



ATAR course examination, 2022

Question/Answer booklet

PSYCHOLOGY

Place one of your candidate identification labels in this box.
Ensure the label is straight and within the lines of this box.

WA student number: In figures

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In words

Time allowed for this paper

Reading time before commencing work: ten minutes
Working time: three hours

Number of additional
answer booklets used
(if applicable):

Materials required/recommended for this paper

To be provided by the supervisor

This Question/Answer booklet

To be provided by the candidate

Standard items: pens (blue/black preferred), pencils (including coloured), sharpener, correction fluid/tape, eraser, ruler, highlighters

Special items: up to three calculators, which do not have the capacity to create or store programmes or text, are permitted in this ATAR course examination

Important note to candidates

No other items may be taken into the examination room. It is **your** responsibility to ensure that you do not have any unauthorised material. If you have any unauthorised material with you, hand it to the supervisor **before** reading any further.



Structure of this paper

Section	Number of questions available	Number of questions to be answered	Suggested working time (minutes)	Marks available	Percentage of examination
Section One Research methods	2	2	30	36	20
Section Two Short answer	8	8	90	103	55
Section Three Extended answer	2	2	60	52	25
Total					100

Instructions to candidates

1. The rules for the conduct of the Western Australian external examinations are detailed in the *Year 12 Information Handbook 2022: Part II Examinations*. Sitting this examination implies that you agree to abide by these rules.
2. Answer the questions according to the following instructions.

Sections One and Two: Write your answers in this Question/Answer booklet preferably using a blue/black pen. Do not use erasable or gel pens. Wherever possible, confine your answer to the line spaces provided.

Section Three: Consists of two questions. You must answer both questions. Write your answers in this Question/Answer booklet preferably using a blue/black pen. Do not use erasable or gel pens.
3. You must be careful to confine your answers to the specific questions asked and to follow any instructions that are specific to a particular question.
4. Supplementary pages for planning/continuing your answers to questions are provided at the end of this Question/Answer booklet. If you use these pages to continue an answer, indicate at the original answer where the answer is continued, i.e. give the page number.

See next page

Section One: Research methods

20% (36 Marks)

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

Supplementary pages for planning/continuing your answers to questions are provided at the end of this Question/Answer booklet. If you use these pages to continue an answer, indicate at the original answer where the answer is continued, i.e. give the page number.

Suggested working time: 30 minutes.

Question 1

(20 marks)

Angelique wanted to do a study looking at the impact of parents' singing on toddlers' aggression levels. She developed two methods by which she could gather data for the study.

In the first method, she had 100 parents tally the number of times they sang in front of their children over a week and rate their child's general aggression level for that week from 0–10.

In the second method, she had 100 families volunteer to take part. Fifty agreed not to sing in front of their children at all and rate their aggression levels. The other 50 families were asked to sing around their children fifteen times each day for a week and rate their aggression levels using a well-known aggression scale.

- (a) Identify which method is experimental and give **two** reasons for your answer. (3 marks)

Method: _____

One: _____

Two: _____

- (b) Explain what is meant by non-experimental research. (3 marks)

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Question 1 (continued)

- (c) List **three** characteristics of non-scientific research. (3 marks)

One: _____

Two: _____

Three: _____

- (d) Design an operational hypothesis for one of her studies. (5 marks)

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While Angelique came up with these two methods for collecting data, she also considered a third. Parents were able to send children to a residential insect-hunting camp. She asked the toddlers if she could do a study on them and they said 'yes'. Of the toddlers that attended, she sang to half of the group and did not sing around the second half. She would personally rate their aggression levels over a week and then plot the data. Aside from the logistics, this raised two big ethical issues for Angelique and she decided not to pursue this study design.

- (e) Identify and explain the **two** main ethical issues, aside from deception, in the study above. (6 marks)

One: _____

Explanation: _____

Two: _____

Explanation: _____

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Question 2

(16 marks)

In the ‘Growing up in Australia’ study (Yu & Baxter, 2016), screen use in young people was investigated. The following data was collected using a longitudinal design.

