

Psychology
Higher level Paper
3

TR paper

1 hour 45 minutes

Instructions to candidates

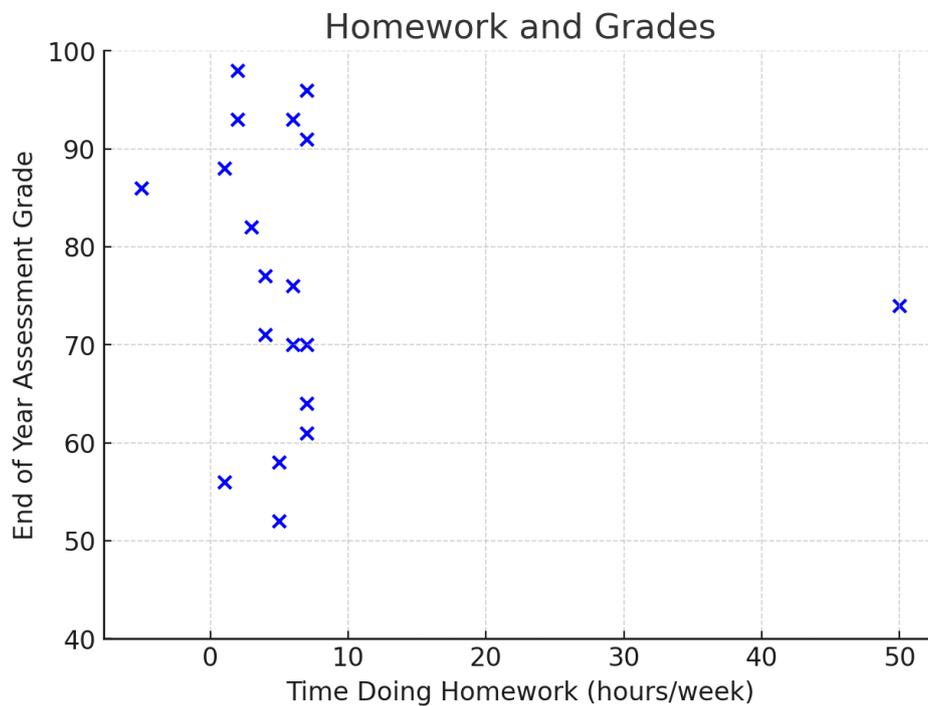
- Do not turn over this examination paper until instructed to do so.
- Answer all the questions.
- The accompanying **psychology resource booklet** is required for this examination paper.
- The maximum mark for this examination paper is:
- **[30 marks]**.

Answer **all** questions. Refer to source 1 below to answer question 1 and the sources in the accompanying resource booklet to answer questions 2–4.

The sources in this examination have been collated to assess the claim that motivation plays a role in the development of children.

Source 1

Figure 1 shows the relationship between homework and attainment.



1. Explain **one** issue that limits the interpretation of the data in **source 1**. [3]

2. Analyse the findings from **source 2** and state a conclusion linked to the claim that motivation plays a role in the development of children. [6]

3. To what extent are the findings from **source 3** transferable to other populations or contexts? [6]

4. To what extent can we conclude that motivation plays a role in the development of children? In your answer, use your own knowledge and **at least three** of **sources 2–5**. [15]

Psychology
Higher level
Paper 3 – resource booklet

TR paper

Instructions to candidates

- Do not open this booklet until instructed to do so.
- This booklet accompanies paper 3.

4 pages

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The sources in this examination have been collated to assess the claim that culture plays a role in the satisfaction of people in long-term intimate relationships.

Source 2

Researchers investigated whether motivation to gain peer approval influences children’s willingness to follow classroom moral rules.

Participants were 240 children (ages 9–11) from two elementary schools. Motivation for peer approval was measured using a brief scale completed by the children’s teachers; students in the top third were classified High peer-approval motivation, and those in the bottom third Low peer-approval motivation.

During a rule-following game (10 scenarios such as waiting one’s turn, sharing materials, and telling the truth), observers recorded whether each child followed the rule (yes/no). The table shows the frequency of rule-following.

Table 1. Frequency of rule-following by motivation group

Motivation group	Followed rule (Yes)	Did not follow (No)	Total
High peer-approval motivation	92	28	120
Low peer-approval motivation	74	46	120
Total	166	74	240

Analysis: A two-proportion z-test compared the proportion who followed rules in the two groups.

Calculated $z = 2.52$

Critical z (two-tailed, $p = 0.05$) = ± 1.96

Conclusion: Because the calculated value exceeds the critical value, the null hypothesis was rejected.

Source 3

Researchers wanted to explore how children’s motivation to communicate with caregivers influences their early language development. Semi-structured interviews were conducted with six mothers of toddlers aged 18–24 months from the same local daycare centre.

