

PSYCHOLOGY

ATAR YEAR 12

UNIT 3

2018

Marking Guide

Section One: Research Methods

20% (23 marks)

This section has **two (2)** questions. Answer **all** questions. Write your answers in the spaces provided.

Spare pages are included at the end of this booklet. They can be used for planning your responses and /or as additional space if required to continue an answer.

- Planning: If you use the spare pages for planning, indicate this clearly at the top of the page.
- Continuing an answer: If you need to use the space to continue an answer, indicate in the original answer space where the answer is continued, i.e. give the page number. Fill in the number of the question that you are continuing to answer at the top of the page.

Suggested working time: 30 minutes

Question 1 (12 marks)

Brendon, a research psychologist, was employed by a leading pharmaceutical company to investigate the effects of a new medication for children with ADHD (attention deficit hyperactivity disorder). He decided to advertise for volunteers at a local hospital. He received 30 expressions of interest. He decided to split the 30 volunteers into two groups. Group 1 was given the medication. Group 2 was given a sugar pill which looked like the medication. Brendon collected data for two weeks. His data included observations, the use of a checklist from the children's parents and school teachers, as well as the children's heart rate. Brendon found a difference between the two groups data, with Group 1 demonstrating greater benefits. Brendon however his p-value was >0.05.

a) List **one** ethical guideline Brendon followed.

(1 mark)

Description	Marks
Voluntary participation	0-1
Total	1

b) List **one** other ethical consideration Brendon should have followed.

(1 mark)

Description	Marks
Any of the following:	0-1
Informed consent	
Confidentiality	
Privacy	
Anonymity	
Withdrawal Rights	
Total	1

c) Identify the independent variable.

Description	Marks
ADHD medication or sugar pill	0-1
Total	1

d) Group 2 was given a sugar pill. What is another name in psychological terms for a sugar pill? (1 mark)

Description		Marks
Placebo		0-1
	Total	1

e) Identify the experimental group and the control group.

(2 marks)

Description	Marks
Experimental group - Group 1 (1)	0-2
Control group - Group 2 (1)	
Total	2

f) Provide **one** objective quantitative measure Brendon collected, and **one** subjective quantitative measure he collected. (2 marks)

Description	Marks
Objective quantitative measure – heart rate (1)	0-2
Subjective quantitative measure – observations using a checklist (1)	
Total	2

g) What conclusions can Brendon draw from his study?

(3 marks)

Description		Marks
The results were not statistically significant (1). The IV did not cause the intended effect on the DV (1). The probability of chance playing a role was greater than 5% (1).		0-3
	Total	3

h) Outline one source of error which may have affected the results.

Description	Marks
Any of the following:	0-1
Small sample size (1)	
The study only lasted two weeks (1)	
The data collection techniques may not have been sufficient to assess	
the effects of the medication (1).	
Total	1

Question 2 (11 marks)

a) What is the difference between scientific and non-scientific inquiry? (2 marks)

Description	Marks
Scientific inquiry is a process of developing an explanation of a question in the natural world by testing, investigating and collecting data that will either support or refute your original idea of what's going on (1). Whereas non-scientific inquiry is one that does not use a systematic collection of evidence (1).	0-2
Total	2

b) Provide an example of a scientific investigation and suggest why it is scientific. (2 marks)

Description	Marks
Any relevant response, such as: Pavlov's study with dogs (1). He used a systematic approach to planning, conducting and reporting on data (1).	0-2
Total	2

c) What is the difference between experimental and non-experimental research methods? (2 marks)

Description	Marks
An experiment is a study that investigates a cause-and-effect relationship between two or more variables (1). Whereas non-experimental methods describe behaviour, but do not let us identify the cause or reasons for the behaviour (1).	0-2
Total	2

d) List one similarity that experimental and non-experimental research methods share. (1 mark)

Description	Marks
They both provide solid, scientific data when correctly executed and interpreted.	0-1
Total	1

e) A researcher wanted to know what type of physical activity contributes towards positive mindfulness. She decided to survey women at her local Pilates, Boot-camp and swimming pool to see who experienced mindfulness. Is the researcher gathering experimental or non-experimental data? State a reason for your answer. (2 marks)

Description		Marks
Non-experimental (1). The researcher is not finding a cause for mindfulness, only looking into variables that may influence it (1).		0-2
	Total	2

f) Outline **two** participant variables that could affect the results the researcher gathers.

