



STAWA DEPTH and BREADTH of CONTENT: Teacher Support Documents

Senior Secondary Science WACE 2015 - 2016 Psychology Unit 3

The STAWA Depth & Breadth of Content documents have been developed through the collaboration of teachers working in Department of Education, Catholic Education and Independent Schools.

Purpose

The STAWA Depth & Breadth of Content documents are intended to promote a shared understanding of the course content that improves moderation across schools, regions and systems/sectors.

Caution

The Depth and Breadth points of elaboration are interpretations. The ATAR syllabus content statements are the only parts of these documents that are mandated. Examiners are required to address the mandated statements only.

The STAWA Depth & Breadth of Content documents are a great example of teachers helping teachers for the benefit of all students.

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Leadership in Science Education

PSYCHOLOGY

ATAR Year 12

Unit 3



Unit description

The focus of this unit is to introduce new concepts which assist students to have a better understanding of human behaviour. In this unit, students study the functions of the four lobes of the cerebral cortex and examine how messages are transmitted from the brain to the body. They focus on how behaviour is influenced by learning, by reviewing classical and operant conditioning, negative and positive reinforcement and observational learning. They further expand their knowledge and understanding by examining behaviour that is not influenced by learning, such as heredity, hormones and recreational drugs. Students learn about the impact of others on individual behaviour. They examine the socialisation processes observed within families and explore how social background and gender can shape communication styles. They expand on their knowledge of ethics in psychological research by considering the role of the experimenter and participants' rights such as privacy and anonymity. Students engage in detailed investigations of experimental methods, noting practical issues associated with research and its application.

Research methods

Planning and conducting psychological research

- research terminology
 - experimental, non-experimental
 - scientific, non-scientific
 - sample
 - population
- ethics in psychology research
 - role of the experimenter
 - participants' rights – privacy, anonymity, confidentiality, voluntary participation and withdrawal rights
 - informed consent procedures
 - deception in research
 - professional conduct
- practical issues associated with planning and conducting research

- difference between sample and population data
- features of experimental research methods
 - independent and dependent variables
 - operational hypotheses
 - controlled and uncontrolled variables
 - experimental and control groups
 - placebo and experimenter effects
 - reliability and validity
 - longitudinal and cross-sectional designs
- features of non-experimental (descriptive) research methods
 - case studies, surveys, correlational studies and archival research
 - behavioural variables (not dependent and independent variables) in correlational studies
- qualitative methods of data collection
- objective quantitative measures in research – physiological measures
- subjective quantitative measures in research – checklists and rating scales, such as Likert scales

Processing and evaluating psychological research

- methods of displaying quantitative data – tables, graphs and diagrams
- data interpretation
 - measures of central tendency – mode, mean, median and range
 - measures of dispersion – normal curve, variance and standard deviation
 - role of probability
- use of correlation to establish association between variables
- sources of error in data and ways of reducing these
- the concept of statistical significance
- evaluation of and ways of improving research

Unit content

Syllabus Statement	Elaboration	Activities	Assessment opportunities
Self			
Biological influences/bases of behaviour			
<ul style="list-style-type: none"> • structure and function of the nervous system <ul style="list-style-type: none"> ▪ central nervous system ▪ brain ▪ spinal cord ▪ peripheral nervous system ▪ somatic nervous system ▪ autonomic nervous system – sympathetic, parasympathetic 	<ul style="list-style-type: none"> • Hierarchy of nervous system include in central (cerebrum and cerebellum and basic functions, spinal cord and the role of nervous transmission to and from the brain) • Peripheral nervous system – examples and functions of somatic and autonomic nervous system (voluntary vs involuntary) • Role of sympathetic and parasympathetic nervous system (link to hormones- adrenaline and noradrenaline, factors affecting behaviour) 	<p>Page 409-413 (Self Others and Society Stage1-3)</p> <p>Understanding the basic anatomy and physiology of the human body: The nervous system http://lrrpublic.cli.det.nsw.edu.au/lrrSecure/Sites/LRRView/7700/documents/5657/5657/5657_05.htm</p>	
<ul style="list-style-type: none"> • process of neural transmission <ul style="list-style-type: none"> ▪ role of synapses ▪ role of neurotransmitters – serotonin, dopamine 	<ul style="list-style-type: none"> • Review basic structure of neuron • Action Potential- neural transmission within the neuron (not Na/K pump) include resting potential and threshold, direction of impulse through the neuron • Neural transmission between neurons through the synapse (include parts of the synapse and mechanisms of re-uptake and role of enzymes) • Functions of serotonin and dopamine 	<p>Page 355, 411-412 (Self Others and Society Stage1-3)</p> <p>Plasticine models</p> <p>Neurons: How they work in the human brain https://www.youtube.com/watch?v=o9p2ou1lyCO</p>	