Mothers were asked to describe situations where their child actively tried to communicate, and how they responded. The interviews were audio-recorded and analysed using thematic analysis. The following themes emerged from the interviews:

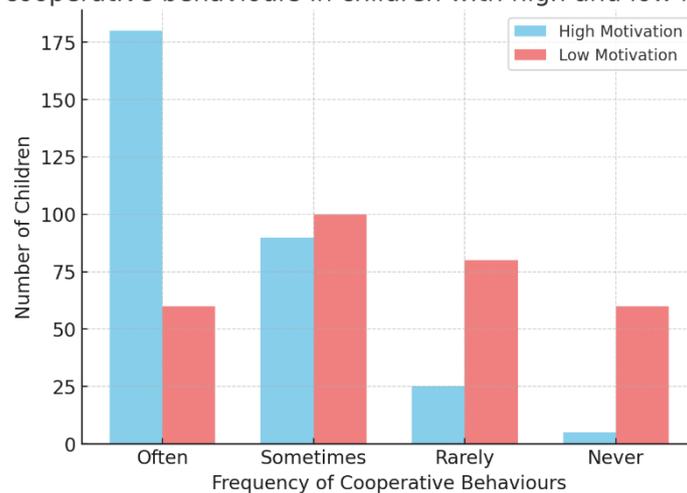
- Mother A: “My child points at objects and keeps repeating sounds until I respond with the word.”
- Mother B: “She brings me books and tries to name the pictures, showing excitement when I praise her attempts.”
- Mother C: “He imitates words from songs and wants me to repeat them with him until he gets it right.”
- Mother D: “She uses gestures like waving or clapping to get my attention, and I respond with the words that match.”
- Mother E: “He creates his own little words for objects and expects me to understand and repeat them back.”

Source 4

Researchers conducted a large-scale online survey to examine whether children’s motivation to participate in group activities is related to their development of cooperative behaviours. The survey was distributed to parents worldwide through an online platform and attracted a large and diverse sample.

Parents were asked how often their child engaged in cooperative activities with peers, such as sharing, helping, or working on tasks together. Responses were coded into four categories: often, sometimes, rarely, or never. The results were grouped according to whether parents rated their child as having high motivation or low motivation to take part in group activities.

Figure 2. Frequency of cooperative behaviours in children with high and low motivation for group activities



Source 5

Researchers examined whether there is a relationship between children’s intrinsic motivation to read and their cognitive development in vocabulary acquisition. Data were collected from children aged 8–12 in 20 different schools.

- Intrinsic motivation to read was measured using a standardised questionnaire, where higher scores indicated stronger enjoyment and interest in reading for its own sake.
- Vocabulary development was measured using a standardised test of word knowledge, where higher scores indicated larger vocabularies.

The analysis found a positive correlation between intrinsic motivation to read and vocabulary development:

- Correlation coefficient (r) = 0.58
- $p < 0.05$

IB Psychology - New Syllabus (First Assessment 2027)

Paper 3 Model Answers

1. Explain one issue that limits the interpretation of the data in **source 1**. [3]

One issue that limits the interpretation of the data in Source 1 is the presence of impossible values, such as negative hours of homework and negative end-of-year grades. These values cannot exist in reality, so their inclusion suggests errors in data collection or recording. This reduces confidence in the accuracy of the dataset as a whole.

Because of these errors, it becomes difficult to judge whether the overall relationship between homework time and grades is genuine or distorted. For example, the negative values might pull the pattern in an artificial direction, creating misleading conclusions about motivation and achievement. If researchers want to use this data to argue that time spent on homework supports higher academic performance, the presence of these flawed data points weakens the validity of that claim.

This issue limits how useful the data is for making conclusions about children's development and the role of motivation, as we cannot be sure the trend reflects real-world patterns rather than simple mistakes.

2. Analyse the findings from **source 2** and state a conclusion linked to the claim that motivation plays a role in the development of children. [6]

The findings from Source 2 suggest that children with high motivation to gain peer approval are more likely to follow classroom moral rules than those with low motivation. Out of 120 children in the high-motivation group, 92 followed the rules, compared with only 74 in the low-motivation group. This shows a clear difference in behaviour between the two groups and suggests that peer-approval motivation may encourage rule-following.

The statistical analysis strengthens this interpretation. The calculated z-value of 2.52 is greater than the critical value of 1.96, which indicates the difference is statistically significant. In other words, the probability that this result occurred by chance is less than 5% ($p < 0.05$). This means we can be reasonably confident that peer motivation had a real effect on children's behaviour in the observed situations.

Overall, the findings support the claim that motivation plays a role in children's development. Specifically, they suggest that social motivation, in the form of seeking peer approval, can shape moral behaviour by increasing children's likelihood of following rules in classroom contexts. However, the study does not explain why this occurs — it could be because children want to avoid social rejection, or because peer approval strengthens the value they place on moral norms.

