy vs isolation (young adult) • Generativity vs stagnation (young adulthood to middle age) • Integrity vs despair (later adulthood to old age)	• Morality of constraint • Morality of cooperation	• Preconventional morality (birth to ±9 years) • Conventional morality (9 years to young adulthood) • Postconventional morality (adulthood)	• Individual survival • Self-sacrifice and social conformity • Morality of nonviolence	• Self-esteem and social community • Cooperative learning and helping relations • Moral reflection • Participatory decision-making

QUESTIONS TO CONSOLIDATE YOUR KNOWLEDGE

1) Differentiate between the self-concept and self-esteem.
2) Can you name the stages of psychosocial development of school-age children?
3) Discuss the potential impact of unsuccessfully resolved crises on an adolescent child's schooling.
4) Discuss the role of conflict in each of Erikson's developmental stages.
5) Give an example of each of Kohlberg's levels of moral reasoning.
6) What is the role of social interaction in the development of a person's self-concept?
7) What is the role of culture in the development of a person's self-esteem?
8) How can teachers encourage gender equity in their classrooms?

9) How can teachers effectively accommodate early and late teenage maturation in their classrooms?
10) Are there gender differences in moral development? How does Gilligan approach this question?

Try to explain the meaning of the following terms in your own words and then check to see if you are correct:

1. Morality of constraint: .....
2. Morality of cooperation: .....
3. Identity:.....
4. Identity diffusion: .....
5. Moratorium:.....
6. Identity achievement:.....
7. Foreclosure: .....

QUESTIONS FOR DISCUSSION

(1) Given that development is complex and includes many factors, how can teachers deal with learners' feelings of inferiority, guilt, or role diffusion? Give examples.

(2) Think of classroom practices that could integrate your learners' cognition, affect and behaviour. Give examples.

(3) What is the relationship between Gilligan's concept of survival and Piaget's concept of egocentrism? Explain.

(4) In what ways can knowledge of your learners' personal and interpersonal growth help you to become a more effective teacher? Give examples.

SCENARIO

Lately, Mpho has been skipping classes. When Mr Masemola, his Grade 11 Mathematics teacher, spoke to him privately last week, Mpho told him that he felt frustrated with school and his parents. "There is so much pressure to go to university," he confided. "My parents remind me every day about the importance of university and they have already decided where they want me to go. How about me? Nobody asked me where I want to go! In fact, I don't even know if I *want* to go to university!"

How would Erikson and Marcia explain the way Mpho feels? If you were Mr Masemola, what would you say to Mpho? And what would you say to his parents?

Conclusion

With adolescence comes puberty and the emotional struggles of coping with all the related changes. Females mature about two years earlier than males. Early maturation is generally beneficial for males, although it is not without its disadvantages. However, early maturation is not generally beneficial for girls. Adolescents face many risks today, including pregnancy, eating disorders, drug abuse, HIV/AIDS and suicide. At this stage of development, it is particularly important that teachers deal with learners' educational needs in a way that is appropriate to their physical, cognitive, personal and social levels of development.

STUDY UNIT 3: BEHAVIOURAL THEORY

Introduction

Understanding human behaviour is critical to aspirant and practising teachers, since their role requires them to help their students to benefit optimally from the learning-teaching situation. This has implications for motivating students, classroom management and dealing with behavioural and other difficulties. Further information on this topic is presented on the myUnisa site for this module.

Learning outcomes

After you have worked through this study unit, you should be able to

- **determine the role of behaviour in learning**
- **discuss the basic principles of behaviourism**
- **list and explain the different kinds of reinforcers**

3.1 INTRODUCTION TO BEHAVIOURISM

Behaviourism (also called the behaviourist approach) was the primary paradigm in psychology between 1920 and 1950. Its goal was to describe the environmental causes of behavioural effects. Thus it is commonly defined as an attempt to understand behaviour in terms of relationships between observable stimuli (events in the environment) and observable responses (behavioural actions).

3.2 WATSON: FOUNDER OF BEHAVIOURISM

The founder of behaviorism is **John B Watson (1878–1958)**. He began studying animals as a graduate student at the University of Chicago in 1901. Over the years, he performed experiments with monkeys, chickens, dogs, cats, frogs and fish, but his usual research animal was the rat, which he studied in mazes and other testing apparatuses. Watson was impressed with the amount he could learn about an animal's behaviour without any consideration of the animal's mind. Laws of behaviour could be described that related changes in behaviour directly to changes in the environment to which the animals were exposed, without any relation to thinking or other mental processes. He therefore became convinced that mental constructs were of no value in explaining human behaviour.

