



SOUTH AUSTRALIAN DIGITAL YOUTH SURVEY

RESEARCH REPORT: YEAR 1 RESULTS

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INTRODUCTION

The South Australian Digital Youth Survey (DYS) is a world-first longitudinal project exploring how adolescents use digital technology and how this changes over the course of adolescence. The project examines the links between how adolescents use technology and pathways into cyber risk-taking. In studying these links, this project seeks to identify the *technical, social, and individual* circumstances by which adolescents get drawn into cyber risk-taking. Understanding more about these circumstances will inform the development of prevention measures to mitigate such risk.

To accomplish this task, the DYS involves a longitudinal survey of a cohort of South Australian Year 8 students commencing in 2018. A total of 18 government schools from the Adelaide Metropolitan Region (i.e. located within 100 kilometres of the CBD) participated in the project with 1,921 students¹ completing wave 1 of a paper-based survey. This research report presents results from the first wave of data collection. We will provide longitudinal findings from the DYS at conclusion of wave 2 of the survey (Q1 2020) and at subsequent waves.

¹ Note: Sample sizes per analysis vary due to missing responses.

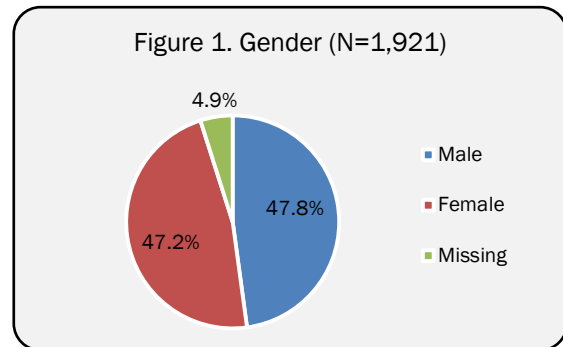
Snapshot of DYS wave 1 findings:

- Students demonstrate considerable variation in terms of the types of devices they use, as well as the time spent using them.
- The majority of students demonstrate either basic or intermediate technical skills.
- When using their devices, students frequently engage in various routine and social tasks, and spend far less time engaging in specialised tasks such as coding.
- Over 75% of students have engaged in at least one type of cyber risk-taking. Copyright infringement related activities, such as downloading copyrighted material without permission, was the most common type of this behaviour.
- For most adolescents surveyed, cyber risk-taking was episodic and reflected less serious forms of risk taking.
- There is significant overlap between cyber risk-taking and physical risk-taking.
- The key variables associated with cyber risk-taking were: engaging in physical risk-taking, being male, the frequency of engaging in specialised, social tasks, and routine tasks online.

PROJECT SAMPLE CHARACTERISTICS

Gender

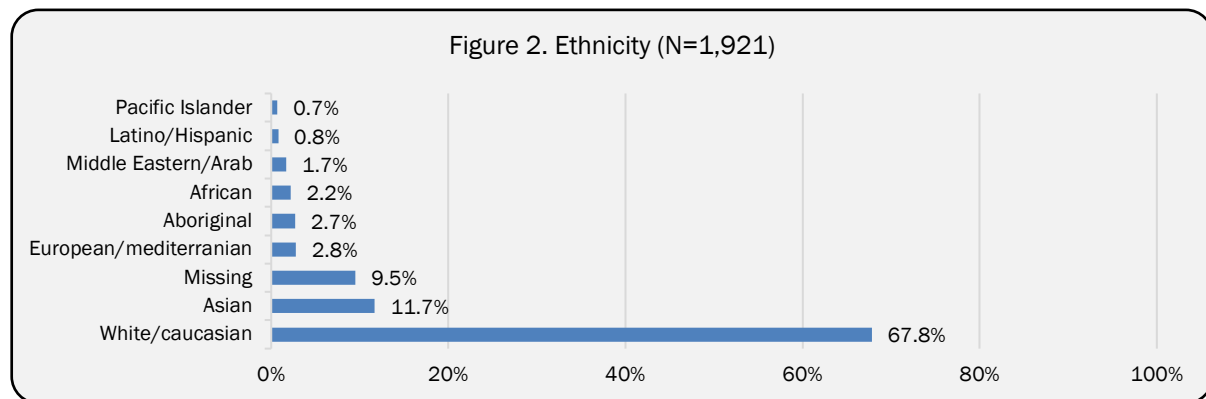
Figure 1 shows that the sample was split evenly, with males making up 47.8% of the sample and females representing 47.2% of the sample. 4.9% of the entire sample left the gender question blank.



