

An investigation into the effects of Technostress (TS), Compulsive Social App Usage (CSAU) and Fear of Missing Out (FOMO) on Post-Primary Students in Ireland

Hypotheses

We have formulated **three hypotheses** as follows:

- **H1:** Accessibility to others is positively associated with technostress.
- **H2:** The usefulness of completing work-related tasks and the ease of use of technology is negatively associated with technostress.
- **H3:** Perceived academic performance and techno-stressors will be inversely proportional to one another.

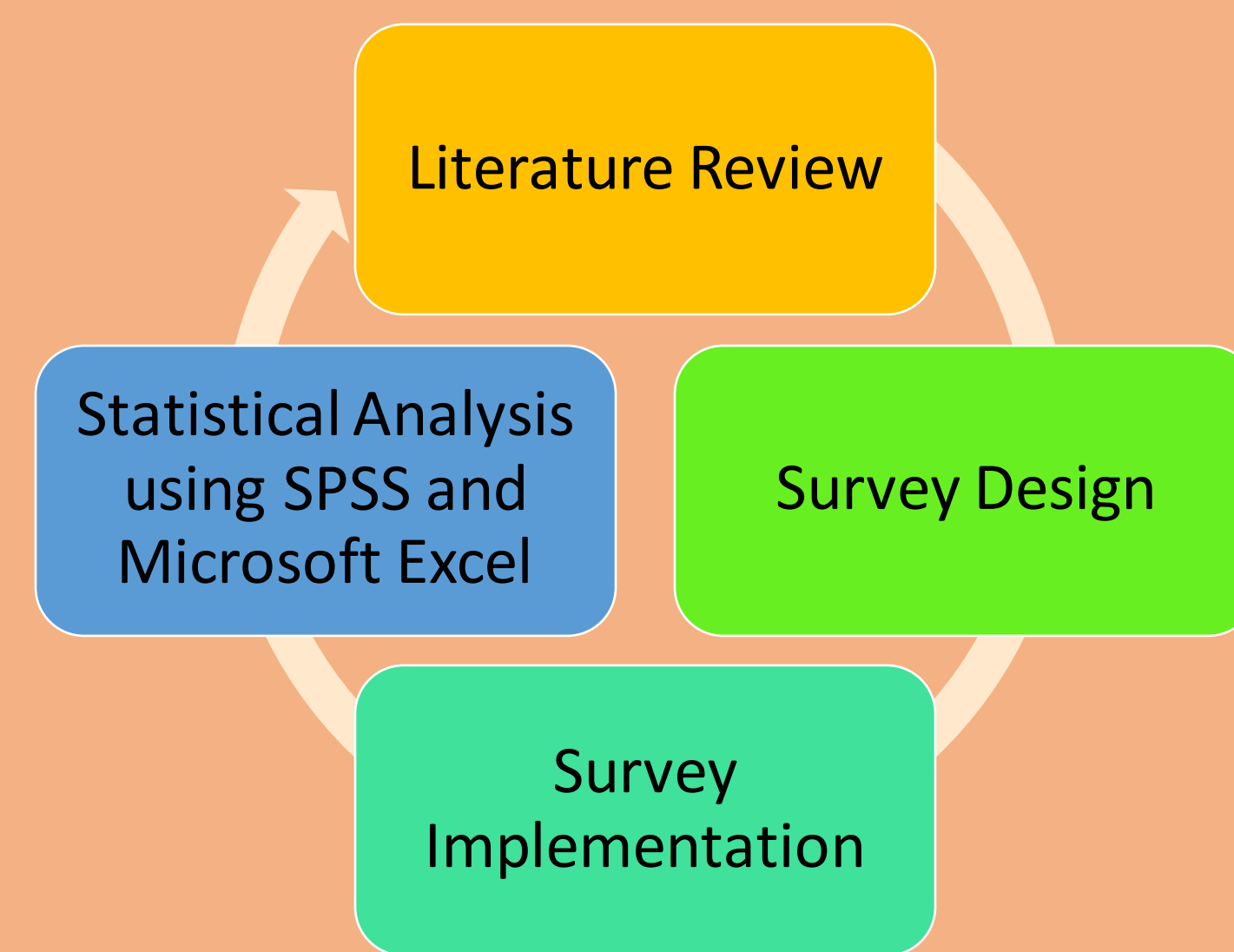
Aims

- To investigate the most common psychological, physical and academic-performance based symptoms of technostress experienced by second-level students in Ireland.
- To identify the most popular social media platforms used among second-level students.
- To identify how much time students spend on various social media platforms during class and during lunch time.
- To examine the knowledge of second-level students in relation to their school policy on mobile phone usage
- To identify the most effective school policy on reducing students' level of mobile phone usage during the school day.

