# AQA Psychology – Research Methods Practice Test (Sample)

## Study Guide


**Everything you need from our exam experts!**

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# Introduction

**Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.**

**This guide was designed to help you do exactly that.**

**Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.**

**The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:**

- **Practice answering questions under realistic conditions,**
- **Improve accuracy and speed,**
- **Review explanations to strengthen weak areas, and**
- **Approach the exam with greater confidence.**

**We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.**

**Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.**

**Let's begin.**

# How to Use This Guide

**This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here’s how to get the most out of your Examzify study guide:**

### 1. Start with a Diagnostic Review

**Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.**

### 2. Study in Short, Focused Sessions

**Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.**

### 3. Learn from the Explanations

**After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.**

### 4. Track Your Progress

**Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.**

### 5. Simulate the Real Exam

**Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.**

### 6. Repeat and Review

**Don’t just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.**

**There’s no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!**

# Questions

**1. Scattergrams show:**

**A. They show differences between groups**

**B. They cannot place either variable on X or Y axis**

**C. They require categorical data**

**D. They show associations between co-variables**

**2. What type of correlation occurs when one variable increases as the other decreases?**

**A. Positive Correlation**

**B. Zero Correlation**

**C. Negative Correlation**

**D. Co-Variables**

**3. What does the range measure?**

**A. The sum of scores**

**B. The variance around the mean**

**C. The dispersion by subtracting min from max and adding one**

**D. The standard deviation**

**4. Which design reduces the impact of individual differences by pairing participants with similar characteristics and assigning them to different conditions?**

**A. Independent Groups Design**

**B. Repeated Measures Design**

**C. Single-subject Design**

**D. Matched Pairs Design**

**5. Which statement accurately describes a normal distribution?**

**A. The tails touch the horizontal axis.**

**B. The distribution is skewed to one side.**

**C. The mean, median and mode are not related.**

**D. The mean, median and mode are all in the centre.**

**6. What is the critical value?**

A. The calculated value is the boundary used to decide significance.

B. The critical values table is given to you.

C. The p-value of the test.

D. The observed effect size.

**7. Event sampling involves...**

A. Recording the time a particular behaviour occurs.

B. Counting each occurrence of a behaviour in a group/individual.

C. Recording continuous behaviour across intervals.

D. Selecting random moments to observe.

**8. In matched Pairs Design, which statement is true?**

A. Participants are randomly assigned to groups.

B. Participants are matched on key characteristics. One participant does control condition and the other does the experimental condition.

C. One participant completes all tasks.

D. Each participant experiences both conditions.

**9. In behavioural observations, the target behaviour is...**

A. Aimed to capture participants' internal states.

B. Only described verbally by participants.

C. Broken into observable and measurable behavioural categories.

D. Recorded using only time sampling.

**10. In a negatively skewed distribution, where is the long tail, and where is most data concentrated?**

A. The long tail is on the positive side and most data are centered on the left.

B. The long tail is on the negative side and most data are concentrated on the right.

C. The data are uniformly distributed.

D. The median is always greater than the mean.

# Answers

1. D
2. C
3. C
4. D
5. D
6. B
7. B
8. B
9. C
10. B

# Explanations

## 1. Scattergrams show:

**A. They show differences between groups**

**B. They cannot place either variable on X or Y axis**

**C. They require categorical data**

**D. They show associations between co-variables**

**Scattergrams plot pairs of data points with one variable on the x-axis and the other on the y-axis to show how two quantitative variables relate to each other. The main idea is to identify associations: if the points form an upward pattern, there's a positive relationship; a downward pattern indicates a negative relationship; a cloud with no clear pattern suggests little or no association. This is why scattergrams are best described as displaying associations between co-variables. The other statements don't fit as well. You can swap which variable sits on which axis without changing the underlying relationship, so it's not accurate to say scattergrams can't place either variable on either axis. They don't require categorical data—the core use is to examine how two continuous variables relate, though groups can be indicated by color or shape if needed. And they're not primarily used to show differences between groups; that's more the domain of bar charts or box plots.**

## 2. What type of correlation occurs when one variable increases as the other decreases?

**A. Positive Correlation**

**B. Zero Correlation**

**C. Negative Correlation**

**D. Co-Variables**

**This is a negative correlation. It means there's an inverse relationship: as one variable increases, the other tends to decrease. On a scatterplot, you'd see data points sloping downward, showing that pattern. The stronger the downward slope, the stronger the negative correlation (with values closer to -1). A positive correlation would show both variables moving up together; zero correlation would show no clear linear pattern between them; co-variables isn't a type of correlation.**

## 3. What does the range measure?

**A. The sum of scores**

**B. The variance around the mean**

**C. The dispersion by subtracting min from max and adding one**

**D. The standard deviation**

**The range measures how spread out the data are by using the extremes. It looks at the gap between the smallest and largest values. You find this by subtracting the minimum from the maximum, which gives the spread. In some contexts, it's described as counting how many different values lie between the minimum and maximum, inclusive, which is that difference plus one. For example, if the data go from 3 to 9, the spread is $9 - 3 = 6$, and the inclusive count of possible values is $9 - 3 + 1 = 7$ (the values 3 through 9).**

## 4. Which design reduces the impact of individual differences by pairing participants with similar characteristics and assigning them to different conditions?