Ethnicity

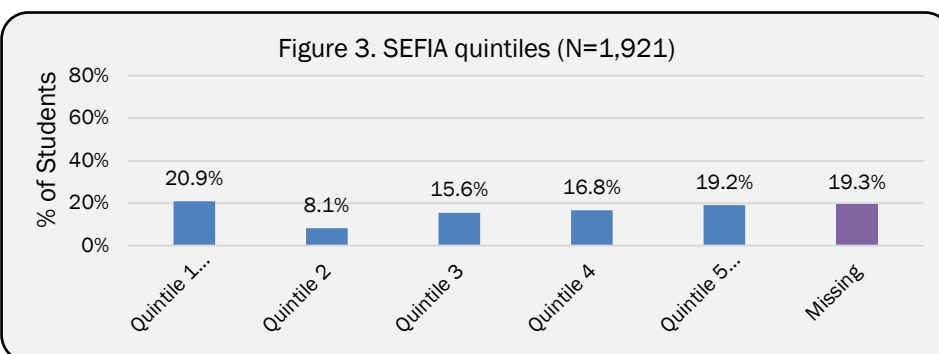
Figure 2 shows that over two-thirds of the students reported Caucasian ethnicity (67.8%). Just over 10% of the sample reported coming from an Asian background (11.7%), and less than three percent of the sample reported a European/Mediterranean (2.8%),

African (2.2%), Middle-Eastern/Arab (1.7%), or Pacific Islander (0.7%) background. About three percent of the sample reported an Aboriginal background (2.7%) and in 9.5% of cases data were missing.



Socioeconomic Status

Figure 3 presents information about participants socioeconomic status – using the Australian Bureau of Statistics' *Socioeconomic Indexes for Areas (SEIFA)*. SEIFA indexes the average income and employment status of individuals living within geographical areas defined by postcode. SEIFA quintiles were derived from the 2015 Australian census, and range from most disadvantaged (quintile 1) to least disadvantaged (quintile 5). This graph shows the distribution across SEIFA quintiles for the overall sample.



KEY RESULTS FROM THE YEAR 1 SURVEY

Understanding how adolescents use digital technologies

Students reported using digital technologies virtually all the time. For example, the average number of hours reported spent using any device was 12.3 hours per day (albeit with considerable variation, standard deviation = 9.0)! This of course has much to do with how students interpreted the question and whether some interpreted this to include passive time connected to the internet (e.g. having a smart phone, receiving texts, downloading content in the background).

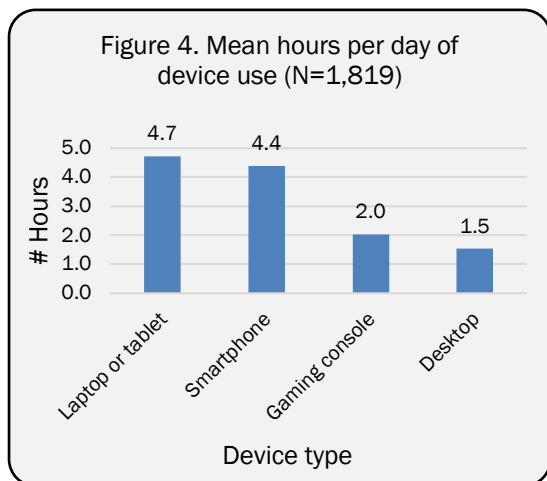
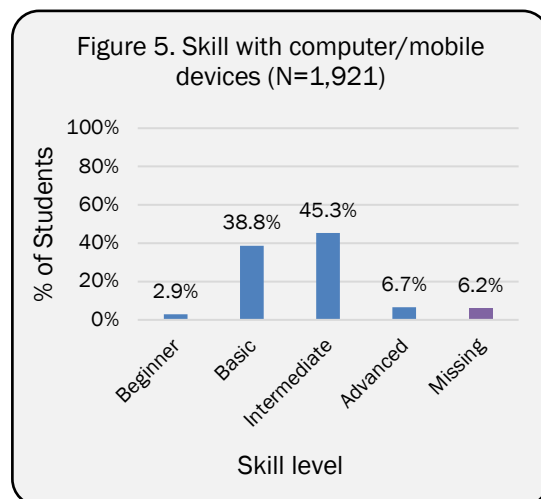


Figure 4 shows the average hours per day students reported spending on different digital devices. The results show that on average, students spent equivalent amounts of time on laptops or tablets (4.7 hours per day) and smartphones (4.4 hours per day), and considerably less time using desktop computers and gaming consoles (1.5 and 2.0 hours respectively).

