Teacher's Key

Video Games and Your Body and Brain: What the Evidence Shows (Level B2)

Vocabulary Matching

1 association = **N**
2 strain = **A**
3 sample = **H**
4 excessive = **L**
5 cognitive = **G**
6 genre = **M**
7 outperformed = **I**
8 bias = **E**
9 contested = **D**
10 transfer = **O**
11 impulse = **J**
12 criteria = **K**
13 significant = **B**
14 prevalence = **C**
15 moderate = **F**

Fill in the Blank

1 association
2 strain
3 sample
4 excessive
5 cognitive
6 genre
7 bias
8 contested
9 transfer
10 impulse
11 criteria
12 prevalence
13 significant
14 moderate

True or False

1 **True.** Paragraph 1 describes an association as a link without proof of cause.
2 **False.** The players were from the United States and Canada.
3 **False.** Excessive gaming was linked with poorer sleep; casual play was not.
4 **True.** It combined studies of one genre, action games.
5 **False.** The gain in training studies was smaller.
6 **True.** Paragraph 3 reports gains in brain areas linked to memory, planning, and movement.
7 **False.** TV and social media showed no such link.
8 **True.** Paragraph 6 gives this time period.
9 **False.** It found not enough evidence to connect violent games with violent crime.
10 **True.** Paragraph 7 reports this result.

Language Focus: Gerunds as Subjects and After Prepositions

Example answer: (1) **Sitting at a screen for hours** is tiring. (2) She improved her reaction time by **practicing every day**.

Comprehension Questions: Model Answers

1 Because results depend on the kind of game, how long and when people play, and how researchers measure an effect. Also, many studies only show an association, not a cause.

2 They reported eye fatigue (56 percent), neck or back pain (42 percent), wrist pain (36 percent), and hand pain (32 percent). The survey should be read with caution because the sample was small and the answers were self-reported.

3 The review of 26 studies found that excessive gaming was linked with poorer sleep and later bedtimes, but casual play was not. In experiments, an exciting game shortly before bed delayed sleep, while a calm but mentally demanding game was followed by more continuous sleep.

4 Regular action-game players outperformed non-players by a medium amount, and training studies showed a smaller gain, mainly in attention and spatial skills. The authors warned of publication bias: published results were about 30 percent larger than those across all the research.

5 Adults who played Super Mario 64 for two months gained grey matter in areas linked to memory, planning, and movement, compared with non-players. It does not prove better everyday thinking, and only 23 adults took part.

6 Sala and colleagues found small or no effects and no evidence that games improve general cognitive ability, which they explain as a failure of transfer. The reading says the teams asked different questions: Bediou's group studied one genre and specific skills, Sala's group all games and general ability.

7 One found that children who played more than average gained about 2.5 IQ points more over two years, with no such link for TV or social media. The other found that children who played three hours or more a day did better on impulse control and working memory tests. They are observational because they compare children instead of assigning them to play.

8 It lists loss of control, giving gaming priority over other activities, and continuing despite harm, with significant problems in daily life, usually for at least 12 months. Estimates vary mainly because of the screening questionnaire, which explained 77 percent of the differences, and because of how samples were chosen.

9 Open answer. Reasonably supported: heavy late-night play is linked with worse sleep, and a small share of players meet the criteria for a disorder. Not established: games raise general intelligence. Debated: attention gains from action games. Little sign of harm from moderate play, but most evidence shows associations.

10 Not Given. The reading reports the players' complaints but says nothing about whether they saw a doctor.

11 Yes. In paragraph 4 the writer says the teams asked different questions and that their findings may disagree less than they first seem to.

12 To show that this study measured play time more reliably than surveys, which depend on memory. This makes its finding of little or no effect on wellbeing more convincing than self-reported studies.

