

**IB DP Psychology**  
**Higher level**  
**Paper 3 – resource booklet**

The sources in this examination have been collated to assess the claim that technology affects cognitive processes.

**Source 2**

A study investigated whether smartphone multitasking during a lecture affects students' recall. The sample consisted of UK college students.

During a lecture, one group listened while being encouraged to use their smartphones for unrelated activities (e.g., scrolling or checking emails). The other group listened with their smartphones kept out of reach. After the lecture, all students completed a 20-question recall test on the lecture content. Two months later, the procedure was repeated, with students switching conditions. Scores were converted into percentages.

**Table 1** shows the mean recall scores and standard deviations for each condition.

**Table 1: Mean and standard deviation scores of recall per condition**

<b>Condition</b>	<b>% Mean score</b>	<b>Standard deviation</b>
Smartphone	36.5%	4.6
No smartphone	68.2%	1.4

### **Source 3**

A researcher conducted narrative interviews with older adults to explore how technology may act as a source of stress in everyday life. 20 participants aged 65–80, who regularly used digital technologies such as smartphones, online banking, or healthcare apps, took part in the study. A thematic analysis identified the following themes:

- Participants described feelings of overwhelm and frustration when using unfamiliar technologies
- Some reported fear of making irreversible mistakes, such as deleting important information
- Many expressed anxiety about keeping up with rapid technological change

## Source 4

A study investigated whether screen time affects concentration. Participants were randomly allocated to one of two conditions for one week:

- Low screen time condition: Participants were instructed to spend no more than 2 hours per day using screens (e.g., gaming, social media, online activities)
- High screen time condition: Participants were instructed to spend at least 6 hours per day using screens

At the end of the week, concentration was measured using a computer task in which participants pressed a button whenever a green cross appeared on the screen. Scores were converted into percentages.

**Table 2** shows the mean concentration scores and standard deviations for each condition.

**Table 2 Mean concentration scores in percentages by daily screen time**

Screen time group	% Mean concentration score	Standard deviation
Low screen time ( $\leq 2$ hours/day)	74.6%	8.2
High screen time ( $\geq 6$ hours/day)	61.3%	9.1

## Source 5

A study investigated whether technology use affects the accuracy of eyewitness memory. Participants were randomly allocated to one of two conditions.

- Condition A: Participants spent 20 minutes playing an online word game before watching a video of a crime scene
- Condition B: Participants watched the same crime video without using any technology beforehand

After viewing the video, participants were given one minute to recall as many correct details as possible. Accuracy was measured as the mean number of correct details recalled.

**Figure 2** shows the mean recall accuracy scores for each condition.

