

ASSESSMENT MASTERY MARK SCHEME

SECTION A: Cognitive Development

Answer all questions

1.

Piaget's Stages

Piaget believed that children's minds develop in the same way all over the world. He said a child's mind develops in stages which are fixed by age. The first stage lasts from birth to two years and the fourth stage occurs at eleven years onwards.

Need more help?

Check out pages 32-35 of your textbook

Using the source:

(a) Identify the phrase that refers to the idea of **universal stages**.

1 mark for reference to 'all over the world'

[1]

(b) Identify the phrase that refers to the idea of **invariant stages**.

1 mark for reference to 'fixed by age'

[1]

2. Name **Piaget's four stages of cognitive development**.

Need more help?

Check out pages 32-35 of your textbook or use the study charts on the website.

sensori-motor

pre-operational

concrete operational

formal operational

Marker's Comments – Question 1 (a)

Only accept full terms.

Do accept 'operation(s)' instead of 'operational' but not 'op'.

NB Stages do not have to be listed in the correct order.

[4]

3. Piaget's theory is just one explanation of cognitive development.

Outline **one other explanation of cognitive development**.

Need more help?

Check out pages 39-43 of your textbook

The Learning Theory should be either Dweck or Willingham.

1 mark for each key feature of Dweck's theory (e.g. fixed/growth mindset, attitude, self-esteem, effort).

OR

1 marks for each feature of Willingham's theory (e.g. learning styles, meaning for learning, long-term memory).

- All 3 marks can be awarded for the description of one feature if it is well explained.
- e.g. 'Dweck argued that people have two types of mindset: fixed (intelligence is innate) (1) and growth (intelligence can be developed) (1). Dweck suggests that a positive attitude and effort (growth mindset) enables children to fail and learn new information and skills, whilst still developing their self-esteem. (1)'

Marker's Comments – Question 1 (a)

Only award marks where there is some coherency between different features i.e. do not credit 3 marks for a list of features.

Only credit what Dweck or Willingham believed.

[3]

4. (a) Identify which of the following are part of brain development.

- A neurons and blood cells
- B neurons and ventricles
- C neurons and synapses
- D synapses and dopamine

Your answer

C

[1]

(b) Identify which of the following statements describes a synapse.

- A gap between two nerve cells
- B joining between two nerves
- C junction between two cells
- D where a nerve ends

Your answer

A

[1]

(c) Identify the area of the brain that controls movement.

- A cerebellum
- B forebrain
- C hypothalamus
- D limbic system

Your answer

A

[1]

5. A psychologist wanted to replicate Blackwell et al.'s study into fixed and growth mindsets. She used 300 American students from her college in New York as indicated in the table below:

Age:	Number of:	
	Male Students	Female Students
13-14	49	51
15-16	55	45
16-17	45	55

Explain **one** strength of the sample used in this study

Need more help?

Check out pages 44-47 of your textbook

A strength of the sample is that all participants were American/ came from New York (1). This means findings can be generalized to Americans/people from New York (1).

A strength of the sample is that all participants were students (1). This means findings can be generalised to students (1). A strength of the sample is that it was large in number (1). This means the sample is likely to be representative so the findings can be generalised (1).

Marker's Comments – Question 5 (a)

1 mark for a outlining an accurate strength

1 mark for an explanation of why this is a strength in the research (generalisation of findings, representative of target population etc.)

6.

School reports

A teacher wrote the following:

Hannah understands that her talents and abilities can be developed through effort and persistence. She tries to improve by working hard at all times.

Lucia believes her basic ability, intelligence and talents are unchangeable traits. She tries to be clever all the time.

Dweck proposed that individuals have either a fixed or a growth mindset.

(a) Using the source, identify which girl Dweck would suggest has a fixed mindset.

Lucia

(b) Outline how the teacher could use praise to develop a growth mindset.

If the teacher congratulates a pupil for the effort (1) they have put into a piece of work, they will develop a love of learning and develop a growth mindset (1).

If the teacher praises a pupil for studying hard, using good learning strategies and showing persistence (1), they will develop a love of learning and a growth mindset (1).

Other appropriate statements should be credited.

Marker's Comments – Question 1 (a)

1 mark for a brief statement suggesting how praise can develop a growth mindset. 1 mark for explaining how the teacher could use praise to develop a growth mindset.

Need more help?

Check out pages 39-43 of your textbook

b

7. Piaget (1952) carried out an experiment using rows of counters.

Complete the passage on Piaget's study by filling in the gaps.