(2 marks)

Description	Marks
Responses can include but are not limited to:	0-2
The women may participate in more than one of the activities she is researching (1).	
There may be other factors such as sleep that influence their level of mindfulness (1).	
The women may be having a bad day on the day they complete the survey (1).	
They may not give honest responses (1).	
Total	2

End of Section One

Section Two: Short Answer 55% (90 Marks)

This section has **seven (7)** questions. Answer **all** questions. Write your answers in the spaces provided.

Additional working space pages at the end of this Question/Answer booklet are for planning or continuing an answer. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being panned/continued on the additional working space page.

Suggested working time: 90 minutes

Question 3 (15 marks)

Kayla has been preparing for her school athletics day for months. She plans to compete in the 100m race, the 800m race and high jump. On the day of the athletics carnival she finds herself stressing out over her events. She can't sit still and paces prior to every event. She is so nervous she begins to sweat and feels like she needs to go to the toilet even though she's just been.

a) Using the above scenario suggest **two** examples of where Kayla's somatic nervous system has been activated. (2 marks)

Description	Marks
Any two of the following:	0-2
Preparing and practicing for her events (1).	
Pacing prior to an event (1).	
Walking to the toilet (1).	
Total	2

b) What is the autonomic nervous system responsible for?

(1 mark)

Description		Marks
The autonomic nervous system is responsible for the automatic		0-1
functioning of our internal organs.		
	Total	1

c) Provide **two** examples from the scenario that demonstrates activation of Kayla's autonomic nervous system. (2 marks)

Description		Marks
When she started to sweat (1).		0-2
Feeling like she needed to go to the toilet (1).		
	Total	2

d) List **one** other physiological response that could suggest Kayla's autonomic nervous system was activated. (1 mark)

Description Marks

Response can include but is not limited to: Pupils dilate Heart rate increases	0-1
Total	1

e) Explain the difference between the sympathetic and the parasympathetic divisions of the nervous system. (2 marks)

Description	Marks
The sympathetic nervous system is responsible for the body's response	0-2
to a perceived threat (1). The parasympathetic nervous system is	
responsible for returning the body to equilibrium (1).	
Total	2

f) Provide a suggestion as to when the sympathetic and the parasympathetic divisions would be used in Kayla's situation, and comment on how calm or nervous Kayla might be feeling at each stage. (4 marks)

Description	Marks
Kayla's sympathetic nervous is activated prior to an event (1), where she	0-4
feels nervous and anxious (1). After Kayla has competed in her events her parasympathetic nervous system is activated (1) which will leave Kayla feeling calm (1).	
Total	4

g) Which part of Kayla's nervous system is responsible for receiving the information, processing the information and coordinating an appropriate response? (1 mark)

Description	Marks
The brain	0-1
Total	1

h) List the **two** divisions of the nervous system.

(2 marks)

Description	Marks
Central nervous system (1);	0-2
Peripheral nervous system (1).	
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Question 4 (16 marks)

Tom was cooking a curry in his oven safe pan. He kept it warm in the oven until his guests arrived. Tom, distracted by his guests, proceeded to take the pan out of the oven with his bare hands. There

was a loud bang when the curry hit the floor and Tom's guests ran to the kitchen to witness Tom jumping up and down, holding his painfully burnt hand, surrounded by curry all over the floor.

a) Name the **four** lobes of the brain and suggest how each lobe responded in Tom's scenario. (8 marks)

Descrip	tion	Marks
i.	Lobe 1: Frontal lobe (1) – dropped the pan (1)	
ii.	Lobe 2: Parietal lobe (1) – awareness of where his limbs are	
	(1)	0-8
iii.	Lobe 3: Occipital lobe (1) – vision (1)	
iv.	Lobe 4: Temporal lobe (1) – hearing (1)	
	Total	8

b) For each lobe named in Q 4a), identify **one** primary area. Include an example of information it registered in Tom's scenario.