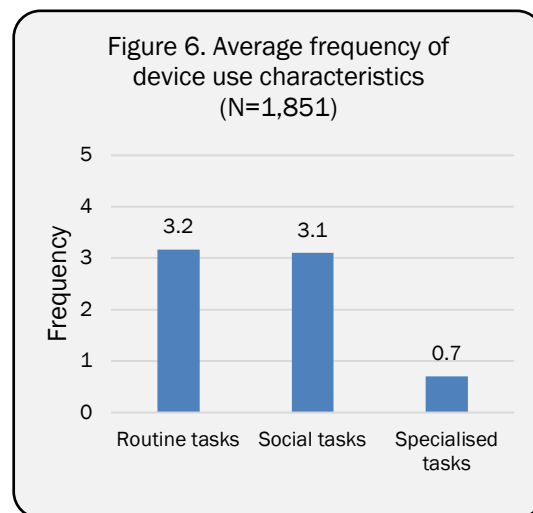
Figure 5 depicts the technical skills of students, who were asked to rank their level of comfort performing various technical functions with software and hardware. Students responses were categorised in four ways. A participant was listed as a 'Beginner' if they indicated they do not use computers/mobile devices unless they absolutely must. 'Basic' meant that students indicated they can use the internet and common software but would not feel comfortable fixing their own computer/device. 'Intermediate' meant that students indicated that they can use a variety of software and can also fix some computer/device problems they run into. Finally, 'Advanced' meant that students can undertake particularly complex tasks such as using operating systems such as Linux as well as most software they come across in addition to fixing most computer/device issues they run into. The below graph shows that the majority of students reported basic to intermediate technical skills, with similar proportions reporting in each of these two categories.



Understanding adolescent online engagements

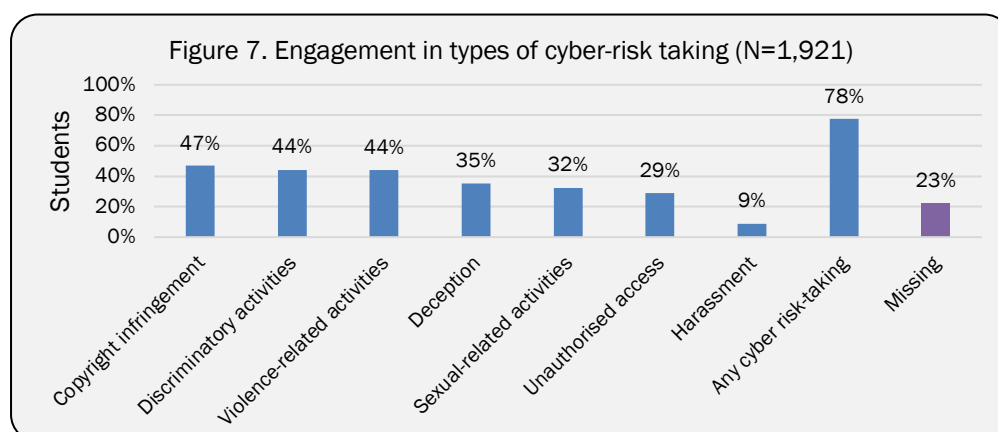
Figure 6 shows the frequency of three broad types of online activities the students reported engaging in. These activities were categorised into three groups including: (1) routine tasks (e.g. using search engines, email, instant messaging, watching videos and viewing images outside of social media); (2) social tasks (e.g., browsing social media such as Facebook, posting on online forums, sharing photos on social media websites); and, (3) specialised tasks (e.g. creating websites, file sharing, coding, banking, using anonymisation software). Frequency was measured on a five-point Likert scale ranging from 0=Never to 5=Several times a day. The results show

that, on average, students reported spending about equal amounts of time engaging in routine tasks and social media and far less time engaging in specialised tasks.



Understanding adolescent cyber risk-taking

Figure 7 shows proportions of students who reported engaging in different types of cyber risk-taking. The labels on the x-axis represent a broad range of activities. For example, 'copyright infringement' refers to viewing, sharing or downloading content that should have been paid for. 'Discriminatory activities' refers to viewing discriminatory web content, whereas 'violence-related activities' includes viewing violent content against people whom the student may or may not know. 'Deception' behaviours include lying about their identity; purchasing or selling illegal items or tricking people into sending information or money. The 'sexual-related activities' label reflects viewing sexual content or sending and receiving sex related images. 'Unauthorised access (or hacking)' refers to accessing other people's devices or accounts without their permission. Finally, 'harassment' refers to searching for information and/or sharing information with other people to make them feel uncomfortable. Over three quarters (77.5%) of students reported ever engaging in at least one of these types of risky cyber behaviours. Nearly half of students reported engaging in IP infringement (46.9%), discriminatory (44.1%) and violence-related (43.9%) activities. Approximately one-third of students reported engaging in deception (35.2%), sexual-related activities (32.3%) and unauthorised access (28.8%). About one in ten students (8.8%) reported using their devices to harass others. Just over one-fifth (22.5%) reported abstaining from any such cyber risk-taking.