You must choose a different term for each gap from the list below.

conservation decentration reversibility concrete formal pre

Piaget tested the **Conservation**..... of number by using rows of counters. When he stretched out a row of counters, children in the **pre**..... operational stage thought there were more counters in the row. However, children in the **concrete**..... operational stage knew that the properties of the row could not change.

[3]

Need more help?

Check out pages 32-35 of your textbook

8. Evaluate Piaget's experiment to investigate cognitive development.

Need more help?

Check out pages 36-37 of your textbook

4 marks for 2-3 detailed and accurate limitations: artificiality of setting, task not being child friendly, the problem of asking the same question twice, unrepresentative sample (both in size and culture).

e.g. 'It lacked ecological validity as it was conducted in an artificial setting; we do not know if children would have responded the same in a realistic, natural setting, which affects the validity of the results' (2 marks),

'The sample was not representative as he used a small group of his own children, making it difficult to generalize to a wider population' (2 marks),

'children may have been thrown by being asked the same question twice as this usually indicates that the first answer was incorrect. This could mean that they gave dishonest responses and thus affected the validity of the results' (2 marks)

Marker's Comments – Question 1 (a)

Be careful not to credit descriptions of the study e.g. 'he used a small sample', 'he asked the same question twice', 'he used a laboratory experiment'

[4]

9. Research into cognitive development can be applied to educating children.

Need more help?

Check out pages 48-50 of your textbook or the applications page on the website.

From the list below, identify three applications of research into cognitive development:

[3]

Show your answer by ticking the relevant boxes.

- Teaching children in key stages
- Teaching children in single sex classes
- Making children wear uniforms
- Allowing children to learn for themselves
- Challenging children's thinking
- Punishing bad behaviour

10.

Different Abilities

- Abdul is able to see things from Pippa's point of view but Pippa only sees things from her own point of view.
- Eleanor knows to still chase after her pet cat even when he disappears into the kitchen.
- Kelsey sees that even though her glass is shorter than her sister's, they both have the same amount of juice.

Need more help?

Check out pages 32-35 of your textbook or the website.

Using the source:

- (a) name the child who shows object permanence.
Eleanor [1]
- (b) name the child who shows egocentrism.
Pippa [1]
- (c) name the child who shows conservation.
Kelsey [1]

11. Describe and evaluate how Piaget's theory explains cognitive development

Need more help?

Check out pages 32-35 of your textbook or the website.

4 marks for a detailed description of the overall theory and the FOUR stages.

Piaget observed how children solved problems and said that as scientists they develop thinking in 4 stages. The stages were **invariant** i.e. happen in the same order and **universal** i.e. happen to every child regardless of culture (1)

The Sensori-motor stage (from birth to two years-old), sees babies learning from information through their senses. The baby develops **object permanence** (can retain an image) at this stage as they know object still exists even when not seen/sensed (1)

The Pre-Operational stage (two to seven years-old), sees features such as **animism, reversibility, symbolic thinking and egocentrism** (only seeing things from their own viewpoint)(1)

The Concrete-operational stage (from seven to eleven years-old), sees the child developing **linguistic humour and conservation** (knowing that something is the same even though the appearance might change) (1)

The final stage is the formal operational stage age 11+. Here Piaget said that children learned abstract and **hypothetical** thinking (can make predictions about the future events).(1)

Continued over page

4 marks for a more developed and detailed response with 2-3 criticisms

e.g. 'Piaget's stages are too rigid (1) and do not allow for children developing at their own pace (1),

'Piaget said the stages were universal (1) but, for example, Aboriginal children seem to enter the concrete operational stage earlier because of the demands of their environment (1)'.
'The theory is biased towards Western ideas (1) because it over-emphasises the importance of logical thinking (1)' (universal stages),

'The theory does not allow for the fact that children may think at many levels at the same time (1) rather than being stuck in one stage (1)'(invariant stages), 'critics say children are apprentices not scientists (1) and need input from others to develop (1)' (natural process)

'Children may not develop in set stages (1) and therefore it ignores individual differences (1)', 'children may flip between different stages (1) for example, thinking egocentrically one moment and showing empathy in the next (1)',

'It only sees cognitive development as a process of maturation (1) and underplays the effect of the environment (1)'

Marker's Comments – Question 1 (a)

AO2: Do not simply credit naming of features e.g. object permanence, body schemas.

Do not simply credit age or timing of stages. Focus should be on what children develop or can do by the end of the stage rather what they cannot do.