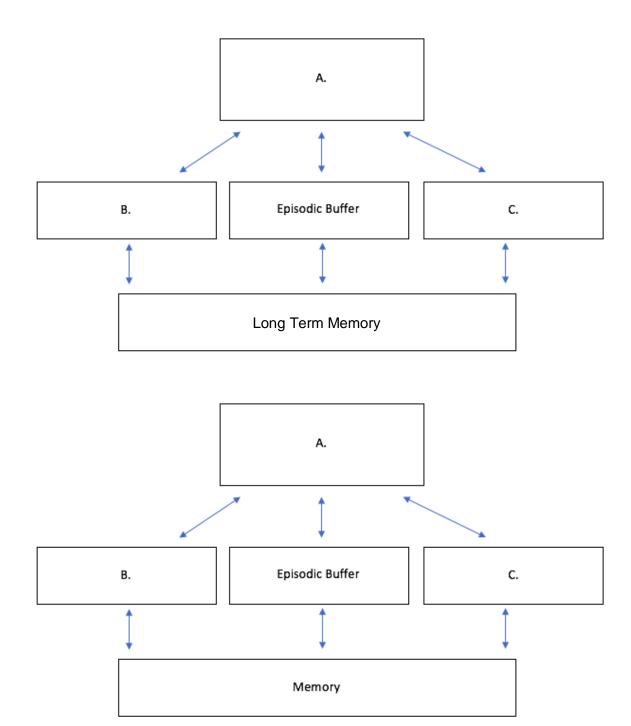
(8 marks)

Description		Marks
i.	Primary area 1: motor cortex (1) – jumping up and down (1)	
ii.	Primary area 2: primary sensory cortex (1) – sensation of pain	
	from his burning hand (1)	0-8
iii.	Primary area 3: primary visual cortex (1) – seeing the curry all over the kitchen floor (1)	
iv.	Primary area 4: primary auditory cortex (1) – hearing the pan drop to the floor (1)	
	Total	8

Question 5 (16 marks)

a) Label the **three** components of the working model of memory. (3 marks)

See next page



Description	Marks
A. Central executive (1).	0-3
B. Phonological loop (1).	
C. Visual-spatial sketch pad (1).	
 Note responses to B and C are interchangeable 	

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b) Name the theorists who discovered this model.

(2 marks)

Description	Marks
Baddeley (1) and Hitch (1)	0-2
Total	2

c) Identify **two** differences between the working model of memory and short-term memory as outlined by the multistore model of memory. (2 marks)

Description	Marks
Responses include but are not limited to:	0-2
Short term memory (STM) is a unitary system (single store) whereas working memory (WM) is not (it has many systems) (1). STM over emphasises the use of rehearsal whereas WM does not (1).	
Total	2

d) According to the working model of memory, we are said to have an 'inner voice'. Explain how this inner voice works and how it would respond to a mobile phone number that had been written down.

(3 marks)

Description	Marks
The articulatory control process is linked to speech production and acts as an inner voice rehearsing information from the phonological loop (1). It converts written material, such as a mobile phone number, into an articulatory code (1) that our inner voice repeats like a tape loop (1).	0-3
Total	3

e) The multistore model of memory includes a sensory memory and a long-term memory. Identify the differences between the two systems in terms of their duration, capacity and coding.

(6 marks)

Description		Marks
i.	Duration:	0-6
	SM – 3-4 seconds (1)	
	LTM – Infinite (1)	
ii.	Capacity:	

iii.	SM – Limited (1) LTM – Unlimited (1) Coding: SM – Sensory (1) LTM – Semantics (1)	
	Total	6

Question 6 (8 marks)

a) Kristy is wanting to toilet train Bob, her three-year-old son. Suggest an appropriate behaviour modification technique she could try that uses the principles of operant conditioning. (1 mark)

Description	Marks
Token economy OR positive and negative reinforcement.	0-1
Total	1

b) Suggest how Kristy could use this type of operant conditioning to encourage and discourage the behaviour she is after. (3 marks)

Description	Marks
Token economy: She could use a star chart to reward Bob every time he uses the toilet (1). She could add a star every time he uses the toilet correctly (1). Once Bob reaches a certain number of stars they can be traded in for a toy of his choice (1). OR Positive and negative reinforcement: She can add something Bob likes (e.g. praise, food etc) to increase the desired behaviour (1), or take something away Bob does not like (e.g. nap time) (1), both of which aim to increase the desired behaviour of Bob learning to use the toilet on his own (1).	0-3
Total	3

c) Sophie and Mark had been dating for two years. Out of the blue Sophie decided to end the relationship. Mark was shocked by the news and took it hard. He started doubting himself and questioning what was wrong with him. He wasn't sleeping well and realised this change was

affecting him more than he'd like. He decided to see a psychologist who suggested using cognitive behavioural therapy (CBT).

i. Suggest an unwanted behaviour Mark was experiencing and how CBT could be used to change this. (2 marks)

Description	Marks
Not sleeping well (1).	0-2
He could keep a stress journal that he writes in prior to going to bed so	
that he doesn't have unwanted thoughts keeping him up at night (1).	
Total	2

ii. Suggest an unwanted thought Mark was experiencing and how CBT could be used to change this. (2 marks)

Description	Marks
Self-doubt (1).	0-2
CBT could be used in getting Mark to focus on his strengths and what he	
likes about himself (1).	
Total	2

Question 7 (14 marks)

a) Define attachment. (1 mark)

Description	Marks
The close emotional bond between a child and a caregiver.	0-1
Total	1

b) Identify the aim of Bowlby's and Harlow's studies on attachment.