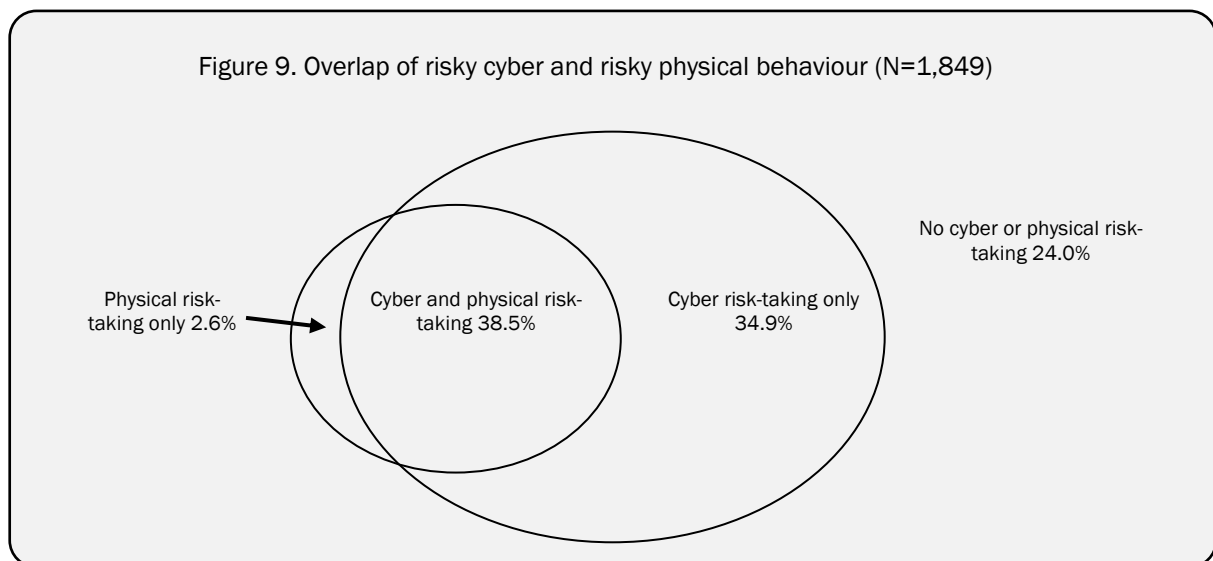
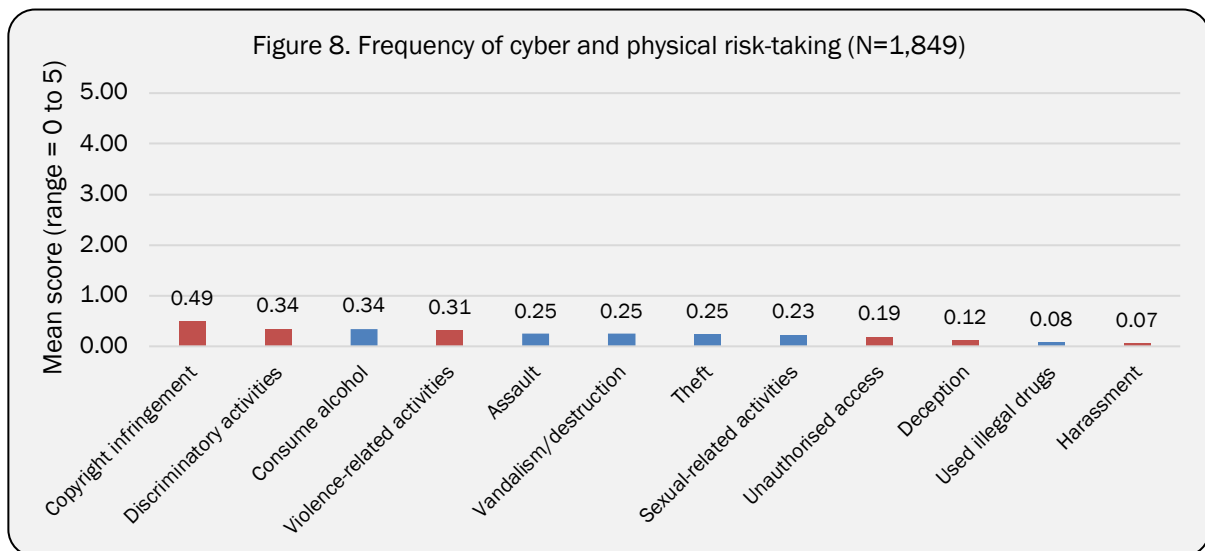