If the candidate names two or more features (rather than outlines) award a maximum of 2 marks e.g. hypothetical thinking, abstract thinking, scientific/logical thinking. The additional marks would require an outline of another feature again. Credit features only if they are linked to the correct stage

AO3: Do not credit descriptive comments alone, but do back credit such comments if they are related to an evaluative point, which receives credit. Do credit statements that negate features e.g. 'children do not develop in a fixed order' or 'children's minds do not develop in the same way across the world'.

Do not credit the idea that children can skip stages or go through them in a different order but do credit; different pace, not reaching final stage moving backwards and forwards between stages.

Examples/evidence which illustrate the criticism can be credited.

11. Describe and evaluate how Piaget's theory explains cognitive development (10 marks)

Piaget believed that cognitive development happens in stages which are invariant (fixed by age) and universal, meaning all children go through them in the same way.

The first stage is ^{the sensorimotor stage,} from birth to the age of 2; children in this stage develop their body schema, e.g. recognising themselves in mirrors/photos; motor-coordination, e.g. hand to mouth for eating; and object permanence, e.g. knowing a toy is under a blanket even if they can't see it.

Piaget states that in the second stage, the pre-operational stage at ages 2-7 yrs old, children ^{can start} exhibit animism to understand symbols and exhibit animism, where they believe inanimate

objects, e.g. toys, to be alive like them. They also have problems with reversibility, as they cannot think backwards, and egocentrism; they are only able to see things from their own perspective and cannot see situations from other people's point of view. At the end of this stage

^{is} ^{t.} they start to overcome egocentrism and de-centre. In the third stage, the concrete operational stage lasting ~~from ages~~ ^{from ages} 7 to 11 yrs, children drop animism, can think backwards and don't show egocentrism. They develop linguistic humour, e.g. play on words, and will repeat these to everyone. They are also able to conserve, e.g. by knowing 2

beakers hold the same amount of water even if one is taller and thinner. They also understand seriation as they can put objects in order, e.g. their toys from smallest to biggest.

lastly is the formal operational stage for ages 11+. Children in this stage can think hypothetically and show symbolic and abstract thinking. They are able to apply knowledge to discuss/debate about subjects in class, e.g. abortion.

This study also has a number of criticisms. Piaget claims all children develop in the same way and same pace; however aboriginal children develop through to the concrete operational stage much faster as they need to in order to survive. Piaget states the stages are fixed and ~~repeat~~

Piaget also ignored the thinking behind development, as it is not strictly biological. He ignored different types of thinking too, such as creative thinking in the arts, as he solely focused on logic and problem solving.

His theory also only states the different stages without explaining how children move from one stage to the next. Reasons for why, as well as how things happen are important ~~is~~ when proposing a theory.

12. Use your knowledge and understanding from across the psychology course to explain how far you agree with the following viewpoint:

“Often it is not so much the kind of person a human is as the kind of situation in which he/ she finds themselves that determines how they will act.”

In your answer you should refer to **Learning Theories of Development** (Dweck and Willingham) and compare this to the **Social Learning Theory** for Criminal Psychology.

AND evaluate the **limitations of each theory** in explaining the nurture side of the nature/nurture debate.

AO1 marks for description of

- Dweck’s ideas on fixed and growth mindsets, Dweck’s ideas on praise for effort,
- Willingham’s ideas on the myth of learning styles, and Willingham’s ideas on the importance of meaning for learning.
- **COMPARE TO: Social Learning Theory for Criminal Psychology – Role models; observation; imitation; vicarious reinforcement; direct reinforcement.**
- How this links to internalisation & criminal behavior.

AO3 marks for valid critical evaluation points relating to the nature/nurture debate in relation to the learning theories of development and at least one other area.

For example learning theories support the nurture side of the debate (‘the kind of situation’) through reinforcement (praise) and punishment and growth mindsets and meaning for learning. Reference to Blackwell et al. (2007) can also be used as evidence to support the nurture debate.

Other areas (theories or studies) which are relevant to the nature/nurture debate should be credited.

Marker’s Comments – Question 1 (a)

AO1

Level 3 (5–6 marks):

There is a thorough description of the nature/nurture debate through at least two key theories/concepts. This is done with accuracy and clarity.

There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.

Level 2 (3-4 marks):

There is a good description of the nature/nurture debate through one or more key concepts/theories. This is done with accuracy. There is a line of reasoning presented with some structure. The information presented is in the most- part relevant and supported by some evidence.

Level 1 (1-2 marks):

There is a basic description of the nature/nurture debate through one or more theories/key concepts. This may include some inaccuracy.

The information has some relevance and is presented with limited structure. The information is supported by limited evidence.

0 marks: No credit worthy response.

