



Motivation: Learning & Cognition

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Motivation & learning



Worked Example

Here is an example of a **Paper 3 source** and a **6-mark SAQ** using **motivation** (HL extension) in the **Learning & Cognition** context:

Source 3

Lepper (1973) investigated the impact of intrinsic and extrinsic learning with a group of nursery-age children from Stanford University nursery (an elite institution). Intrinsic motivation is that which spurs people on to engage in behaviours simply for the pleasure of the behaviour itself (i.e., the reward is built into the activity). Extrinsic motivation is that which offers some sort of material/tangible reward for engaging in the activity. The researchers selected a sample of children who enjoyed drawing. Over a period of three weeks the children were exposed to one of three conditions:

- Extrinsic reward: The child was offered a 'good player' certificate if they continued to keep drawing
- Unexpected reward: The child was unexpectedly offered a 'good player' certificate as a reward for drawing
- No reward: The children received no certificate or reward for drawing, nor did they expect any

The researchers returned after a two-week break and observed that the extrinsically motivated children spent less time drawing than children from the other two groups.

Q3: To what extent are the findings in **source 3** transferable to other populations or contexts?

[6 marks]

Worked example:

The transferability of the findings is limited to some extent, as the sample was taken from Stanford University nursery, an elite college with a worldwide reputation. Children attending this nursery are likely to come from highly academic, privileged families who may not value extrinsic motivation as a tool for learning. The sample is not representative of the wider USA or families of different socio-economic and educational demographics.

An external reward imposes parameters on what should be a naturally reward-giving activity, i.e., it 'monetises' it to the extent that the enjoyment is taken away from it, reducing the desire to repeat the experience if 'nothing' is to be gained from doing so. This idea is transferable to a range of contexts, e.g., education, sport, and creative arts: extrinsic rewards may, in fact, reduce genuine enjoyment of the activity so that what was once a passion becomes simply a way of making money (e.g., the Youtuber

Alisha Marie disowned her creative work after saying that she felt compromised and burnt out by the demands made on her).

Guidance

- The command term "To what extent" requires you to express a view/judgement on the merit, validity, or success of an argument or concept, supported by relevant evidence
- Points made about transferability could include:
 - How easily the findings can be transferred/generalised to other populations or situations/contexts
 - How easily understood or relatable the concepts, ideas and experiences covered in the data are to most people
 - How relevant the research appears to a modern audience/population
 - How well the researcher has explained their use of materials, procedure, method, data analysis, etc.



Your notes



Independent learning strategies

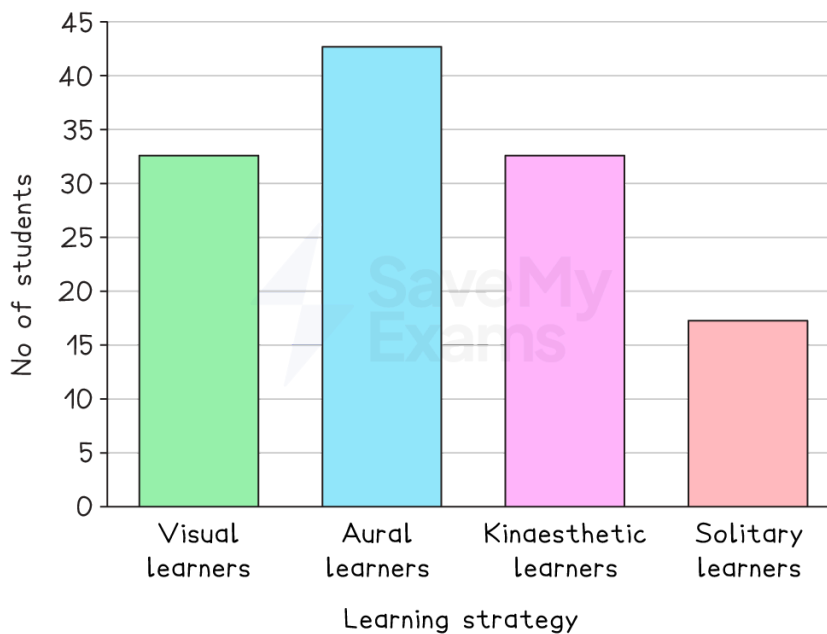


Worked Example

Here is an example of a **Paper 3 source** and a **3-mark SAQ** using **motivation** (HL extension) in the **Learning & Cognition** context:

Source 1

A graph to show the popularity of independent learning strategies in one school year group



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Q3: Explain **one** issue that limits the interpretation of the data in this source.

[3 marks]

Model answer:

A bar graph can only show scores per category (or mean score per condition), which means that there is no accounting for the complexity of the data, i.e., the extent to which each student prefers one particular learning strategy (e.g., some students may use more than one style frequently).

or

A bar graph such as this one in the source can show trends in data but not the underlying causes or reasons for these trends. For example, there is no explanation as to why the visual style of learning is the preferred strategy within this school year group.

Guidance

- Use only the information provided by the graph/chart: do not 'invent' data or make assumptions as to what may be behind the data, e.g., why visual learning is the most popular style
- Do not write too much – there are only 3 marks available for this question and you need time to complete the higher-value questions on this paper
- The question is asking for one limitation so don't provide two or more, as you will not be rewarded for this
- The question is asking for what limits interpretation of the data so don't waste time/marks by stating any advantages/strengths



Your notes



Assessing motivation



Worked Example

Here is an example of a **Paper 3 source** and a **6-mark SAQ** using **motivation** (HL extension) in the **Learning & Cognition** context:

Source 3

Lepper (1973) investigated the impact of intrinsic and extrinsic learning with a group of nursery-age children from Stanford university nursery (an elite institution). Intrinsic motivation is that which spurs people on to engage in behaviours simply for the pleasure of the behaviour itself (i.e., the reward is built into the activity). Extrinsic motivation is that which offers some sort of material/tangible reward for engaging in the activity. The researchers selected a sample of children who enjoyed drawing. Over a period of three weeks the children were exposed to one of three conditions:

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The researchers returned after a two-week break and observed that the extrinsically motivated children spent less time drawing than children from the other two groups.

Q3: Discuss how the researcher could avoid bias in this source.

[6 marks]

Model answer:

The researchers could avoid culture and affluence bias in this study by ensuring that the sample is both ethnically and socioeconomically diverse. The sample could be broadened to include children from states and regions outside of Stanford university and/or those from a diverse range of socioeconomic backgrounds within the USA. The researchers could avoid participant bias by not indicating to the children how they are expected to behave within the research process.

The researchers could avoid confirmation bias by practicing reflexivity i.e., they should make sure that they are aware of any preconceived ideas they may hold about the children being studied and what they expect to find. Confirmation bias could manifest as the researchers overlooking what does not fit their expectations (i.e., the extrinsically rewarded children not drawing) and only focusing on behaviours which align with their preconceived ideas.

Guidance

- The command term “Discuss” requires you to offer a considered review, acknowledging limitations as well as strengths, offering suggestions for improvement, demonstrating insight of the topic
- A discussion of how to avoid bias could include:
 - Using reflexivity to be alert to confirmation bias and researcher bias
 - Checking the procedure/questions to avoid social desirability bias and acquiescence bias
 - Aiming to find a sample that is as unbiased and representative as possible
 - Being sensitive to issues such as culture bias and gender bias



Your notes