Weekday television viewing time for ages 4 to 12 years

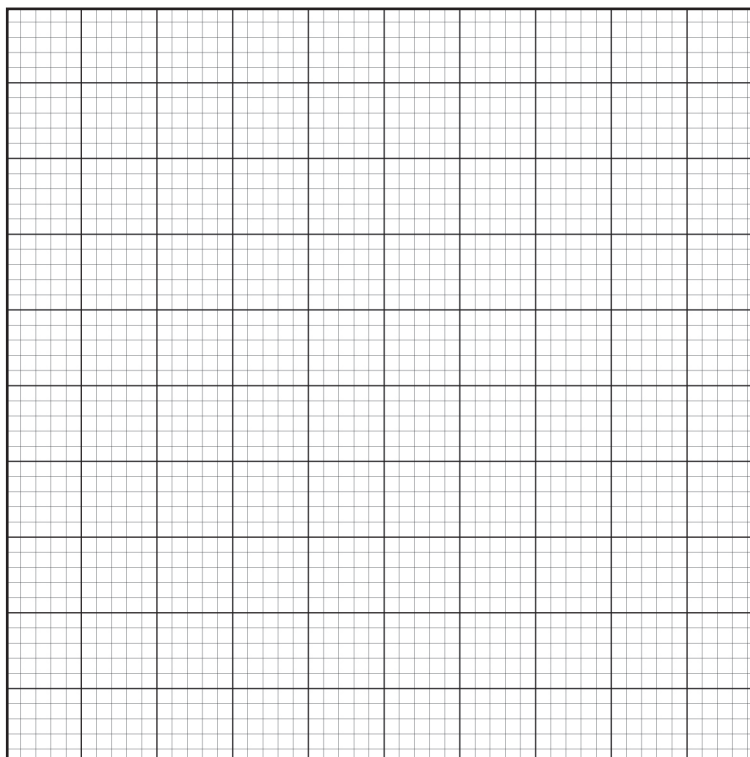
	Age (years)				
	4	6	8	10	12
Amount of television watched (minutes)	119	80	92	114	116

- (a) Identify the **two** behavioural variables for this data. (2 marks)

One: _____

Two: _____

- (b) Construct a scatterplot using the data in the table above. (5 marks)



A spare grid is provided at the end of this Question/Answer booklet. If you need to use it, cross out this attempt and indicate that you have redrawn it on the spare page.

See next page

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On the basis of the data provided, a correlation coefficient of 0.89 was calculated.

- (c) Identify the strength and direction of the relationship. (2 marks)

A team of lifespan psychologists wanted to use this data to make recommendations to the Australian Government.

- (d) Deduce a conclusion that could be drawn from this data. (1 mark)

When the psychologists presented the data and conclusion, they were criticised as the data had been collected in a non-experimental manner.

- (e) Explain **one** limitation for the conclusion you generated for part (d). (3 marks)

To increase the richness of the data, the psychologists recommended using interviews to collect qualitative data.

- (f) Identify **one** source of error that could occur when collecting data using this new method. (1 mark)

A government representative requested that the psychologists collect data using physiological measures.

- (g) Outline **two** advantages of using a physiological measure over an interview. (2 marks)

One: _____

Two: _____

End of Section One

See next page

Section Two: Short answer

55% (103 Marks)

This section has **eight** questions. Answer **all** questions. Write your answers in the spaces provided.

Supplementary pages for planning/continuing your answers to questions are provided at the end of this Question/Answer booklet. If you use these pages to continue an answer, indicate at the original answer where the answer is continued, i.e. give the page number.

Suggested working time: 90 minutes.

Question 3

(13 marks)

Neural transmission is the process by which neurons communicate with each other.

- (a) State the **three** main steps in the process of neural transmission between two cells. (3 marks)

One: _____

Two: _____

Three: _____

Nerim has been told she has a serotonin deficit.

- (b) Identify **three** issues that Nerim might notice or experience due to her deficit. (3 marks)

One: _____

Two: _____

Three: _____

- (c) State **one** problem that Nerim might face if her dopamine levels were to drop. (1 mark)

Nerim's father also has a serotonin deficit.

- (d) Name the term given to a generational passing of traits. (1 mark)

See next page

- (e) (i) Explain the role of genetics in determining our thoughts, behaviours and emotions. (3 marks)

- (ii) State **one** impact of genetics on both thought and behaviour. (2 marks)

Factor	Impact
Thought	
Behaviour	

Question 4

(13 marks)

- (a) Define the psychological term 'learning'. (1 mark)

Two-year-old Marq's parents recently had a baby that cries a lot, resulting in the parents comforting the baby. As Marq watches his new sibling and parents interact, his parents have noticed that he is complaining and crying much more often than he used to.

- (b) Complete the table below to outline the process of observational learning as it relates to Marq's new behaviour. (4 marks)

Stage of process	Example from scenario
Attention	
	Marq is able to remember this behaviour
	Marq is able to demand attention from his parents
Motivation	

Marq's grandfather, Jay, visits Marq's family on most days and notices that Marq is loud and throws his toys around until Jay pays him undivided attention.