<ul style="list-style-type: none"> • roles of the four lobes of the cerebral cortex <ul style="list-style-type: none"> ▪ frontal lobe – Broca's area, primary motor cortex ▪ parietal lobe – primary sensory cortex ▪ occipital lobe – primary visual cortex ▪ temporal lobe – Wernicke's area, primary auditory cortex 	<ul style="list-style-type: none"> • Structure and function of the four lobes of the cerebral cortex and the areas as listed • Consequences of damages to the Broca's and Wernicke's area • 	<p>Page 91-93. 411 (Self Others and Society Stage1-3)</p> <p>Virtual brain:</p> <p>Match the part of the brain with the role they play and problems that can occur if the area is damaged.</p>	
<ul style="list-style-type: none"> • factors that affect behaviour, emotion and thought, including: <ul style="list-style-type: none"> ▪ heredity – the role of genetics ▪ hormones – the effects of adrenaline and noradrenaline ▪ psychoactive drugs – the effects of depressants, stimulants and hallucinogens 	<ul style="list-style-type: none"> • Define heredity • Using an example such as stress response, mental health (depression/schizophrenia) how the role of genetics in predisposition (stress diathesis model) • Define hormones • Explain how adrenaline and noradrenaline affect behaviour (use stress response) • Define psychoactive drug • Define depressants, stimulants and hallucinogen • Use examples to show the affect of drugs on behaviour, emotions and thoughts (expand on Year 11 alcohol, amphetamines, cannabis) other examples can include cocaine, nicotine, ketamine, LSD, MDMA, caffeine (energy drinks), methamphetamine 	<p>Page 174-175 (Self Others and Society Stage1-3) Page 176-177 (Self Others and Society Stage1-3)</p> <p>Drugaeware.com.au</p> <p>Adrenaline http://www.yourhormones.info/Hormones/Adrenaline.aspx</p>	

Cognition			
<ul style="list-style-type: none"> • psychological concepts and processes associated with memory and their relationship to behaviour <ul style="list-style-type: none"> ▪ multi store model of memory – Atkinson and Shiffrin, 1968 ▪ sensory register <ul style="list-style-type: none"> o duration, capacity, encoding ▪ short-term memory (working memory) <ul style="list-style-type: none"> o duration, capacity and encoding o working memory model – Baddeley and Hitch, 1974 ▪ long-term memory <ul style="list-style-type: none"> o duration, capacity and encoding o procedural memory o declarative memory – semantic and episodic ▪ recall, recognition, re-learning ▪ forgetting: retrieval failure, interference, motivated forgetting, 	<ul style="list-style-type: none"> • Define memory • Describe different ways of encoding e.g iconic and echoic • Draw the multi store model • Compare and contrast the multi store model of memory with the working memory model • Describe the role of central executive • Define the term encoding, storage and retrieval • Compare the duration, capacity and encoding of the three stores of memory • Define and give examples of procedural, declarative memory • Differentiate between implicit and explicit • Define and give examples of recall, recognition and re-learning • Define and give examples of the different types of forgetting 	<p>Page 260-265, 340-341 (Self Others and Society Stage1-3) Simple Psychology website. Multiple pages on memory.</p>	<p>Examining short-term memory through the serial position effect</p>