Research Methodology

The researchers studied existing studies on Technostress (TS), Compulsive Social App Usage (CSAU) and Fear of Missing Out (FOMO) by literature review when designing the questionnaire. Following careful study, a questionnaire was created using the Microsoft Forms tool, with **43 questions** divided into **ten sections**:

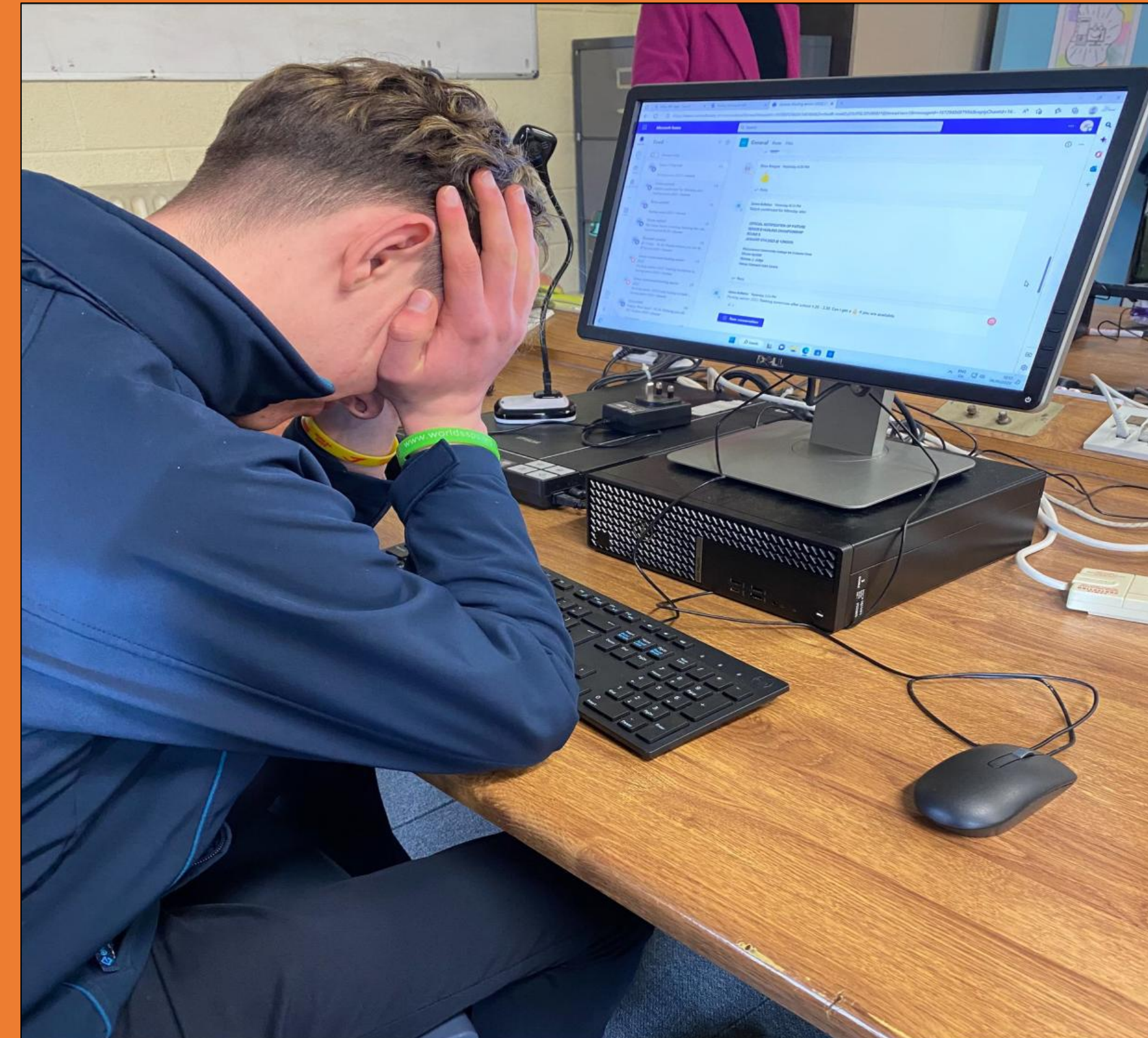
- **Section 1:** Demographic Data
- **Section 2:** ICT Usage
- **Section 3:** Techno Stressors and Social Networking Stressors
- **Section 4:** TS and CSAU Effects and Symptoms
- **Section 5:** Social media usage
- **Section 6:** Usage of different types of technologies
- **Section 7:** Techno-stressors
- **Section 8:** CSAU
- **Section 9:** Complexity of technology
- **Section 10:** Effects of technostress



The questionnaire was distributed using Microsoft Forms to a random sample of secondary schools as outlined previously, ensuring efficient and cost-effective dissemination, providing rapid access to response details, and including start and end dates. It was given to 1,242 students at random from all years. There were 235 valid responses submitted and validated. The graphs were created and generated using Microsoft Office's "Excel" software and through SPSS software programmes. The results of the online questionnaire were displayed in graphs, tables, and pie charts, and they were analysed in both Microsoft Office Excel and SPSS.