Watson's main ideas were as follows:

- The real subject of study in psychology is not the mind, but behaviour, defined as the observable actions of people and other animals.
- The appropriate goal of psychology is to identify the environmental conditions that cause individuals to behave in particular ways.

- The achievement of this goal does not require any reference to the mind or to any unobservable events occurring within the individual. In fact, such reference should be avoided. It is enough simply to describe the environment–behaviour relationship.
- No fundamental differences exist between human behaviour and that of the animals, nor between the methods that should be used to study humans and other animals.

3.3 SKINNER

Of the many behaviourists who succeeded Watson, by far the most influential was **BF Skinner (1904–1990)**. Skinner believed that if teachers are to understand their learners, they must examine the learners' behaviour – not just their thoughts and feelings.

According to Skinner, the observable characteristics of the environment that affect the individual are called stimuli. The individual responds to a stimulus in what we then observe as overt behaviour. A simple example is where the teacher tells the learner to clean the classroom (stimulus) and the learner does so (response). According to Skinner, one of the major ways in which stimuli and responses are linked is through the principle of operant conditioning. In this type of learning, the individual operates on the environment, that is, the individual does something and, in turn, something happens to him/her. Another way of expressing this is by stating that the individual's behaviour is instrumental in causing some effect in the environment. For example, consider the following conversation:

Teacher: Hey Peter, where did you get that new notebook?

Peter: My mother bought it for me.

Teacher: Oh, yeah? Why?

Peter: Because I got mad about something and started yelling at her.

Teacher: Do you mean that if you get mad and throw a fit, your mom buys you a notebook?

Peter: Yeah, I guess that's the way it works!

The above scenario is characterised by the principle that behaviour is determined by its consequences. According to this principle, behaviour followed by a positive stimulus is likely to recur, whereas behaviour followed by a negative stimulus is not as likely to recur. The positive experience is referred to as reinforcement and the negative experience is labelled punishment.

Another area of child development in which the principle of operant conditioning is applied is behaviour modification. This approach to changing children's behaviour is widely practised by parents and teachers in an effort to resolve children's problems. Basically, behaviour modification involves substituting acceptable patterns of behaviour for unacceptable ones (i.e. replacing unacceptable behaviour with acceptable behaviour). Contingencies are established to ensure that acceptable responses will be acquired or learned; this learning is facilitated by reinforcement.

Skinner's work on operant conditioning was inspired by an experiment that was conducted by **Ivan Pavlov**, which demonstrated a principle of classical conditioning. Pavlov studied how a dog's salivation reflex might be conditioned, that is, brought under the control of the environment. His procedure began by simply presenting food to the dog. The dog salivated. The food is an unconditioned stimulus, a stimulus that automatically elicits a response. Salivation is an unconditioned response, an automatic reflex. Reflexes do not need to be learned or conditioned; they occur automatically in the presence of particular stimuli. For example, people flinch when they realise they are about to be hit, or they draw back in haste upon touching a hot surface, such as a hot plate on a stove. In the case of Pavlov's experiments, the aim was not to get the dog to exhibit a reflex (i.e. salivation in the presence of food), but to get the dog to salivate predictably *before* food was presented. Pavlov conditioned the dog to salivate to a particular sound, a stimulus that does not normally elicit salivation. The sound is the conditioned stimulus, a stimulus that is paired with an unconditioned stimulus. Classical conditioning is therefore defined as the process of bringing reflexes under the control of the environment. It is also known as Pavlovian conditioning and respondent conditioning.

Kinds of reinforcers

The use of reinforcement as a consequence of behaviour is perhaps the most important management skill a teacher can possess. Understanding the effects of reinforcement entails recognition of the different types of responses that can serve as reinforcers.

Primary reinforcers: A primary reinforcer is basic to biological functioning. Food, water, shelter, physical comfort and affection are reinforcers that contribute to human functioning. Primary reinforcers can be used effectively in instructional settings. Teachers find that some autistic children, for example, learn to make eye contact or to speak when rewarded for their behaviour with small bits of food. In one research study, high school learners also reported sweets as favourite rewards for which they would behave appropriately in class. However, reinforcements used in classrooms usually involve conditioned reinforcers.

