

# Markscheme

November 2024

Psychology

Higher level

Paper 3

© International Baccalaureate Organization 2024

All rights reserved. No part of this product may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without the prior written permission from the IB. Additionally, the license tied with this product prohibits use of any selected files or extracts from this product. Use by third parties, including but not limited to publishers, private teachers, tutoring or study services, preparatory schools, vendors operating curriculum mapping services or teacher resource digital platforms and app developers, whether fee-covered or not, is prohibited and is a criminal offense.

More information on how to request written permission in the form of a license can be obtained from <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organisation du Baccalauréat International 2024

Tous droits réservés. Aucune partie de ce produit ne peut être reproduite sous quelque forme ni par quelque moyen que ce soit, électronique ou mécanique, y compris des systèmes de stockage et de récupération d'informations, sans l'autorisation écrite préalable de l'IB. De plus, la licence associée à ce produit interdit toute utilisation de tout fichier ou extrait sélectionné dans ce produit. L'utilisation par des tiers, y compris, sans toutefois s'y limiter, des éditeurs, des professeurs particuliers, des services de tutorat ou d'aide aux études, des établissements de préparation à l'enseignement supérieur, des fournisseurs de services de planification des programmes d'études, des gestionnaires de plateformes pédagogiques en ligne, et des développeurs d'applications, moyennant paiement ou non, est interdite et constitue une infraction pénale.

Pour plus d'informations sur la procédure à suivre pour obtenir une autorisation écrite sous la forme d'une licence, rendez-vous à l'adresse <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organización del Bachillerato Internacional, 2024

Todos los derechos reservados. No se podrá reproducir ninguna parte de este producto de ninguna forma ni por ningún medio electrónico o mecánico, incluidos los sistemas de almacenamiento y recuperación de información, sin la previa autorización por escrito del IB. Además, la licencia vinculada a este producto prohíbe el uso de todo archivo o fragmento seleccionado de este producto. El uso por parte de terceros —lo que incluye, a título enunciativo, editoriales, profesores particulares, servicios de apoyo académico o ayuda para el estudio, colegios preparatorios, desarrolladores de aplicaciones y entidades que presten servicios de planificación curricular u ofrezcan recursos para docentes mediante plataformas digitales—, ya sea incluido en tasas o no, está prohibido y constituye un delito.

En este enlace encontrará más información sobre cómo solicitar una autorización por escrito en forma de licencia: <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

**Paper 3 markbands**

<b>Marks</b>	<b>Level descriptor</b>
<b>0</b>	<ul style="list-style-type: none"> <li>• The answer does not reach a standard described by the descriptors below.</li> </ul>
<b>1–3</b>	<ul style="list-style-type: none"> <li>• The question is misunderstood and the central issue is not identified correctly, resulting in a mostly irrelevant argument.</li> <li>• The response contains mostly inaccurate references to the approaches to research or these are irrelevant to the question.</li> <li>• The reference to the stimulus material relies heavily on direct quotations from the text.</li> </ul>
<b>4–6</b>	<ul style="list-style-type: none"> <li>• The question is understood, but only partially answered resulting in an argument of limited scope.</li> <li>• The response contains mostly accurate references to approaches to research which are linked explicitly to the question.</li> <li>• The response makes appropriate but limited use of the stimulus material.</li> </ul>
<b>7–9</b>	<ul style="list-style-type: none"> <li>• The question is understood and answered in a focused and effective manner with an accurate argument that addresses the requirements of the question.</li> <li>• The response contains accurate references to approaches to research with regard to the question, describing their strengths and limitations.</li> <li>• The response makes effective use of the stimulus material.</li> </ul>

1. (a) Identify the research method used and outline **two** characteristics of the method. [3]

*Award [1] for identification of correct research method.*

Survey (also accept questionnaire)

*Answers related to an outline of characteristics of the method may include two of the following characteristics: [1] per relevant point. Maximum of [2].*

- Surveys are used by researchers to collect data from a large group of participants.
- They are a self-report technique where participants are given a number of pre-set questions to answer.
- The researcher does not need to be physically present while the participant completes the questions. This means that participants can remain anonymous.
- If a survey is not carried out in person, participants are able to take their time to answer the questions.
- When the researcher is not present, participants often choose not to return their answers, even if they have previously agreed to take part.
- A survey can be used to collect quantitative / numerical data by asking closed questions, multiple choice questions or using a rating scale. It can also be used to collect qualitative data by asking open questions.
- Surveys are less expensive and a quick and easy method for collecting a large amount of data.
- They can be carried out in a number of different ways – in person, by post, by telephone or online.