Limitations

- On review of our collected survey data, it became evident that although students were advised that the questionnaire was anonymous with no reprisal from their school discipline system, there was a high level of "no answer" to Q10, Q12, Q14 represented in Figure 4.1 - and Figure 4.2 - *how long students spent on their mobile phones during class time on a school day, and during break and lunch times*. Although Q15 and Q17, where **all** respondents indicated the social media type they use during the day, somewhat addressed this limitation. However, this limitation will be considered in future research as a fundamental difference for carrying out research at second level as opposed to third level, where most of the research we reviewed for this study was from a university context and a limitation that we did not foresee at the time of the questionnaire design.
- We had hoped the response rate would be higher, with 235 responses for the 1,242 electronic forms issued through the school's Microsoft Teams student accounts portal by our Principals. On review, there would be two areas we would review – Firstly, the length of the questionnaire. Secondly, to review a modification to how we gathered the data. Although collecting the data through an electronic form is very efficient, the anonymity of questionnaire and having to depend on a third party to support the data collection are factors of note.
- The lack of previous research on "technostress" within the second-level context posed difficulty in how we would approach the study within our context.

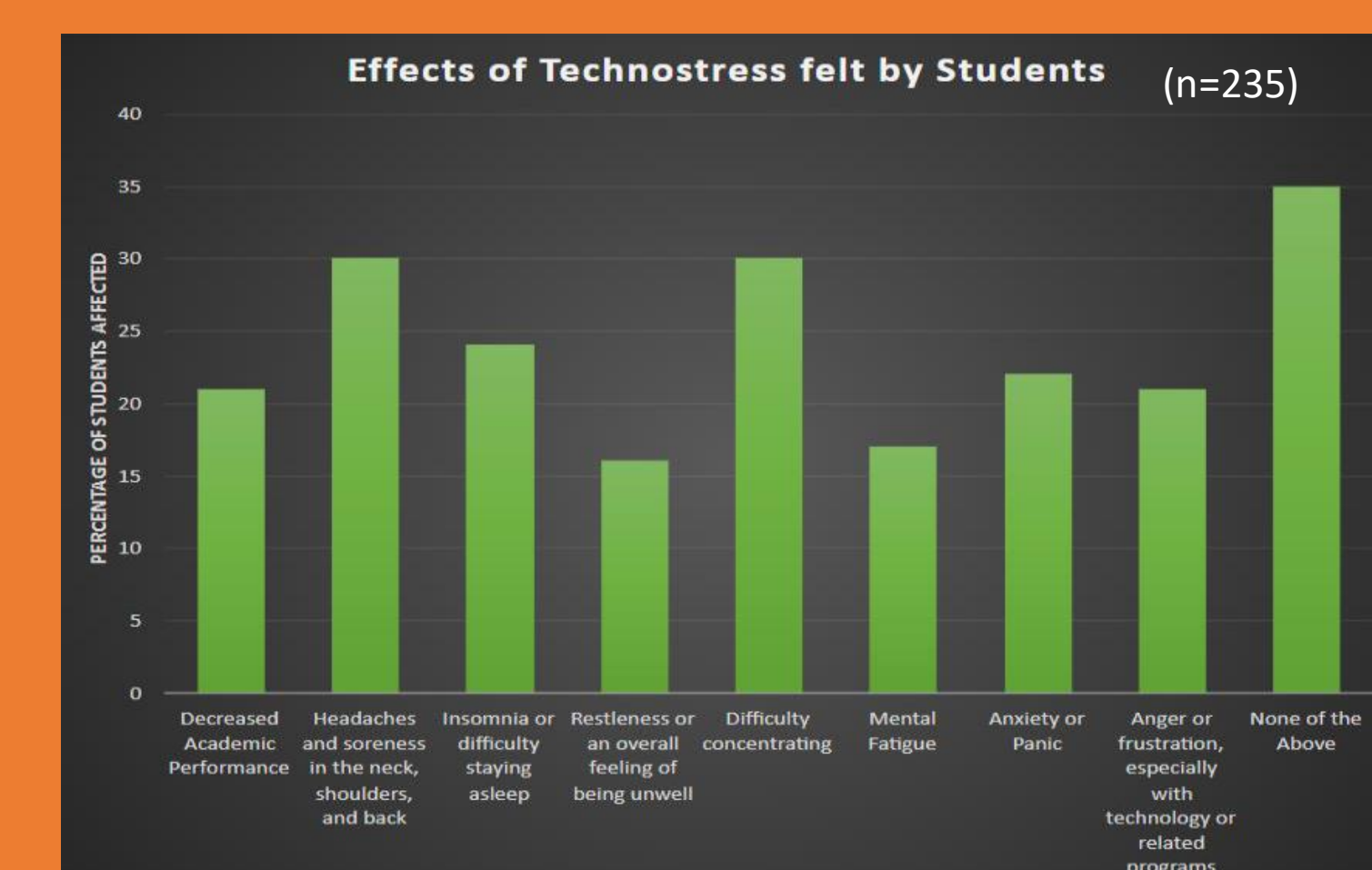
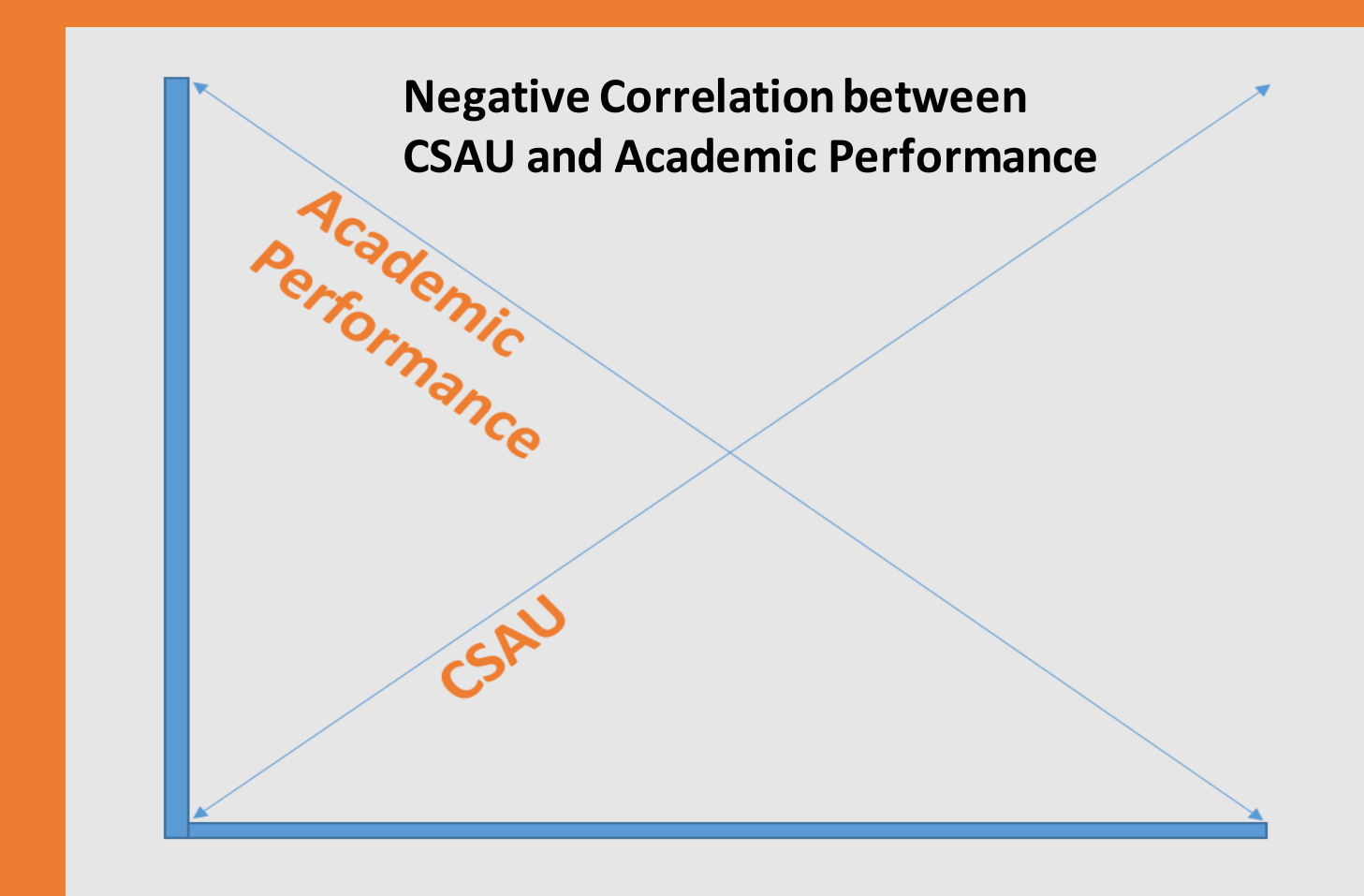
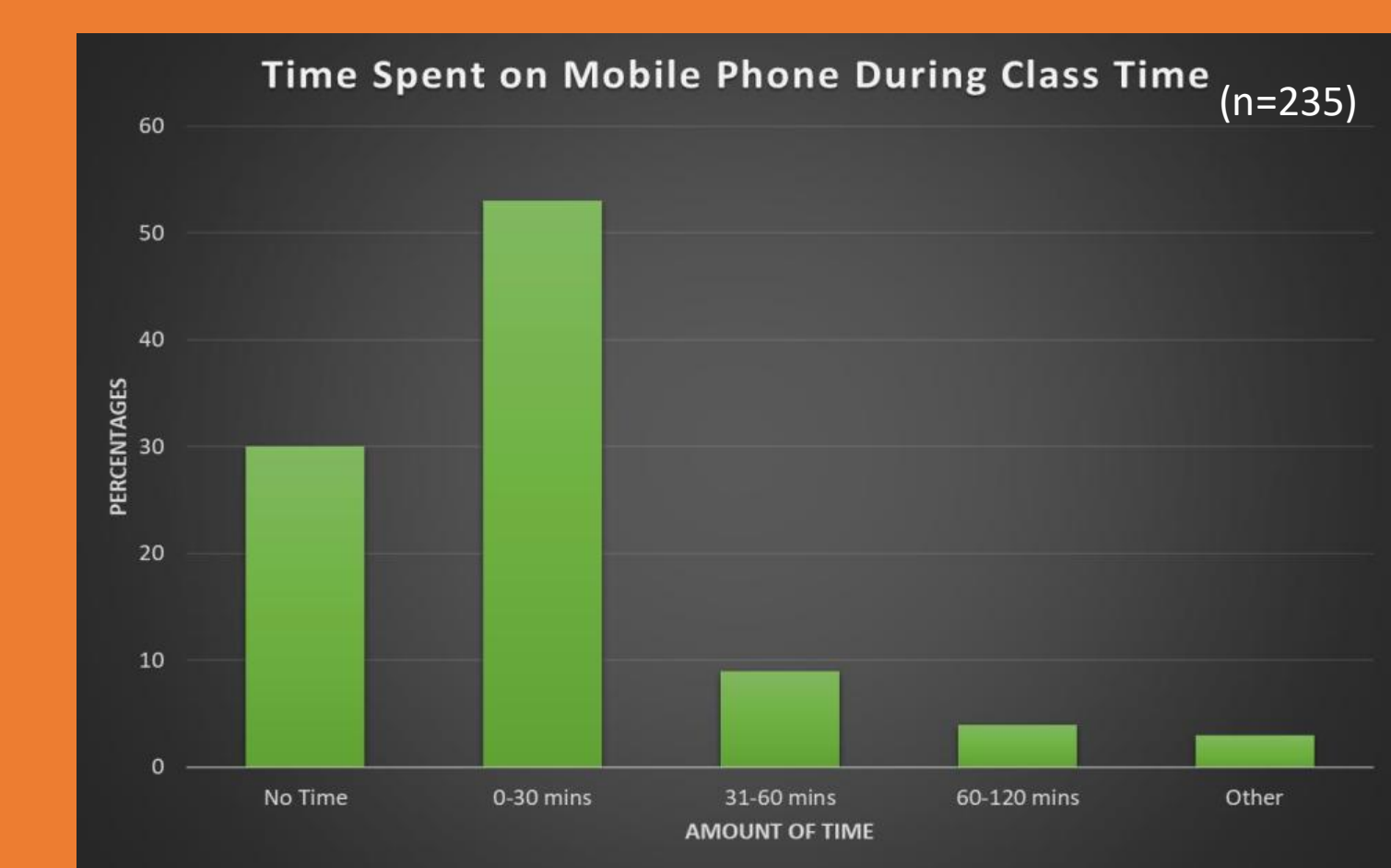
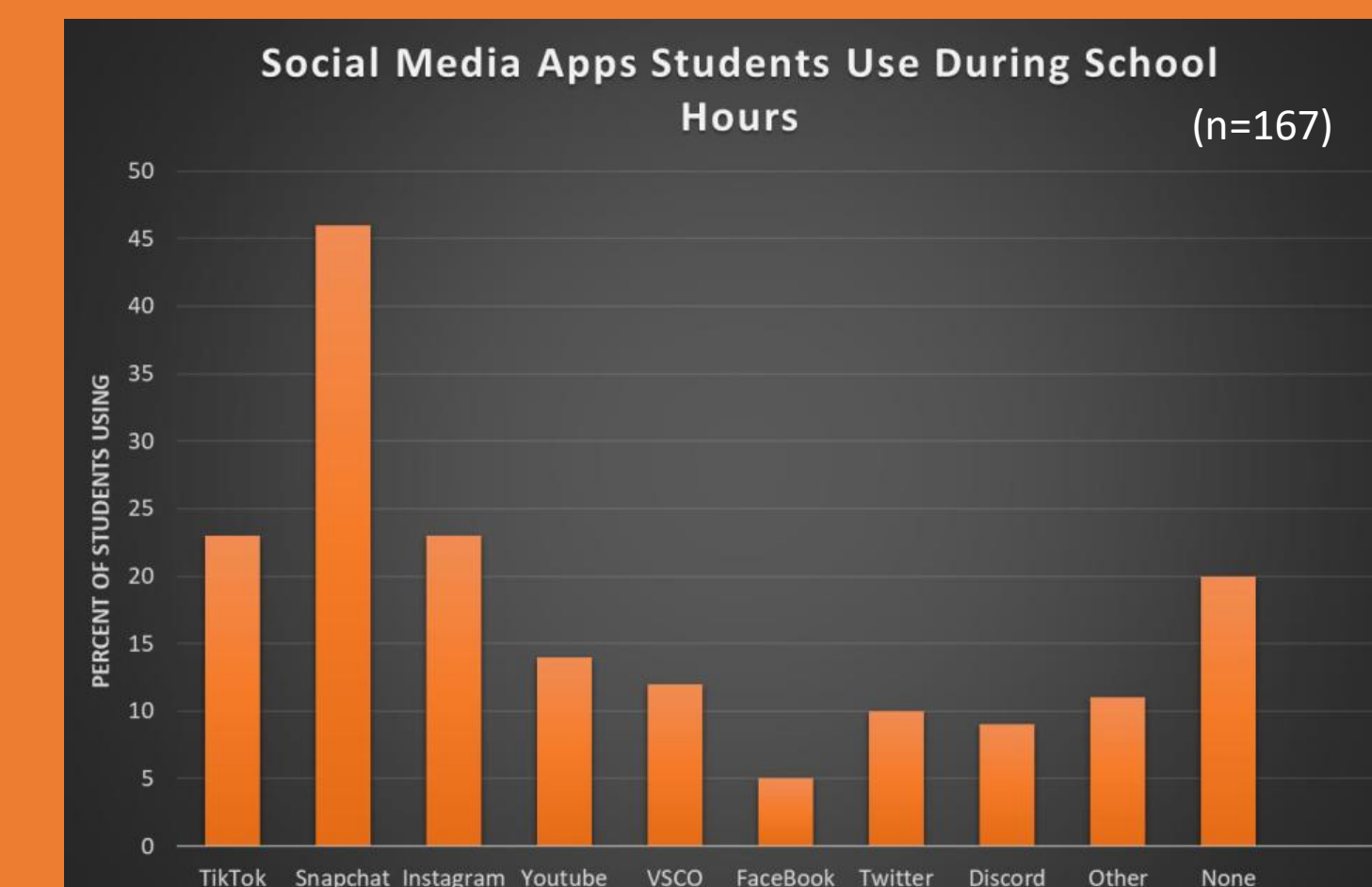
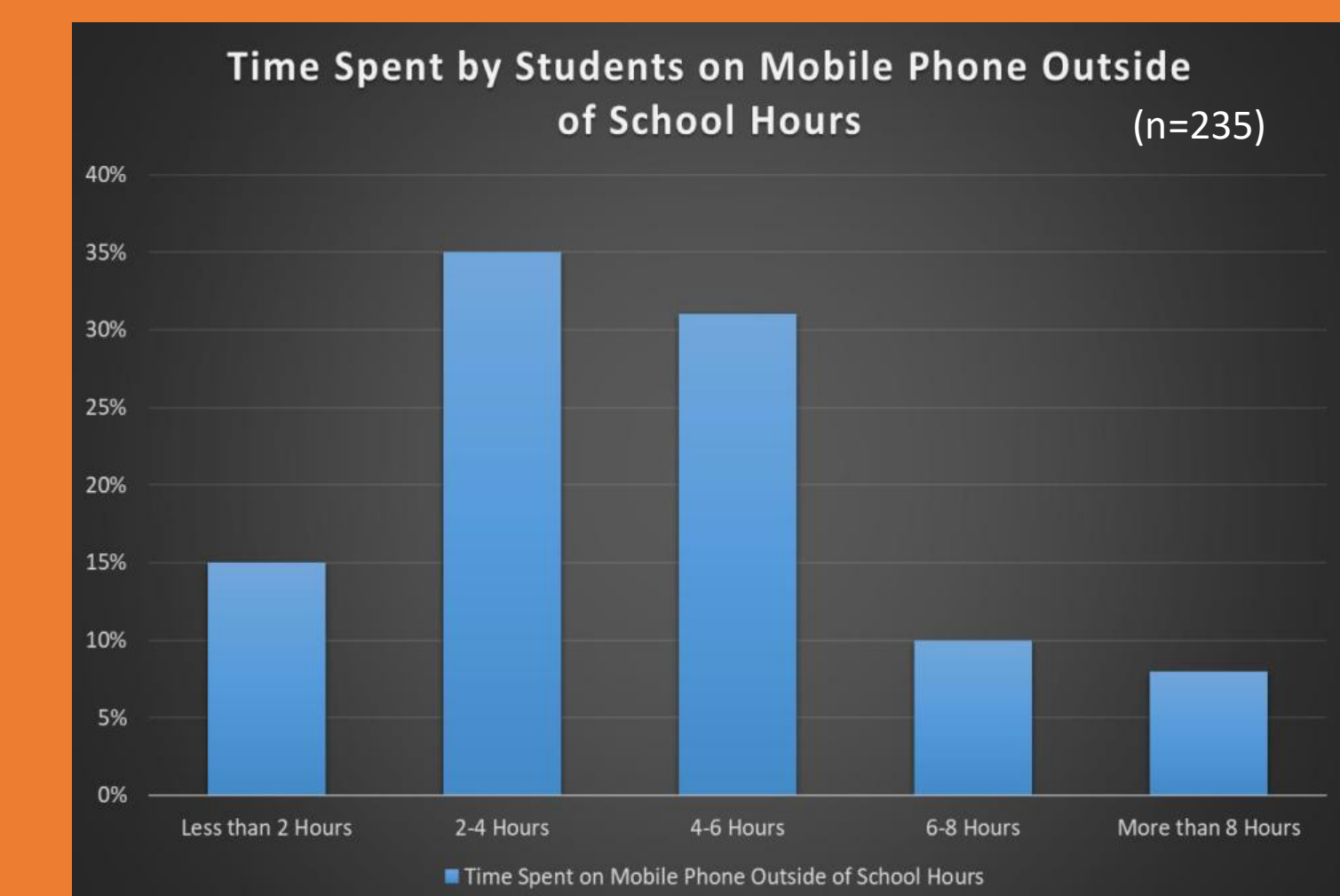
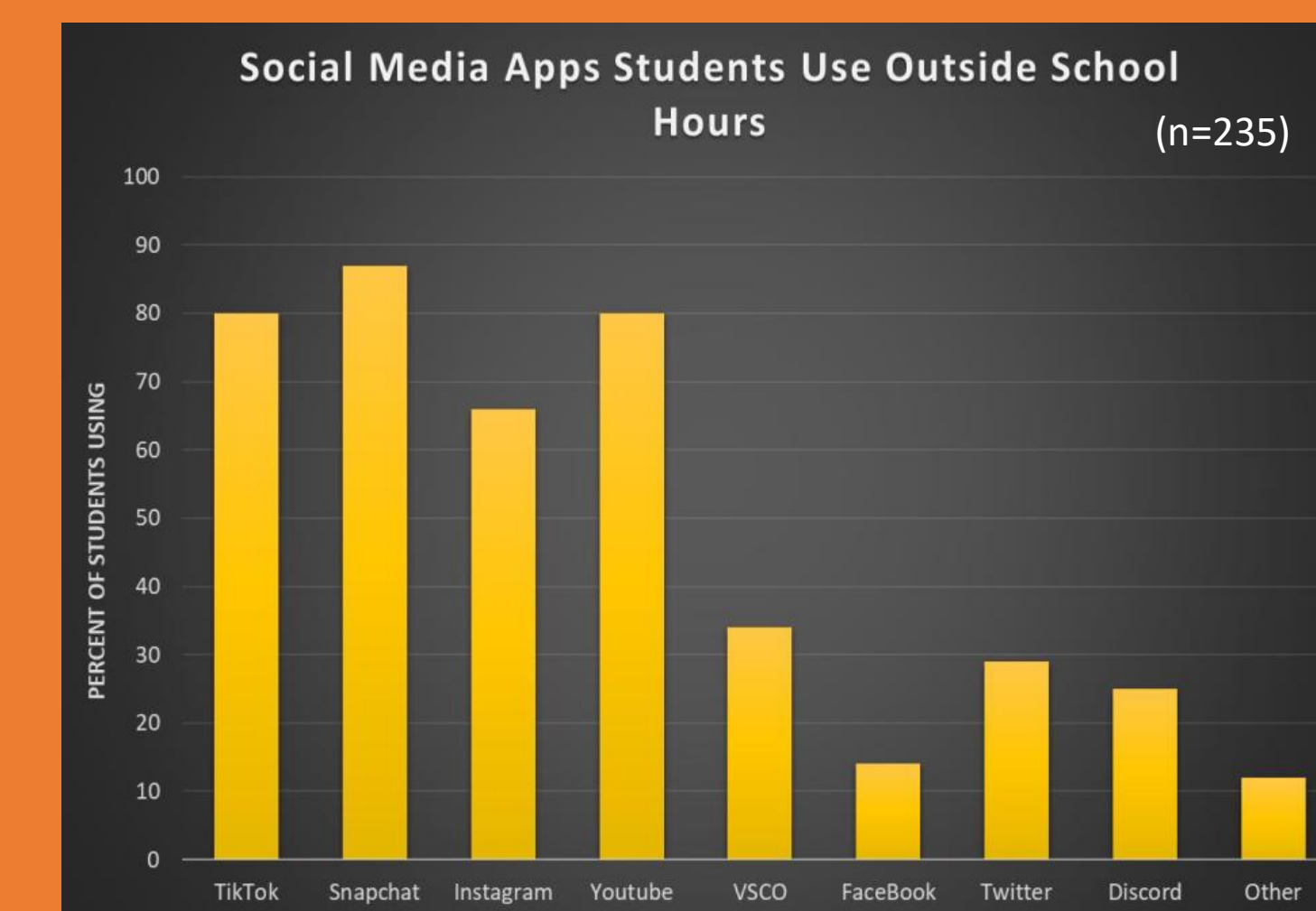