decay			
<ul style="list-style-type: none"> • theories and processes of learning <ul style="list-style-type: none"> ▪ classical conditioning ▪ operant conditioning ▪ observational learning 	<ul style="list-style-type: none"> • Define learning • Differentiate between associative and non-associative learning • Define classical conditioning including CS,UCS, CR,UCR,NS • Theories for classical conditioning could include: Pavlov, Little Albert-Watson • Define operant conditioning • Theories for operant conditioning could include: Skinner, Thorndike • Define observational learning • Bandura’s Bobo doll (also covered in developmental psychology Unit 4 Self) 	Perth Zoo- Monkey See Monkey Do Sniffy the virtual Rat Page 254-259 (Self Others and Society Stage1-3)	
<ul style="list-style-type: none"> • techniques for modifying behaviour <ul style="list-style-type: none"> ▪ token economies ▪ systematic desensitisation ▪ Cognitive Behaviour Therapy (CBT) ▪ positive and negative reinforcement, including rewards and punishment 	<ul style="list-style-type: none"> • Define behaviour modification • Explain how the listed techniques use the principles of learning to modify behaviour • Outline the procedures for the techniques listed. • Provide an example for the appropriate use e.g token economies in schools, systematic desensitisation for phobias, CBT- depression/anti-smoking • Contributions and limitations of each technique • Define reinforcement and punishment (positive 	Page 254-259,466-467 (Self Others and Society Stage1-3) Simple Psychology website.	

	<p>and negative)</p> <ul style="list-style-type: none"> • Give examples of each type of reinforcement and punishment 		
Others			
Relational influences			
<ul style="list-style-type: none"> • types of solutions to resolve conflict <ul style="list-style-type: none"> ▪ imposed ▪ distributive ▪ integrative 	<ul style="list-style-type: none"> • Define and give examples of each type of solution 	Scenario questions Page 369-373 (Self Others and Society Stage1-3)	
<ul style="list-style-type: none"> • techniques for resolving conflict <ul style="list-style-type: none"> ▪ mediation ▪ negotiation ▪ counselling 	<ul style="list-style-type: none"> • Define and give examples of each technique of solutions • Identify when each technique would be appropriate to use. 	Page 369-373 (Self Others and Society Stage1-3)	
<ul style="list-style-type: none"> • socialisation processes observed within families <ul style="list-style-type: none"> ▪ attachment – Harlow, Bowlby, Ainsworth ▪ features of different parenting styles – authoritative, authoritarian and permissive 	<ul style="list-style-type: none"> • Define socialisation • Describe Harlow’s Monkeys (1958) • Explain how Harlow’s findings influenced ideas of attachment • Explain Bowlby’s theory of attachment • Explain Ainsworth’s strange situation theory of attachment • Outline the types of attachment (secure, anxious avoidant, anxious resistant, disorganised) 	Page 214-218, 385-387 (Self Others and Society Stage1-3)	

	<ul style="list-style-type: none"> • Evaluate the impacts of attachments on adult relationships • Define critical period for attachment • Explain how culture impacts attachment (eg. Van Ijzendoorn and Kroonenberg) • Describe the main features of each of the parenting styles • Describe the impact on the child's behaviour 		
Communication			
<ul style="list-style-type: none"> • communication styles <ul style="list-style-type: none"> ▪ impact of social background – Bernstein, Labov ▪ examples of gender differences – Tannen 	<ul style="list-style-type: none"> • Define communication • Define communication styles with examples • List factors that influence communication styles • Outline Bernstein's study and findings • Outline Lavov's study and findings • Outline and give examples of Tannen's findings. 	Page 375-381 (Self Others and Society Stage1-3)	
<ul style="list-style-type: none"> • features of persuasive communication <ul style="list-style-type: none"> ▪ source of the message ▪ nature of the communication ▪ characteristics of the audience 	<ul style="list-style-type: none"> • Define persuasive communication • Describe the three features of persuasive communication are used. 	Page 375-381 (Self Others and Society Stage1-3) Look at advertisements	
<ul style="list-style-type: none"> • features and limitations of theories of language development 	<ul style="list-style-type: none"> • Define language • Define innate 	Page 375-381 (Self Others and Society Stage1-3)	

<ul style="list-style-type: none">▪ innate and learned behaviours – Chomsky, Bruner	<ul style="list-style-type: none">• Explain Chomsky’s theory of language acquisition• Explain Bruner’s theory of language development• Explain how they interact together• Explain the role of referencing, scaffolding and parent/primary care provider.• Describe the limitations of each theory		
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