*Also accept characteristics of questionnaires.*

- (b) Describe the sampling method used in the study. [3]

*Award [1] for naming the correct sampling method.*

Convenience/opportunity sampling.

*Description of the sampling method may include two of the following characteristics: Award [1] per relevant point, up to a maximum of [2].*

*Award [0] for description of the sample rather than the sampling method.*

Descriptions of the sampling method used in the study could include but are not limited to:

- A convenience/opportunity sample is a non-probability sample, which means that participants are not chosen randomly from a target population.
- A convenience/opportunity sample is found by asking members of the population who meet certain practical conditions (such as availability / willingness to participate / geographical proximity / being known by the researcher).
- It is an easy and convenient way to collect a sample compared to other sampling methods.
- A convenience/opportunity sample is cost-effective and saves time, especially when gathering a large sample.
- A convenience/opportunity sample can result in a biased sample that is not representative of the target population. This means that the findings cannot easily be generalized – if at all.

- (c) Suggest **one** alternative **or one** additional research method that could be used to investigate the aim of the original study, giving **one** reason for your choice. **[3]**

*Award [1] for naming an alternative or additional research method and up to [2] for reason with rationale.*

*The candidate may choose to write about an alternative or additional method. Either approach to answering the question is acceptable. The rationale may differ depending on which is chosen.*

*If more than one method is suggested, only the first method can be considered for credit.*

Suitable alternative or additional research methods and reasons (with rationale) could be but are not limited to:

### **Focus group interviews**

- The facilitator could encourage the participants to share their views and experiences.
- The focus group as an additional research method would allow triangulation and could compensate for the limitations of the survey and vice versa.
- The focus-group approach could provide the researcher information they may not have thought of themselves when preparing the questions for the survey.
- The focus group provides a natural setting for interactions.
- This method gives a special dynamic to the interview because participants continue the conversation among themselves. This is likely to generate rich data, although there may be problems of conformity within a focus group.

### **Semi-structured interviews**

- The semi-structured interview is based on an interview guide with a list of potential questions and topics that need to be covered during the interview.
- The semi-structured interview is flexible. There are both closed and open-ended questions and the interviewer can ask respondents to elaborate on answers. The focus of this research was the psychological effects of colours in indoor spaces. This is quite a subjective effect and each person's way of describing it may be quite different.
- The ability to ask follow up questions in a semi-structured interview could potentially lead to a better understanding of each participants' subjective understanding of this topic.
- The semi-structured interview as an additional research method would allow triangulation and could compensate for the limitations of the survey and vice versa.

2. Describe the ethical considerations that were applied in the study and explain if further ethical considerations could be applied.

[6]

*Describe the ethical considerations that were applied in the study: Award [1] per relevant point made, up to a maximum of [3].*

*The command term “describe” requires candidates to give a detailed account.*

*If a candidate names relevant ethical considerations without also accurately describing them, a maximum of [1] should be awarded.*

- **Informed consent:** The cover page attached to the questions included a letter that informed people the questions were part of a study into the psychological effects of colours. The cover page also stated that by filling out and returning the questions, the participants were giving their consent.
- **Deception:** Participants were NOT deceived and there were no reasons to use deception. They were made aware that the study was about the psychological effects of colours.
- **Anonymity:** The stimulus material specifically mentions that people were not asked for their names. This would mean that participants could not be named in the research report and the answers could not be linked to an individual participant. However, other people sitting in the centre when the questions were given out may know who was asked to participate in the study.
- **Right to withdraw:** The researcher approached people to ask if they were available to take part. They were then given 48 hours to return their responses. Participants had the right to withdraw after taking a question sheet because they could simply choose not to return their answers.
- **Lack of coercion:** The participants were asked if they were available to take part and were not forced to / rewarded for returning their answers.
- **Protection from harm:** The topic of this study is not a sensitive one and asking questions on it is unlikely to cause psychological harm to most participants. Answering questions is not an activity that would cause physical harm. The researcher’s contact information was included on the cover page so that participants could contact the researcher if they have any questions/concerns.
- Other relevant considerations.