Summary

- Our main aim was to find out if technostress had a negative effect on the academic performance of students. We found that it **did not** have an effect on it. We found Compulsive Social App Usage (CSAU) to have a negative correlation with self-perceived academic performance. The more accessible someone feels to others and the more access they feel they have to others, via technology, the higher their levels of technostress are likely to be. This supported our first hypothesis. Interestingly, the higher students' level of accessibility via technology, the higher their level of self-perceived academic performance was.
- Almost 70% of our sample group of students had identified with experiencing at least one of the symptoms of technostress we listed. In a school where using phones without the permission of a teacher is banned, 70% of pupils indicated using their phone in class. We found that when students find technology easy to use, they are more likely to find it useful.

Main Findings

1. We found Compulsive Social App Usage (CSAU) to have a negative correlation with self-perceived academic performance. This means the higher the rate at which someone exhibits traits of CSAU, the worse their academic performance is likely to be.
2. Techno-stressors were not found to have any connection with self-perceived academic performance. We rejected our hypothesis that the higher the levels of technostress experienced by someone was, the lower their academic performance would be.
3. Almost 70% of our sample group of students had identified with experiencing at least one of the symptoms of technostress we listed.
4. In a school where using phones without the permission of a teacher is banned, 70% of pupils said they used their phone in class. While 55% of students said they used their phones for an average duration of between 1-30 minutes a day, another 14% identified as using their phone for between 31-180 minutes a day in class.
5. The more accessible someone feels to others and the more access they feel they have to others, via technology, the higher their levels of technostress are likely to be. This supported our first hypothesis. Interestingly, the higher students' level of accessibility was via technology, the more likely they were to have higher levels of self-perceived academic performance.
6. While TikTok, Instagram, Snapchat and YouTube were found to be students most used apps in their free time, with between 65 and 90% of students using them. Snapchat was by far the most used during class time, when students were breaking the rules and at risk of having their phone confiscated.
7. We found that when people find technology easy to use, they are more likely to find it useful.



Recommendations

- We recommend that technostress, like dealing with other types of stress, can be managed with the aid of coping strategies. Methods such as "user-friendly software," education on modern technology, mental and physical relaxation, and restriction of use of technology in some aspects of life. Both (Chiappetta, 2017) and (Ragu-Nathan et al., 2008) suggest that incorporating general stress management activities such as exercise, meditation, staying healthy, healthy diet, muscle relaxation into daily life can all also lessen technostress.
- We also recommend that students, through their SPHE Programme in school, could be educated on the effects of technostress, noting that to be mindful of technostress and having the strategies to actively combat them are two very different things. This is further supported by Homaid (2022). Students should be aware of its dangers in terms of an academic performance, and mental and physical health standpoint. Students should know what causes higher levels of technostress and how to decrease their risk to it and deal with its effects.
- To recommend a solution to this problem, we first looked at how other countries have tackled this issue. We found that in some countries, the policy on school-wide bans has been decided by governments, such as France, Israel, and some Canadian and Australian states (Selwyn & Aagaard, 2019). Whilst bans have been shown to be broadly supported by parents and considered necessary by teachers, research shows that rules on phones and other technology use are inconsistently implemented by teachers. Furthermore, it has been found that pupils get around rules by using phones in their pockets during the school day. This was supported by our findings where it can be evidently seen that apps such as "Snapchat" rate very high on usage given the ability to execute very quick communication whereas this app is not as prevalent outside of school. We would recommend that the solution is not prohibition, as eventually students still use their phone regardless of school policy. This is not without its challenges, if we are shaping tomorrow's workforce, we must consider how we prepare students to be part of it and having a greater understanding of how best to manage mobile technology is essential.