Eventually, Jay ensures that he greets Marq first when arriving at the house to stop him from being loud and naughty.

- (c) (i) Identify the process of learning experienced by grandfather Jay. (1 mark)

- (ii) Explain the process of learning identified in part (c)(i) as it relates to grandfather Jay's new behaviour. (3 marks)

The speed at which learning and extinction of a behaviour occurs can be influenced by schedules of reinforcement, which are the rules that determine how often a reward is given following a target behaviour.

- (d) Define the psychological term 'extinction' as it relates to learning. (1 mark)

Buzz was training his pet rat to jump through a hoop and wanted the rat to jump through the hoop without needing to reward it with a food pellet every time.

- (e) Explain how a variable ratio schedule of reinforcement can be used to reduce the speed of extinction. (3 marks)

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Question 5

(11 marks)

Priya is building a house and has found the experience stressful after having to navigate perceived and real conflict. She faced delays due to worker shortages and potentially losing her current home before the new house was complete.

When planning what her new house would look like and how much it would cost, Priya had meetings with her builder where they both made proposals and counterproposals. They reached an agreement on the terms of the building contract that met the needs of both parties, and they were both happy.

- (a) Identify the conflict resolution technique used by Priya and her builder. (1 mark)

- (b) Classify the type of solution reached by Priya and her builder. (1 mark)

Priya's new neighbours did not like the design of Priya's new driveway and claimed it affected the value of their home. The neighbours exchanged increasingly angry emails about the problem until Priya eventually hired a lawyer to facilitate meetings and encourage the neighbours to come to an agreed solution.

- (c) Identify **one** similarity and **one** difference between counselling and mediation. (2 marks)

Similarity: _____

Difference: _____

When Priya and her daughter, Mina, moved into their new home, Mina also moved to a new local school. Although the distance to the new school is slightly further than before, Priya told Mina that she will now need to find her own way to school each day, saying 'it's about time you were a little more independent'. When Mina was upset by this, Priya sat with her and they looked up the transport options together.

- (d) State the **two** dimensions of parenting styles. (2 marks)

One: _____

Two: _____

- (e) (i) Identify the parenting style Priya is using with Mina. (1 mark)

- (ii) Justify your answer to part (e)(i), using examples from the scenario. (4 marks)

Question 6

(11 marks)

One aspect of communication is style.

- (a) Explain what is meant by 'communication style'. (3 marks)

William Labov's published works regarding Black English Vernacular (BEV)/ African-American English Vernacular (AAEV) highlights his major contribution to an understanding of communication.

- (b) Explain the key findings of Labov's work. (3 marks)

Labov claimed that many European languages used double negatives similarly to AAEV.

- (c) Present **one** example of a double negative that may be used in AAEV. (1 mark)

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The work of the UK sociolinguist Basil Bernstein predated that of Labov. His 1971 published works, *Class, codes and control: Theoretical studies towards a sociology of language*, outlined two contrasting language code systems.

There are positive and negative aspects to both the language codes proposed by Bernstein.

- (d) Name both codes and propose **one** example for each language code where it would be better to use that code. (4 marks)

Code	Example

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Question 7

(13 marks)

(a) Number the following in order of development.

(4 marks)

Developmental order (1st, 2nd, 3rd, 4th)	Milestone
	Symbolic thinking
	Object permanence
	Abstract thinking
	Conservation of mass

Michael, an 18 month-old child, loves dogs. He is quite good at pointing at dogs and barking at them. One day, he went to his aunt's farm, and saw a sheep and he started barking at it. He had never seen a sheep before. His dad tried to correct him and said that they were not dogs but sheep and made a 'baa' sound. Michael was confused and would pause for a bit after seeing a sheep, but kept barking.

According to Piagetian theory, Michael was trying to fit the sheep into his existing schema of dogs.

(b) State the name of this process.

(1 mark)

After Michael had seen more sheep, he started to say 'baa' to the sheep but kept barking at dogs. He started to adapt his schema, and he never barked at a sheep again.

(c) Referring to the scenario above, explain the process that resulted in this adaptation.

(4 marks)

- (d) Argue why Piaget's theory is both innate and learned. (4 marks)

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See next page

Question 8

(11 marks)

Mischel proposed a model of personality that emphasises thinking and responding to the situation and can be said to have a social-cognitive perspective on personality.