AO3

Level 3 (5-7 marks):

There is a thorough evaluation which offers breadth and/or depth, providing a thorough discussion of the stated area and at least one other area of psychology. Points are coherent and relevant and the response is developed in order to reach a substantiated judgement in response to the question.

Level 2 (3-4 marks):

There is a good evaluation which offers breadth and/or depth providing a good discussion of the stated area and one other area of psychology. Points may be brief but should still be relevant and used to reach a supported judgement in response to the question. There may be some basic attempt at evaluation but it will be weak and consideration of other areas of psychology may be inaccurate. Judgements will be either unclear or absent.

Level 1 (1-2 marks):

There may be some basic attempt at evaluation but it will be weak and consideration of other areas of psychology may be inaccurate. Judgements will be either unclear or absent.

0 marks: No credit worthy response.

Sample answer

(i) Learning theories of development include Dweck and Willingham. Dweck said that we should help children to have a growth mindset which means they believe they can make change to their thinking. She said that praising for effort is important for growth mindsets. If this does not happen then children have a fixed mindset. Willingham also looked at thinking and says it develops better if children process information for meaning. What he did not agree with is different learning styles.

Marks awarded: 1

(ii) The nature/nurture debate has two sides – one side that is all about being born with something, the other side about it being taught to you. Dweck is on the nurture side because she believes that you can teach children to develop in their learning by encouraging a growth mindset in their minds. The opposite is a fixed mindset where children think that they have a certain ability or talent and can't do anything change it. This is a bit like Piaget's idea that cognitive development is linked into age. If you are at a certain age then that is how you think. This means that Piaget is more about the nature side because age is a natural thing that you cannot control. But if Dweck is right then you do have some control of how well you do at school. This is because there is an element of free will and so Dweck is ignoring determinism as well as nature. Dweck believes that teachers are important because they can praise children for effort and this has an effect on their development. But what if some children are just more talented than others because of something they have inherited. No amount of praise can change that.

Marks awarded: 6

(iii) The idea that the situation is more important than the individual ties in with the nature/nurture debate in this way: the situation is linked to nurture as it gives us our experiences and we learn from the situation we are in. Looking at the individual is more to do with looking at the personality there were born with and so this is more to do with nature.

Dweck's learning theory in development looks at situation and nurture and her theory says that children are brought up to have fixed mindset or a growth mindset. With a fixed mindset, children believe their intelligence is fixed and they can do nothing about it. With a growth mindset, they believe they can improve their intelligence. Dweck said parents and teachers play a big part in the growth mindset and should nurture it through praise. However, what if Dweck is wrong? Children might be right to assume intelligence is fixed as there are psychologists who argue that intelligence is innate. Dweck's ideas also mean that children, parents and teachers are blamed if intelligence does not develop but it may not be their fault. For example, if the child has a learning difficulty that it was born with.

The nature/nurture debate also comes up in criminal psychology. Like Dweck, some psychologists believe your situation makes you a criminal – for example, if you are from a poor background or if you have lots of role models who are criminals already. Dweck might even say that criminals have fixed mindsets because they believe they are destined to commit crimes and can't change it. However, perhaps they can't change. Eysenck's theory is that criminals have different biology and different personalities from non-criminals and that is why they turn to crime more than others.

In conclusion, criminals can change their ways after prison and rehabilitation and children can make progress at school, so I agree that the situation determines how you act more than anything else – nature over nurture.

Marks awarded: 11

Commentary on the answer

(i) Dweck and Willingham's theories are potentially relevant but are merely described without any reference to the question set. One AO1 mark awarded here. There is no reference to the nature/nurture debate as required in all bands. There is no attempt at analysis and evaluation so AO3 marks cannot be accessed. To improve the answer, the candidate needed to demonstrate both the skills being credited in this extended response.

(ii) There is a good enough description of the nature/nurture debate through two key theories, including Dweck. This is done with accuracy. There is a line of reasoning presented although the essay lacks structure in terms of paragraphing. The information presented is in the most-part relevant. There is some reasonable evaluation which offers breadth but not much depth. Points are brief but relevant. Three of each AO1 and AO3 marks are awarded. To improve the answer, the candidate needed to expand on points more and reach a conclusion.

(iii) There is a reasonably thorough description of the nature/nurture debate through a number key theories/concepts. This is done with accuracy and clarity. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant. Five AO1 marks awarded. There is a reasonably thorough evaluation which offers breadth and some depth, providing a discussion of the stated area and at least one other area of psychology (criminal psychology). Points are coherent enough and relevant and the response is developed in order to reach a judgement in response to the question. Six AO3 marks awarded. To improve this answer, parts of the essay need more substance through better explanation.