Notes on the Evidence

- Sources checked (September 2026; most read as abstracts, press releases, or news summaries). DiFrancisco-Donoghue et al. 2019, BMJ Open Sport and Exercise Medicine, via APTA and medRxiv summaries: 65 college esports players from nine universities in the US and Canada; eye fatigue 56 percent, neck or back 42, wrist 36, hand 32; 40 percent no physical activity. De Rosa et al. 2024, Video gaming and sleep in adults (abstract: 26 studies; excessive gaming linked with poor sleep quality and delayed timing; arousing game before sleep delays onset; non-arousing, cognitively challenging play followed by improved sleep continuity). Bediou et al. 2018, Psychological Bulletin 144(1) (abstract: cross-sectional g = 0.55, intervention g = 0.34 against other commercial games, top-down attention and spatial cognition, publication bias 30 percent, call for studies over 30 hours). Bediou et al. 2023, Technology, Mind, and Behavior 4(1) (abstract: 105 cross-sectional studies, g = 0.64; 28 intervention studies, g = 0.30). Sala, Tatlidil and Gobet 2018, Psychological Bulletin 144(2) (abstract: three meta-analyses, k = 310, 315, 359; small or null effects; no evidence of a causal relationship; far transfer). Kühn et al. 2014, Molecular Psychiatry (carried over from the previous version, not rechecked: 23 trained adults, at least 30 minutes a day for two months, grey matter in right hippocampus, right dorsolateral prefrontal cortex, and cerebellum). Sauce et al. 2022, Scientific Reports (Karolinska Institutet release and news summaries: 9,855 children at baseline, more than 5,000 at two years, about 2.5 IQ points above the average rise, controlled for genetics and parental education and income). Chaarani et al. 2022, JAMA Network Open (carried over: about 2,000 children, three hours or more a day, stop signal and n-back tasks). Stevens et al. 2021, Australian and New Zealand Journal of Psychiatry 55(6) (abstract: 53 studies, 226,247 participants, 17 countries, 3.05 and 1.96 percent, tool explained 77 percent of variance; a corrigendum exists and was not read). APA Council, February to March 2020 (task force report and resolution via press summaries). Vuorre, Johannes, Magnusson and Przybylski 2022, Royal Society Open Science 9(7) (abstract and OII release: 38,935 players, seven publishers, six weeks, little to no evidence of a causal connection; motivations mattered).
- Evidence limits. The reading simplifies effect sizes: "a medium amount" stands for g = 0.55 (the 2023 update calls its g = 0.64 large) and "smaller" for g = 0.34. "Memory, planning, and movement" simplifies the three regions in the Berlin study. The ABCD studies are observational; the Sauce team adjusted for genetics and family background but causation is not shown, and game types were not separated. The Chaarani analysis is cross-sectional. The WHO decision (World Health Assembly, May 2019; in effect January 2022) was opposed by industry groups and some researchers; the reading does not cover that debate. The Oxford study covered adults who agreed to share data and seven games; a 2024 registered report by Ballou et al. (Technology, Mind, and Behavior) also found no relationship between tracked play time and wellbeing over three months. Not covered: exergames, myopia, photosensitive seizures.
- Revision (September 2026, rebuild mode). Corrections: esports figures changed from 52, 41, 36, and 30 percent (as given in a 2022 review table) to 56, 42, 36, and 32 percent (as reported from the original study); the 2021 Oxford study of 3,274 players and two games was replaced by the larger 2022 Oxford study of 38,935 players and seven games, which found little or no effect rather than a small positive relation; the Bediou 2023 update was added; the unverified claim that three hours a day exceeds American Academy of Pediatrics guidance was removed; the garbled sentence comparing the two 2018 reviews was rewritten; the Language Focus examples that were not gerunds after prepositions (giving, continuing after include) were replaced. Reading simplified for B2 (effect sizes and brain region names described in plain words). Vocabulary: overall and exceeds dropped (overall was transparent; exceeds overlapped in meaning with excessive); outperformed and prevalence added. IELTS True/False/Not Given item replaced (the old item mixed two studies). Discussion questions that relied on removed claims were rewritten. The reading gives general information, not medical advice. The Hindi and Arabic translations have not been checked by a native speaker.