(2 marks)

Descrip	otion	Marks
i.	Bowlby - To investigate the long-term effects of maternal	0-2
	deprivation on people in order to see whether delinquents	
	have suffered deprivation (1).	
ii.	Harlow – To investigate whether attachment is formed by a	
	carer providing food or tactile comfort (1).	
	Total	2

c) What did they each conclude?

(2 marks)

Descrip	tion	Marks
i.	Bowlby - maternal separation/deprivation in the child's early life caused permanent emotional damage (1)	0-2
ii.	Harlow - Attachment is not just based on having physical needs met but is based on having emotional needs met (contact comfort) (1).	
	Total	2

d) Mary Ainsworth conducted research on attachment. Name and explain the **three** types of attachment identified from her research.

(6 marks)

Description	Marks
Type A anxious (insecure) - avoidant (1) – the child ignores their mother,	0-6
fails to look at them, and tries to not be close (1).	
Type B secure (1) – the child uses the mother as a secure base (1).	
Type C anxious (insecure ambivalent) - resistant (1) – the child resists	
their mother, then clings to them, whilst also kicking and pushing her	
away (1).	
Total	6

e) Which type of attachment is most common in:

(2 marks)

Descrip	tion	Marks
i.	Individualistic cultural groups – Type B – secure attachment (1)	0-2
ii.	Collectivist cultural groups – Type B – secure attachment (1)	
	Total	2

f) Provide **one** criticism of Ainsworth's study on attachment.

Description	Marks
Responses include but are not limited to:	0-1
Her methodology doesn't accurately assess attachment.	
The temperament of the child leads to attachment types.	
The temperament of the child and the way the parent responds leads to	
their attachment type.	

Total	4
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Question 8 (9 marks)

a) Ingrid and Monica allowed their 15-year-old daughters to sleep over at each other's houses.
 Much to their disgust they found out that both of their daughters had lied and instead of staying at each other's houses they went to an unsupervised party. Ingrid and Monica had very different ways of parenting. Ingrid identifies with an authoritative parenting style whereas Monica identifies with a permissive style. Provide a suggestion as to how both Ingrid and Monica would respond to their daughters' irresponsible behaviour, and how this would affect the daughter's future behaviours.

Description	Marks
Response includes but is not limited to:	0-6
 Ingrid would have given clear guidelines and expectations to her daughter. Ingrid would be responsive and would listen to her daughter's explanation of why she did the wrong thing (1). Ingrid's discipline method would be supportive rather than punitive (1). This would encourage her daughter to develop independence, self-control and self-regulation (1). 	
ii. Monica is an indulgent mother who places few demands on her daughter (1). She would not discipline her daughter as she communicates more like a friend than parent (1). This leads to relatively low expectations of maturity and self-control on her daughter's behaviour (1).	
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b) List one other style of parenting and describe it.

(3 Marks)

Description Marks

Authoritarian (1). They demonstrate high control (1) and low responsiveness (1).		0-3
	Total	3

Question 9 (12 marks)

a) Name **two** theorists whose research focused on communication styles as impacted by a person's social background. (2 marks)

Description	Marks
Bernstein (1)	0-2
Labov (1)	
Total	2

b) Outline the main differences between these theorist's research and findings.

(4 marks)

Description	Marks
Bernstein focused on individuals of a certain social class using a restricted or elaborate code to communicate (1). He believed children in working-class families had a language deficit due to only using the inferior restricted code (1). Whereas Labov based his work on black children from New York, who spoke Black English Vernacular (BEV) (1). He believed BEV was just as complex and rule-governed as standard English and should be considered different not deficient (1).	0-4
Total	4

c) Outline **one** similarity between these two theorist's research.