- (a) Name **two** other perspectives of contemporary personality theory. (2 marks)

One: _____

Two: _____

- (b) Outline **one** limitation of social-cognitive theory of personality. (2 marks)

Soo is an excellent football player and has won her club’s best player award for three years in a row. Soo’s school friends do not enjoy football as much but are happy to play with Soo because she is good at including them in the play, even when they are not very skilled. It has come to be expected by the group that when there is free time during school, Soo will organise a game of football.

According to Mischel, there are five person variables that may be used to predict how a person will behave.

- (c) Complete the table below to explain why Soo will attempt to organise a game of football with her friends in their free time during school. (5 marks)

Person variable	Example
Competencies	
	Soo expects that if she organises a game, then her friends will play
Cognitive strategies	
	Soo restrains herself during play to ensure her friends have an opportunity with the ball
Subjective values	

See next page

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- (d) Deduce a personality signature that describes Soo's behaviour in the situation on page 18. (2 marks)

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See next page

Question 9

(17 marks)

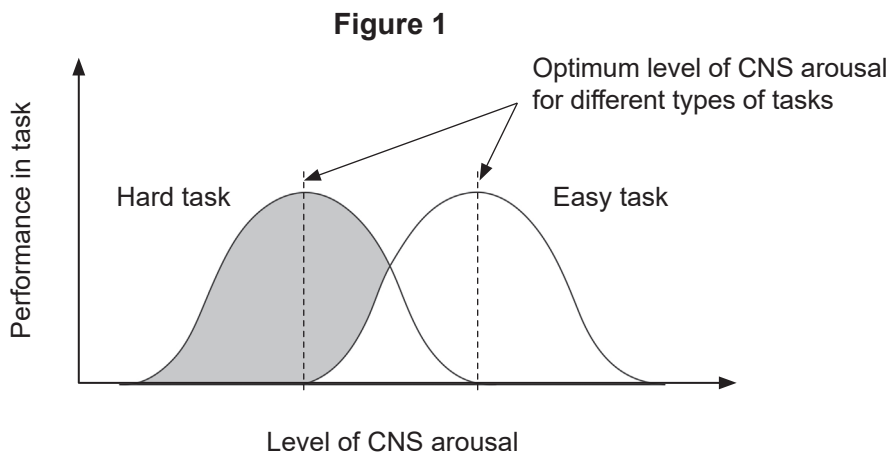
Groups are a very important aspect of human interaction. They can have both positive and negative influences on an individual.

- (a) State the psychological definition of the term 'group'. (2 marks)

Hanya is an Olympic cyclist. She is regularly time tested and, in training, has a personal best time of 5.23 minutes. On the day of her Olympic event, Hanya won her race with a time of 5.12 minutes.

- (b) Explain why Hanya performed better at the Olympics with spectators, compared to when she was training by herself, by referring to the impact of others on an individual's behaviour. (3 marks)

Hayna was not always an excellent cyclist. When Hanya was learning to ride a bike, she found the task quite difficult, and that when people were around she struggled to ride. When people were around her, Hanya had a high level of central nervous system (CNS) arousal.



See next page

Question 10

(14 marks)

Ghandi was 23-years-old when he experienced quite a significant negative event. He used to be very carefree and attended many parties, but Ghandi now avoids parties and instead spends more time in activities, looking for new possibilities and focusing on those around him who are most important.

- (a) Name and explain the response that Ghandi has had to the significant event. (4 marks)

Name: _____

Explanation: _____

Hermione experienced the same event, but she was only five-years-old. She had a strong ongoing negative response to the event and received a diagnosis.

- (b) Name the response experienced by Hermione. (1 mark)

- (c) Give **one** example for each of the three categories of symptoms Hermione may have exhibited or expressed based on her negative response to the event. (3 marks)

Category	Example
Physical	
Cognitive	
Emotional	

- (d) List **three** symptoms that Hermione would have to display in order to receive a diagnosis for her strong, ongoing negative response to the event. (3 marks)

One: _____

Two: _____

Three: _____

Hermione's mother looked into ways to help build hardiness or resilience in her daughter.

- (e) Identify **three** characteristics that she should look for in a program to build resilience. (3 marks)

One: _____

Two: _____

Three: _____

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End of Section Two

See next page

Section Three: Extended answer**25% (52 Marks)**

Section Three consists of **two** questions. You must answer **both** questions.