**A. Independent Groups Design**

**B. Repeated Measures Design**

**C. Single-subject Design**

**D. Matched Pairs Design**

**Matching participants on relevant characteristics and then assigning them to different conditions is a way to control for individual differences that could cloud the effect of the manipulation. By pairing similar people and distributing each pair across the conditions, the groups start out more alike. This minimizes the influence of factors like baseline ability, motivation, or other personal traits, so any differences in the outcome are more likely due to the experimental manipulation itself. This approach is known as a matched pairs design. It combines the between-subjects structure of having separate groups with the added accuracy of having groups that are comparable at the outset, improving the study's sensitivity to detect the true effect. In contrast, independent groups designs don't form matched pairs, so more participant variability can blur results; repeated measures use the same participants in all conditions and focus on within-subject changes (with its own order effects); single-subject designs concentrate on individual cases rather than balancing groups.**

## 5. Which statement accurately describes a normal distribution?

**A. The tails touch the horizontal axis.**

**B. The distribution is skewed to one side.**

**C. The mean, median and mode are not related.**

**D. The mean, median and mode are all in the centre.**

**A normal distribution is defined by symmetry around its center, with the mean, median and mode all lying at that central point. This means the bell-shaped curve is balanced, and these three measures of location coincide, reflecting that central point. So the statement that the mean, median and mode are all in the centre describes a normal distribution accurately. The other descriptions don't fit: the tails don't touch the horizontal axis—they approach it but never meet; the distribution isn't skewed, it's symmetric; and the mean, median and mode are related and equal in a normal distribution.**

## 6. What is the critical value?

**A. The calculated value is the boundary used to decide significance.**

**B. The critical values table is given to you.**

**C. The p-value of the test.**

**D. The observed effect size.**

**A critical value is the threshold on the test statistic that determines whether the result is statistically significant. It marks the boundary between the rejection and non-rejection regions for the null hypothesis at a chosen alpha level. In practice, you look up these cutoffs in a critical values table for the appropriate distribution (z, t, chi-square, F), and those values are provided to you in exams or reports. You then compare your calculated test statistic to that boundary to decide significance; if it exceeds the critical value, you reject the null. This is why the statement that a critical values table is given to you best captures how the boundary is obtained. The calculated value refers to the test statistic itself, which is compared to the boundary rather than being the boundary. The p-value is a related way to assess significance but is not the boundary itself. The observed effect size describes how big the effect is, not whether the result crosses the significance threshold.**

## 7. Event sampling involves...

**A. Recording the time a particular behaviour occurs.**

**B. Counting each occurrence of a behaviour in a group/individual.**

**C. Recording continuous behaviour across intervals.**

**D. Selecting random moments to observe.**

**In event sampling you record each time the target behaviour occurs and tally every instance. You define what counts as a single event and then note it whenever it happens, giving a total frequency of occurrences during the observation period. This approach is ideal when you want to know how often something happens, not how long it lasts. For example, if you're studying interruptions in a classroom, you'd mark and count every interruption as it occurs. Time sampling, by contrast, looks at whether the behaviour is present within predefined time intervals, which tells you about the amount of time the behaviour is seen rather than the number of separate events. Recording continuous behaviour across intervals would focus on how long the behaviour lasts or persists, not just how many times it occurs. Random moments observed aligns more with spot checks or random sampling, not capturing every instance as it happens.**

## 8. In matched Pairs Design, which statement is true?

**A. Participants are randomly assigned to groups.**

**B. Participants are matched on key characteristics. One participant does control condition and the other does the experimental condition.**

**C. One participant completes all tasks.**

**D. Each participant experiences both conditions.**

**Matched pairs design works by pairing participants on important characteristics and then assigning one member of each pair to the experimental condition and the other to the control condition. This makes the groups more alike on those characteristics, so differences in outcomes are more likely due to the manipulation rather than individual differences. The statement that best describes this is that participants are matched on key characteristics and one participant from each pair goes to the control condition while the other goes to the experimental condition. The other ideas don't fit because random assignment to groups alone doesn't capture the essential pairing step, and a single participant completing all tasks or experiencing both conditions describes designs where one person is exposed to multiple conditions, not the paired, between-subjects structure.**

## 9. In behavioural observations, the target behaviour is...

**A. Aimed to capture participants' internal states.**

**B. Only described verbally by participants.**

**C. Broken into observable and measurable behavioural categories.**

**D. Recorded using only time sampling.**

**The main idea is to define the behavior in observable, measurable terms. In behavioural observation you record what you can see and quantify, not what you think someone is feeling or thinking. To do this reliably, the target behavior is broken into concrete categories that are observable (e.g., actions like reaching, laughing, or fidgeting) and measurable (you can count how often, how long, or with what intensity). This operational definition enables clear coding, consistency between observers, and the ability to analyze data. The other statements don't fit as well. Internal states aren't directly observable in this method, so aiming to capture them goes beyond what behavioural observation records. Observers rely on observable actions rather than only participants' verbal descriptions of their thoughts. And while time sampling can be a method used to record behavior, it doesn't define what the target behavior is—the target remains the set of observable, codable actions.**

**10. In a negatively skewed distribution, where is the long tail, and where is most data concentrated?**

**A. The long tail is on the positive side and most data are centered on the left.**

**B. The long tail is on the negative side and most data are concentrated on the right.**

**C. The data are uniformly distributed.**

**D. The median is always greater than the mean.**

**Negatively skewed means the long tail stretches to the left (lower values), while the bulk of the data clusters toward the right (higher values). So the tail is on the negative side and most data are concentrated on the right. This is why that description is the best match for a negatively skewed distribution. The other statements don't fit: a tail on the right would be positive skew, a uniform distribution has no tail or concentration pattern, and in negative skew the mean is pulled toward the tail and is typically less than the median (not always the median greater than the mean).**

# Next Steps

**Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.**

**As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.**

**If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.**

**Or visit your dedicated course page for more study tools and resources:**

**https://aqapsychresearchmethods.examzify.com**

**We wish you the very best on your exam journey. You've got this!**