Conditioned and generalised reinforcers: A conditioned reinforcer is a neutral object, gesture or event that acquires the power to reinforce behaviour as a result of being paired with one or more primary reinforcers. Perhaps the most common conditioned reinforcer for humans is money. Money is sometimes used to reward learners' academic progress, a practice that has met with criticism because progress tends to halt when the money stops. Some kinds of conditioned reinforcers are social in nature. A gesture of affection, a word of praise, a hand placed on a shoulder, a handshake, a physical threat or a verbal reprimand are all examples of conditioned reinforcers.

3.4 BANDURA

Social cognitive theory, founded by **Albert Bandura**, emphasises that behaviour, environment and cognition are key factors in development. A major perspective on child development is called social learning theory. Social learning theorists such as Bandura (father of social learning theory) believe that behaviour is learnt from the environment through the process of observational learning. Overt, directly observable behaviour is more important in understanding development than the private mental thoughts investigated by cognitive developmental theorists. Social learning theorists are also called behaviourists.

In addition to studying observable behaviour, social learning theorists also emphasise the importance of environmental influences. For instance, they believe that the greatest changes in an adolescent's development come about through social experiences.

The social learning theory holds that changes in the adolescent's behaviour are regulated by three basic laws and principles: reinforcement, punishment and imitation or modelling. These basic principles apply to all people in all cultures.

See myUnisa for further information on classroom and behaviour management, including approaches to discipline.

QUESTIONS TO CONSOLIDATE YOUR KNOWLEDGE

(1) Explain the difference between classical and operant conditioning.
(2) What is positive reinforcement?
(3) What is the difference between negative reinforcement and punishment?

Try to explain the meaning of the following terms in your own words and then check to see if you are correct. (Consult a variety of sources to gain a deeper understanding.)

Classical conditioning.....
.....
Operant conditioning….....
.....
Negative reinforcement.....
.....

Write down whether the following statements are **true** or **false**.
(1) Learning means a change in behaviour, and this is caused by experience. ……
(2) Teachers use negative reinforcement to weaken undesirable behaviours. ……
(3) Continuous reinforcement increases behaviours more rapidly than intermittent reinforcement. …….....
(4) A verbal reprimand is an example of a conditioned reinforcement. ……
(5) The most common conditioned reinforcer for human beings is money. ……
(6) When children do something just to stop the teacher from punishing them, they are motivated by a desire to avoid adverse consequences, rather than a desire to adopt a particular behaviour. ……

TEST YOURSELF
Select the best option in each case.

(1) Many learners start perspiring before taking science tests. This is an example of …
(a) an unconditioned response.
(b) negative reinforcement.
(c) presentation punishment.
(d) classical conditioning.

(2) At Ramathlala High School, learners who are not dressed neatly are kept after school hours to clean up the classrooms. This is an example of …
(a) punishment.
(b) shaping.
(c) changing
(d) negative reinforcement.

(3) Over a period of several weeks, a buzzer would go off in Mr Masango's class each time learners stopped working. The learners soon learn to keep working until they have finished their task. Which of the following concepts explains the change in their behaviour?
(a) fading
(b) negative reinforcement
(c) presentation punishment
(d) discriminative stimulus

QUESTIONS FOR DISCUSSION

(1) What can teachers do to help learners reinforce desirable behaviour and take control of their actions?

(2) What are the negative implications of negative reinforcement? Explain in which situations you would consider using it, giving your reasons for doing so.

(3) What should teachers take into consideration before adopting any behavioural strategy? How can you make behavioural principles work for you and the learners in your class?

(4) How would you select reinforces for your learners? Which behaviouristic principles would guide your selection process?

(5) Thomas is in your Grade 9 class. He does very well academically, but his behaviour in class is irritating and disturbing. He is rebellious and disrespectful, he argues with you constantly and upsets the group in which he works to such an extent that they can never do any work properly. He also gets very angry when you punish him, but the punishment does not change his behaviour. You know that Thomas has good leadership qualities and much potential as a learner. What would you use as a reinforcer to change his attitude and behaviour?

PART II

ASPECTS OF QUALITY TEACHING AND LEARNING

Part II comprises the following:

- **Chapters 1, 2, 3, 4, 5, 15 and the appendix of the prescribed book:**

Killen, R. 2015. *Teaching strategies for quality teaching and learning.* 2nd edition. Juta. Cape Town

AN OVERVIEW OF THE CHAPTERS IN THIS SECTION

(Noteworthy sections are in bold italics)

Chapter 1: Understanding the National Curriculum Statement

In this chapter, the following aspects are important:

- ***three possible approaches to structuring a curriculum (pp 2–4).***
- ***The three basic premises from which Spady developed outcomes-based education, since these are useful when considering sound educational practices (P15).***

The rest of the chapter is **additional reading** to help you understand the most recent curriculum statements and policies; this information will not be examined.