3. To what extent are the finding from **source 3** transferable to other populations or contexts? [6]

One limitation of transferability is the small sample size. Only six mothers were interviewed, which is too few to represent the diversity of parenting styles and experiences. Because of this, the findings may only reflect the communication patterns of these particular families rather than being generalisable to wider

populations. This means the results should be interpreted cautiously when applied to other groups of parents.

Another issue is that the participants were all mothers. Fathers, grandparents, or other caregivers might encourage or respond to children's communication attempts in different ways. Since these perspectives were excluded, the findings cannot be confidently transferred to families with different caregiving arrangements. This limits the broader applicability of the results.

A further limitation is that the children were all toddlers aged 18–24 months from the same daycare centre. Their shared context and narrow age range make it difficult to know if the findings would apply to older children, younger infants, or children in other environments. Therefore, the data may not be transferable to populations with different developmental stages or family settings.

However, the themes identified — such as pointing, repeating sounds, and using gestures — are common across many toddlers' language development. This suggests that some aspects of the findings may be transferable to other children of a similar age, even if the details of communication vary between families.

Overall, the findings from Source 3 are partly transferable. While the limited sample and narrow context restrict generalisation, the behaviours described are typical of toddlers, meaning the data may still apply in similar developmental contexts.

4. To what extent can we conclude that motivation plays a role in the development of children? In your answer, use your own knowledge and **at least three** of sources 2–5. [15]

The claim that motivation plays a role in the development of children is supported by research into moral, social, language, and cognitive growth. Sources 2–5 each provide evidence linking motivation to behaviour and learning, but the extent of this role depends on how valid and reliable the data are. Using the IB concepts of bias, causality, change, measurement, perspective, and responsibility, the evidence can be critically evaluated to determine how far the claim can be supported.

Source 2 shows that children with higher motivation for peer approval were more likely to follow classroom rules, and the difference was statistically significant ($z = 2.52, p < 0.05$). This suggests motivation shapes moral behaviour. However, the study raises issues of causality: the design does not establish whether motivation directly caused moral rule-following or whether another factor (e.g., teacher expectations) influenced both. There is also a measurement concern, since “peer approval motivation” was assessed using a teacher rating scale, which may reflect teacher bias rather than the child's true motivation. These issues limit the certainty with which we can conclude motivation is the cause of the observed behaviour.

Source 3 highlights toddlers' motivation to communicate through gestures, imitation, and persistence, supporting the idea that motivation drives early language development. However, transferability is limited by perspective, as the data were collected only from mothers. Fathers or other caregivers might view children's communication differently, leading to alternative interpretations. The study also reflects responsibility, as parental encouragement seems to shape how children's motivated attempts are

responded to. While the themes fit with Vygotsky's theory that social interaction drives change, the small sample size means the evidence is narrow, making it difficult to generalise.

Source 4 showed that children with high motivation to join group activities were more likely to "often" engage in cooperative behaviours, while low-motivation children were more likely to "rarely" or "never" cooperate. This supports the claim that motivation contributes to social development. However, the data relied on parent reports, which introduces potential bias: parents may overstate cooperative behaviours if they see them as socially desirable. There is also a measurement concern, as "cooperation" was coded in broad categories rather than observed directly. Nevertheless, the large and diverse sample strengthens the findings and suggests the results may reflect meaningful change in behaviour linked to motivation.

Source 5 reported a positive correlation ($r = 0.58$, $p < 0.05$) between intrinsic motivation to read and vocabulary size, indicating a link between motivation and cognitive development. Yet the use of correlation means causality cannot be established — it is possible that larger vocabularies increase enjoyment of reading, rather than motivation leading to vocabulary growth. The use of a standardised questionnaire and test strengthens measurement, as it increases the reliability of the data, but cultural and socioeconomic perspectives may influence both reading motivation and access to books, making the findings less universally applicable.

Psychological theory provides further support for the role of motivation. Self-determination theory argues that intrinsic motivation is key for cognitive and social growth, while Bandura's social learning theory shows that children are motivated to imitate behaviours when reinforced by approval. Research into mastery versus performance goals shows that motivation influences not just achievement but also long-term learning strategies, reflecting the concept of change over time. However, other perspectives emphasise biological maturation or environmental resources, showing that motivation is not the only factor.

Taken together, Sources 2–5 provide converging evidence that motivation plays a significant role in children's moral, language, social, and cognitive development. Each source, however, raises methodological concerns about bias, causality, and measurement, which limit how confidently the findings can be generalised. Still, the consistency across multiple domains and alignment with theory suggest motivation is an important influence. The most reasonable conclusion is that motivation does play a role, but it is one of several interacting factors, shaped by caregiver responsibility, cultural perspectives, and developmental changes. Therefore, we can conclude to a large extent that motivation contributes to child development, though not in isolation.