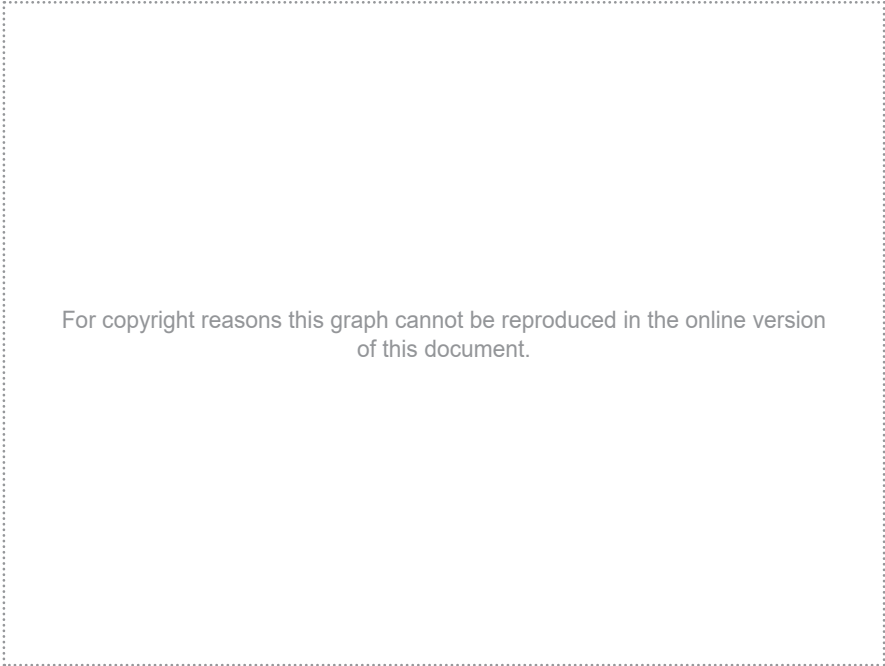
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Suggested working time: 60 minutes.

Write your answer to Question 11 on pages 25–29. When you have answered this question, turn to page 30 for Question 12 and write your answer on pages 31–35.

Question 11**(27 marks)**

Little et al. (2011) conducted a study to examine memory in students who are preparing for tests. Students read a story and were then asked questions about it. The participants in the Practise Group (Rp) were able to practise after the first test, whereas the Non-practise Group (Nrp) did not practise. They were then asked the same questions in the second test. The number of correct responses was recorded in the graph below.



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Write an extended answer with reference to the scenario by explaining the relevant psychological concepts.

In your answer you must:

- define the term 'long-term memory' (1 mark)
- state the duration and capacity of long-term memory (2 marks)
- describe the different types of long-term memory (10 marks)
- outline why participants in the Practise Group (Rp) showed a greater level of improvement by referring to the process of relearning (5 marks)
- explain why both groups were able to recall more correct answers in the second test (5 marks)
- communicate psychological understandings clearly with correct use of psychological language. (4 marks)

See next page

Question 12

(25 marks)

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Researchers were interested in exploring a proposed relationship between cognitive dissonance and the personality trait of conscientiousness in purchasing habits as illustrated in the proposed model below.

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To investigate this relationship, the researchers hypothesised that individuals would experience greater cognitive dissonance after impulse buying than after making a planned purchase.

The results from the researchers' survey on a 5-point Likert scale of shoppers after making purchases, are displayed in the table below. The higher the score, the higher the level of dissonance.

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The researchers also investigated whether conscientiousness influenced the cognitive dissonance experienced by shoppers and used a Likert scale to measure conscientiousness in shopping habits.

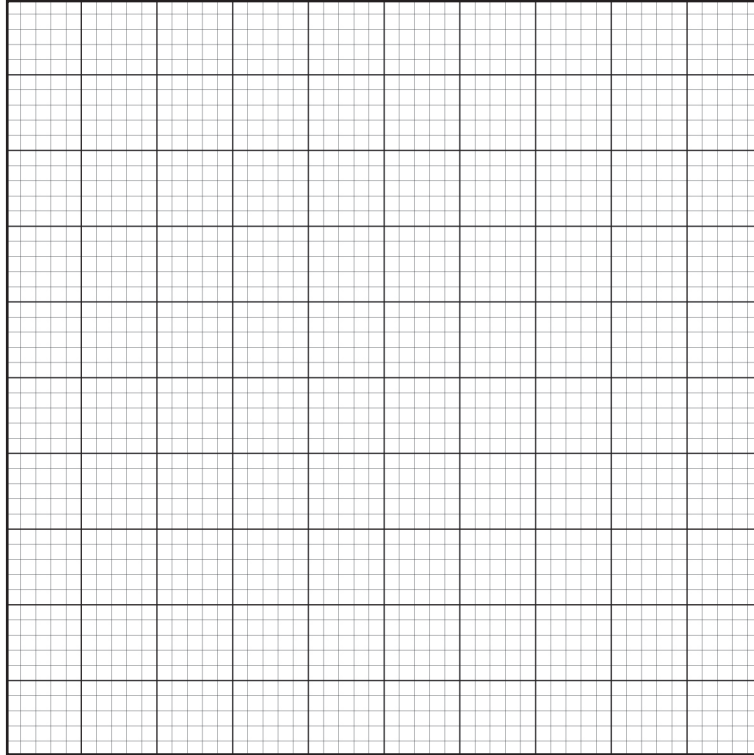
Write an extended answer with reference to the scenario by explaining the relevant psychological concepts.