Chapter 2: Foundations for effective teaching and learning

THE EVOLVING CONCEPT OF 'GOOD' TEACHING (p 24)

A brief historical background

Teaching is more than just presenting content

A knowledge base for teaching

Characteristics of effective teachers

Characteristics of effective learners

QUALITY LEARNING (p 42)

CONSTRUCTIVIST APPROACHES TO TEACHING AND LEARNING (p 45)

TEACHING FOR UNDERSTANDING (p 51)

What is understanding?

How can you teach so that learners understand?

Combining constructivism with teaching for understanding

EFFECTIVE LEARNING ENVIRONMENTS (p 58)

USING TECHNOLOGY TO ENHANCE TEACHING AND LEARNING (p 59)

Chapter 3: A framework for quality teaching and learning

Chapter 4: Planning for quality teaching and learning

Chapter 5: Reflecting on quality teaching and learning

SOME BARRIERS TO REFLECTION (p 130)

Chapter 15: Assessment principles

WHY DO WE ASSESS LEARNERS?

SCHOOL-BASED ASSESSMENT

RELIABILITY

VALIDITY

FAIRNESS, EQUALITY AND EQUITY

FORMAL AND INFORMAL ASSESSMENT

FORMATIVE AND SUMMATIVE ASSESSMENT

WAYS TO BENCHMARK LEARNER PERFORMANCE

- Norm-referenced assessment
- Criterion-referenced assessment
- Standards-referenced assessment

AUTHENTIC ASSESSMENT

PLANNING ASSESSMENT

MARKING and GRADING

- The marking process

Remember to use the following at the end of each chapter:

REVIEW AND REFLECT ON YOUR LEARNING

USEFUL WEBSITES

NB: Appendix (pp 417–420): EDUCATOR ROLES AND COMPETENCES

PART III

TEACHING AND LEARNING STRATEGIES

Part III comprises chapters 6 to 14 of the prescribed book.
NB: All chapters should be read, but only chapters 6 to 10 will be examined.

Introduction

The success of the teaching-learning activity depends entirely on the teacher's ability (or lack of it) to create a classroom climate that encourages active, participative learning. The teacher's overall aim is to involve the learner in active participation in the learning process; to achieve this aim, the teacher needs to be able to engage the learner in a critical thinking exercise about the subject content. Subject content should not be presented as a given, or as a form of eternal truth. Instead, it should be presented and accepted simply as what it really is, that is, a useful tool with which to understand reality enough to operate confidently in one's own life-world. This presents a greater challenge to the teacher, who has the responsibility for creating a classroom situation that invites every learner to view new content critically, against the background of his or her own existing knowledge. This way of presenting subject content encourages learners to construct a deeper and richer form of knowledge which widens their experience of the life-world. In this kind of a teaching-learning situation, the learner personally grapples with the content and tries to reconcile it with his or her own existing knowledge. There are many ways to facilitate learning and a variety of teaching and learning strategies can be used in lessons to achieve this aim.

One of the major distinctions made in these chapters of your prescribed book is between teacher-centred instruction and learner-centred instruction. Both sets of techniques can be used to foster active learning.

The following teaching and learning strategies will be covered in this section:

Chapter 6: Direct instruction
Chapter 7: Discussion
Chapter 8: Small-group work
Chapter 9: Cooperative learning
Chapter 10: Problem-solving

Only content from Chapters 6 to 10 will be examinable.

Chapter 11: Inquiry
Chapter 12: Case study
Chapter 13: Role-play
Chapter 14: Writing

Learning outcomes

NB: After you have worked through part III, you should be able to

- **discuss important features of each given strategy**
- **give reasons for using each strategy in the context of working with adolescents**
- **discuss issues to consider before using each strategy**
- **plan/prepare lessons, implementing the different strategies (how to use them) with adolescent learners in your subject area**

- **show your understanding of potential problems that may arise with each strategy**

Cross reference: View these strategies in the context of constructivist approaches to learning (p 45).

Conclusion

In an effort to make the workload in this module more manageable, only five of the nine chapters in part III will be examined. However, as a 21st-century teacher, you need to ensure that you continuously acquire resources that will enable you to be effective. You thus need to acquire and develop the skills, tools and mind set necessary to fulfil the roles of an effective teacher.