Understanding cyber versus physical risk-taking

Figure 8 shows that while about three quarters of students reported engaging in cyber risk-taking, overall these experiences were extremely infrequent; measured on a scale of 0 to 5 (0=Never; 1=Less than weekly; 2=About once a week; 3=Several times a week; 4=About once a day; and, 5=Several times a day). The average frequency of cyber risk-taking was 0.5 or below across all categories – meaning that students, on average, reported engaging in these

activities somewhere between never and less than weekly. Similar low frequencies were reported for risky physical activities such as theft, consuming alcohol, using illicit drugs or fighting. Though both physical and cyber risk-taking behaviours were rare, they were also in fact related.

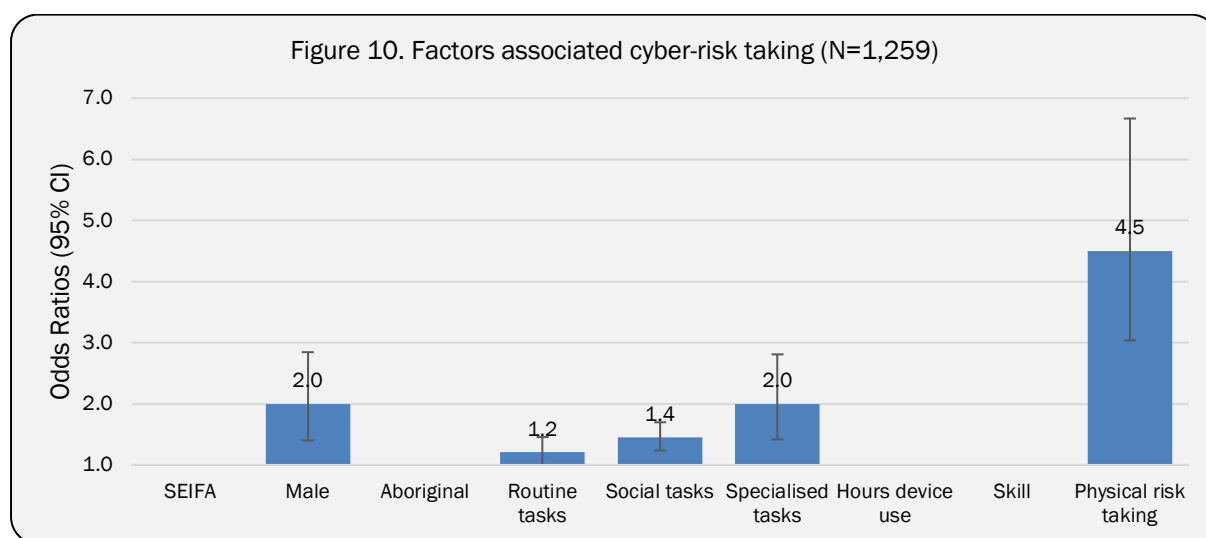
Figure 9 shows that of students who reported cyber risk-taking, in about half of these cases the cyber and physical risk-taking co-occurred. Just under half reported cyber risk-taking but no physical risk-taking, and a minority reported *only* physical risk-taking.



Identifying factors associated with cyber risk-taking

Figure 10 shows that there are five key factors associated with cyber risk-taking: being male, as well as engaging in specialised, social and routine tasks while on line. The most significant factor for cyber risk-taking was engaging in risky behaviours in the real world. More specifically, students who reported engaging in physical risk-taking were 4.5 times more likely than those who did not to engage in cyber risk-taking. Males were twice as likely as females to engage in

cyber risk-taking, and for every unit increase in the frequency of specialised tasks students were twice as likely to engage in cyber risk-taking. Comparatively, for every unit increase in the frequency of social tasks and routine tasks, students were 40% and 20% more likely to engage in cyber risk-taking respectively. These results suggest there is an important overlap in physical and cyber risk-taking, and that how adolescents engage with technology helps us to understand cyber risk-taking, particularly among adolescent males.



FUTURE DIRECTIONS FOR THIS PROJECT

The DYS provides a useful snapshot of self-reported digital uptake and risk-taking by Year 8 adolescents in 2018. We hope that this information will provide schools and parents with a better understanding of the different ways that adolescents use digital technology and the implications for risk-taking (both on- and offline). Furthermore, we hope that this information will help schools plan their activities and programs to support their students. Follow-up surveys in 2019 and beyond will permit longitudinal analysis and provide further understanding of how such risk-taking changes over time.