Description	Marks
They both researched how a person's social background impacts their communication style.	0-1
Total	1

- d) Max was giving a presentation at a work conference. Max enjoyed taking centre stage and gaining everyone's attention. Once the presentation was over Max mingled with members of the crowd and was seen to make confirmatory tones such as 'mmm' to indicate listening.
 - i. Based on Max's communication style provide an argument which suggests Max is a male. (1 mark)

Description		Marks
He enjoyed taking centre stage and gaining everyone's attention.		0-1
	Total	1

ii. Based on Max's communication style provide an argument which suggests Max is a female. (1 mark)

Description		Marks
She used confirmatory tones such as 'mmm' to indicate listening.		0-1
	Total	1

e) Name the theorist who suggests there are gender differences with the way males and females communicate. (1 mark)

Description	Marks
Deborah Tannen	0-1
Total	1

f) Name the **two** communication styles this theorist suggests males and females use. (2 marks)

Description	Marks
Males – report talk (1)	0-2
Females – rapport talk (1)	
Total	2

End of Section Two

Section Three: Extended Answer

25% (45 Marks)

This section contains **two (2)** questions. You must answer **both** questions.

Pages are included at the end of the Question for planning and writing your answers.

- Planning: If you use a page for planning, indicate this clearly at the top of the page.
- Answering the question: In the pages provided indicate clearly the number of the question you are answering.
- You should refer to relevant psychological concepts, theories and research in your answer.

Suggested working time: 60 minutes.

Question 10 (20 marks)

16-year-old fraternal twins Doug and Matt get along but see themselves as very different people, both physically and socially. They socialise in different circles at school, and engage in different extracurricular activities. Doug, who is lanky with long hair and acne plays the guitar, has a few close friends, and does well at school even though he doesn't study that hard. Matt on the other hand has a muscular build, clear skin and enjoys playing a range of team sports. He has a wide circle of friends and also does well at school even though he doesn't study that hard. Both boys find themselves at the same party on the weekend. Doug decides to have a couple of alcoholic drinks, Matt on the other hand is offered ecstasy and decides to accept. The drugs have very different effects on their behaviour, emotions and thoughts.

Discuss how hereditary and the use of psychoactive drugs would affect the behaviour, emotions and thoughts of Doug and Matt.

Question 11 (25 marks)

John and Mary's son Tyson is 15-month-old. They are concerned about his language development. They read to him every day, pointing to the words and pictures as they read. Their older son Bob, who is 6 years old, has also started reading to Tyson. Bob, however, points to the pictures and asks 'What?' Tyson has started saying the word 'wha' as he points to things. He has started repeating this behaviour, pointing at objects around the house. The level of intensity as he says 'wha' gets louder

and louder until he is yelling. John and Mary then tell Tyson off for his yelling, using a stern tone which frightens Tyson.

Explain Tyson's behaviour using theories and processes of learning as well as language development.

In your response discuss:

- The theory of observational learning
- The theory of operant conditioning
- Learnt behaviours of language development
- Refer to empirical evidence

Question 10 (20 marks)

Description	Marks
Definitions	2
Maximum of two marks for defining relevant concepts: O Hereditary (1), psychoactive drugs (1)	0–2
Hereditary: The transmission of genes / DNA from parent to child. Doug and Matt are fraternal twins, therefore they share the same amount of DNA as two siblings. Their DNA determines what they look like as well as certain types of behaviour, known as ones "genetic code."	
Psychoactive drugs: A psychoactive drug is a chemical substance that acts primarily upon the central nervous system where it alters brain function, resulting in temporary changes in perception, mood, consciousness and behaviour.	
Application - Behaviour	5

(1 mark for defining behaviour; 1 mark for applying hereditary to each brother; 1 mark for applying psychoactive drugs to each brother).	
Definition: Any observable action made by a person or animal. Actions and responses that we can directly observe (overt).	
 Hereditary Different extra curricula activities – could be explained through not having identical DNA – influence of nurture Both engage in minimal study yet experience similar academic abilities – could be explained through having similar DNA Psychoactive drugs Doug will lose his inhibitions as a result of drinking alcohol and his nervous system slowing down. He may become uncoordinated or possibly aggressive Matt will experience an increase in his nervous system as a result of taking ecstasy. He may be more active and more likely to get up and dance, experiencing a closeness with others. 	0-5
Application - Emotion	5
Definition: Emotion is a complex state of feeling, resulting in physical and psychological changes that influence thought and behaviour.	
 Hereditary Difference in DNA means they look different, this may affect how they view themselves Self-esteem, self-worth and identity will come from how they look, how they feel about themselves and the activities they engage in E.g. Doug may have a low self-esteem due to his acne; few friends. Matt may have a high self-esteem due to his build and his wide circle of friends Psychoactive drugs Doug – he may express his feelings, mask his feelings or avoid his feelings Matt – feelings of euphoria at the time of taking ecstasy but later may experience feelings of anxiety 	0-5
Application - Thought	5
(1 mark for defining thought / cognition; 1 mark for applying hereditary to each brother; 1 mark for applying psychoactive drugs to each brother).	0-5
Definition:	