In your answer you must:

- define the concept 'cognitive dissonance' and name a key theorist (3 marks)
- outline the process of cognitive dissonance and how an individual might respond to reduce the dissonance (5 marks)
- state and justify whether the researchers' hypothesis is supported or rejected and apply your understanding of cognitive dissonance to explain this finding (5 marks)
- predict how an individual's level of conscientiousness might affect their shopping habits (4 marks)
- describe **two** ways in which the researchers could ensure the reliability of their Likert scale (4 marks)
- communicate psychological understandings clearly with correct use of psychological language. (4 marks)

End of questions

Spare grid for Question 2(b)



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ACKNOWLEDGEMENTS

- Question 2** Table 1 adapted from: Yu, M. & Baxter, J. (2016, September). Weekday television viewing, 4-5 to 12-13 years (Table 5.1). *LSAC annual statistical report 2015* (p. 106). Retrieved May, 2022, from <https://growingupinaustralia.gov.au/research-findings/annual-statistical-report-2015/australian-childrens-screen-time-and-participation-extracurricular>
Used under Creative Commons Attribution 4.0 International licence.
- Question 9(c)** Adapted from: Thompson, M. & Falco, J. (2020, February 12). Leveraging technology to minimize operational error and hazards – rise of the operator 2.0 (Fig. 3) [Diagram]. *Process Safety Progress*, 39(1). Retrieved May, 2022, from <https://aiche.onlinelibrary.wiley.com/doi/10.1002/prs.12078>
- Question 11** Paragraph 1 information from: Little, J. L., Storm, B. C., & Ligon Bjork, E. (2011, June 15). The costs and benefits of testing text materials. *Memory*, 19(4), pp. 346–359. Retrieved May, 2022, <https://www.tandfonline.com/doi/full/10.1080/09658211.2011.569725>
Graph adapted from: Little, J. L., Storm, B. C., & Ligon Bjork, E. (2011, June 15). The costs and benefits of testing text materials (Fig. 1) [Graph]. *Memory*, 19(4). Retrieved May, 2022, <https://www.tandfonline.com/doi/full/10.1080/09658211.2011.569725>
- Question 12** Paragraph 1 adapted from: George, B. P. & Yaoyuneyong, G. (2010, November 23). Impulse buying and cognitive dissonance: A study conducted among spring break student shoppers. *Young Consumers*, 11(4), pp. 291–306. Retrieved May, 2022, from <https://www.emerald.com/insight/content/doi/10.1108/17473611011093925/full/html>
Paragraphs 2–5 information from: George, B. P. & Yaoyuneyong, G. (2010, November 23). Impulse buying and cognitive dissonance: A study conducted among spring break student shoppers. *Young Consumers*, 11(4), pp. 291–306. Retrieved May, 2022, from <https://www.emerald.com/insight/content/doi/10.1108/17473611011093925/full/html>
Figure 1 adapted from: George, B. P. & Yaoyuneyong, G. (2010, November 23). Impulse buying and cognitive dissonance: A study conducted among spring break student shoppers (Fig. 1) [Diagram]. *Young Consumers*, 11(4). Retrieved May, 2022, from <https://www.emerald.com/insight/content/doi/10.1108/17473611011093925/full/html>
Table 1 adapted from: George, B. P. & Yaoyuneyong, G. (2010, November 23). Impulse buying and cognitive dissonance: A study conducted among spring break student shoppers (Table 1). *Young Consumers*, 11(4). Retrieved May, 2022, from <https://www.emerald.com/insight/content/doi/10.1108/17473611011093925/full/html>

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