*Explain if further ethical considerations could be applied. Award [1] per relevant point made, up to a maximum of [3].*

*The command term “explain” requires candidates to give a detailed account including reasons or causes.*

*If a candidate names relevant ethical considerations without also accurately explaining them, a maximum of [1] should be awarded.*

- **Debriefing:** Although there was not any deception in this study, a debrief is still helpful as a way of providing closure for the participants. The cover sheet could be used to offer the participants the opportunity for a debrief after they have completed the study. They could choose to contact the researcher who would provide an explanation of the purpose of the study, what results they expected to find and how these would be used.
- **Right to withdraw:** Participation in research must be voluntary and so participants needed to be informed about their right to not complete the questions / withdraw their data. If the cover page had an identification number, answers could be withdrawn without names needing to be involved.
- **Confidentiality:** Although the participants are anonymous because the researcher does not know their identity, the researcher still needs to keep their answers confidential by preventing them from being accessed by, used or disclosed to anyone else. Therefore the researcher should make sure that the data is stored securely and destroyed once it is no longer needed.
- **Parental consent:** If participants are younger than 18, the researcher must also receive consent from a parent. Although the majority of university students are 18, it is a public building and there may be other people there – such as prospective students or students’ younger friends or siblings.
- Other relevant considerations.

3. Discuss how the researcher in the study could avoid bias.

[9]

*Refer to the paper 3 markbands when awarding marks.*

*Marks should be awarded according to the descriptors in the markbands. A best-fit approach is used to ascertain which particular mark to use from the possible range for each level descriptor.*

The command term “discuss” requires candidates to offer a considered and balanced review of how a researcher could avoid bias.

Biases in research may originate from the design, the researchers, as well as the participants.

Candidates may refer to measures that were taken in the study or suggest measures that could have been taken, or a combination of the two. Each of these approaches are equally acceptable.

Possible ways for the researcher to avoid bias in this study could include but are not limited to:

- Researchers could reduce bias by having a well-designed research protocol that explicitly outlines how data is collected and analysed in this study.
  - The researcher could conduct a pilot study in order to test things like the suitability of the questions and the clarity of the instructions/cover page. However, a pilot study may not be possible due to time restraints or lack of resources.
  - Sampling bias (selection bias) is a danger when participants in a sample are not selected randomly. However, a random sample may not be possible due to time restraints or lack of resources. The researcher did visit the centre at different times of the day and attempted to hand out a similar number of question sheets in each area. This may have helped to reduce sampling bias.
  - Nonresponse bias could occur if the people who did not want to take part in the study, or who took the questions but did not return them, were systematically different from those who did participate. Common causes of nonresponse, such as poor survey design, confusing/long questions or difficulties in returning question sheets, can be discovered by carrying out a pilot study. The researcher could also consider offering incentives for returning the question sheet - such as course credits - but this may also result in bias.
  - To prevent researcher bias, the researcher should be aware of personal biases when formulating the questions and analysing the answers and should use reflexivity / critical self-awareness with regard to areas such as personal interests.
  - The researcher could try to avoid confirmation bias during analysis of the answers by having other researchers participate in the collection, analysis, and interpretation of data (researcher triangulation). This is important with regard to the generalization of results.
  - Leading questions can introduce bias when participants answer in a certain way because the wording of the question encourages them to do so. The questions (and answers if there are closed questions) need to be phrased in a way that is specific and clear.
  - Question order and the tendency to give positive answers (acquiescence bias) can also occur. These types of issues can be discovered by carrying out a pilot study.
  - Investigator effects would be reduced if the researcher does not need to be present while the participant completes the questions. This could be achieved if the surveys are able to be returned by post or to a drop in point (such as a box in the library).
  - Social desirability is the participants’ tendency to respond in a way that they think will make them liked or accepted. This could be an issue if they are answering the questions with their friends around them. Ways to address this may be asking people to complete it on their own and return it later or providing a private space for completing the questions.
-