The mental representation of information processing.	
 Heredity The brothers think they are very different Both think studying is not important or necessary as they don't engage in it Doug – thinks music and a few friends are important, introverted Matt – thinks a wide circle of friends and sports are fun and enjoyable; extrovert The boys engage in different types of behaviour; Doug guitar and Matt sports – this would form part of their identity Psychoactive drugs Doug – thinking becomes slower and disoriented Matt – distorted perception in time; elevated alertness 	
Quality of Extended response	3
Well-developed sentences and paragraphs and consistent use of appropriate psychological language and correct spelling, grammar and punctuation	3
Coherent response with adequate spelling, grammar, sentence structure and paragraph structure	2
Single paragraph response or lack of paragraph structure and/or poor sentence structure and/or very colloquial language and/or poor English expression and/or many spelling errors	1
Overall Total	20

Question 11 (25 marks)

Description	Marks
Introduction	3
Maximum of three marks for: • Defining / discussing main concepts e.g. behaviour / language development • Introducing main theories / theorists e.g. Bandura, Skinner, Bruner	0–3
Observational Learning	4
Maximum of two marks for describing the theory (1) and naming the theorist (1)	0-2
Maximum of two marks for application	0-2
 Description: Albert Bandura - Bobo doll Bandura believed that behaviour is learned through observing models (parents, teachers, peers, siblings) and imitating that behaviour at a later time. Application: May include but not limited to: 	
Bob has modelled off his parents; Tyson is modelling off Bob	

Tyson is unable to communicate as well as his parents and brother Bob. He tries to mimic Bob but cannot say 'what' correctly and says 'wha' instead. As he cannot communicate as effectively he gets frustrated and begins to yell.	
Operant Conditioning	4
Maximum of two marks for describing the theory (1) and naming the theorist (1)	0-2
Maximum of two marks for application	0-2
 Skinner - Pigeons Behaviours are learnt through punishment and reinforcement, can be positive or negative Application: May include but not limited to: Tyson is rewarded through experiencing story time every day with his parents and brother Bob He is punished for yelling through his parents telling him off using a stern voice 	
Language Development	4
Maximum of two marks for describing the theory (1) and naming the theorist (1)	0-2
Maximum of two marks for application	0-2

Description:

- Jerome Bruner longitudinal study of two boys, from 3mths 24mths
- Language is learnt language acquisition support system (LASS)
- Language develops innately through LASS and LAD (language acquisition device).
- Parent's guide and support children's emerging language though interaction

Application:

May include but not limited to:

- Scaffolding allows parents to raise expectations about language development e.g. Bob points to the pictures and asks 'what?'
- Reference how people manage and direct each other's attention by linguistic means (joint attention and book reading); e.g. both Tyson's parents and brother Bob demonstrate joint attention through the book reading that is done daily.

demonstrate joint attention through the book reading that is done daily.	
Use of Psychological Evidence - Quantity	3
Many statements are supported by relevant psychological evidence (e.g. name of researcher/theorist/theory or example of a study	3
Several statements are supported by relevant psychological evidence (e.g. name of researcher/theorist/theory or example of a study, or example from real life)	2
One or two statements are supported by relevant psychological evidence (e.g. name of researcher/theorist/theory or example of a study, or example from real life)	1
Use of Psychological Evidence - Quality	4
Two or more examples of detailed relevant psychological evidence (e.g. 3-4 sentences about a theory and/or specific research study method and findings)	4
One example of detailed relevant psychological evidence (e.g. 3-4 sentences about a theory and/or specific research study method and findings)	3
One or more examples of psychological evidence, including some description (e.g. 1-2 sentences)	2
Psychological evidence consists of names/statements only, without description (e.g. name of study, name of researcher, name of theory)	1
Quality of Extended response	3
Well-developed sentences and paragraphs and consistent use of appropriate psychological language and correct spelling, grammar and punctuation	3
Coherent response with adequate spelling, grammar, sentence structure and paragraph structure	2
Single paragraph response or lack of paragraph structure and/or poor sentence structure and/or very colloquial language and/or poor English expression and/or many spelling errors	1
Overall Total	25