ASSIGNMENT 1 BRIEF

Qualification	**BTEC Level 5 HND Diploma in Computing**		
Unit number	UNIT 13: Computing Research Project		
Assignment title	Proposing and conducting a research project		
Academic Year	2019 – 2020		
Unit Tutor	DO Quoc Binh		
Issue date		**Submission date**	
IV name and date			

Submission Format:
Format: The submission is in the form of 1 document You must use font *Calibri size 12, set number of the pages and use multiple line spacing at 1.3. Marg* *must be: left: 1.25 cm; right: 1 cm; top: 1 cm and bottom: 1 cm.* The reference follows Harva referencing system.

Submission Students are compulsory to submit the assignment in due date and in a way requested by the Tutors. The form of submission will be a soft copy posted on http://cms.greenwich.edu.vn/

Note: The Assignment *must* be your own work, and not copied by or from another student from

books etc. If you use ideas, quotes or data (such as diagrams) from books, journals or other sourc you must reference your sources, using the Harvard style. Make sure that you know how to referer properly, and that understand the guidelines on plagiarism. *If you do not, you definitely get failed*

Unit Learning Outcomes:

LO1 Examine appropriate research methodologies and approaches as part of the resear process

LO2 Conduct and analyse research relevant for a computing research project

LO3 Communicate the outcomes of a research project to identified stakeholders

Assignment Brief and Guidance:

Scenario

Digital Wellbeing is about fashioning and sustaining a healthy relationship with technology. As technology plays a big part in our lives we find ourselves spending an increasing amount of time online and on our devices. Our wellbeing is dependent upon our mental and physical health and thereby our digital wellbeing is influenced by our online interactions and the amount of time we spend on our devices.

Whilst technology and the internet can simplify and enhance our lives they can also be distracting, b a cause of anxiety, and make us feel upset. Being in control of technology enables us to use its f potential and gain all the benefits of it.

This unit will enable students to explore some of the areas of digital wellbeing from the standpoint
a prospective computing professional. It will provide the opportunity for students to investigate
digital wellbeing within computing systems and explore the responsibilities and solutions to the
problems presented.

The range of topics discussed cover the following

- How to find the balance towards a healthy relationship with devices?
- Are tech companies responsible for the health, safety and wellbeing of users?
- What tools and strategies can a company use to develop a system(s) that addresses digital wellbeing for users?
- What impact will future digital tech have on human wellbeing?

You have to set you own research question in the research proposal base on the previous range of top
The research question must be specific enough example: the audience of the research(job, age
kind of devices(personal devices, household appliances, or combination of some kinds)

Marking Process

The assignment will be marked based on holistic assessment approach:

- Holistic marking is when the tutor makes academic judgements on grading based on t assignment **as a whole and how criteria contribute to the quality of the work, rather than individual parts**
- Assessment criteria **are not completed** and marked as individual tasks.
- Assessment criteria are holistic in context but may also contain reference to specific conte matter to provide guidance for the student if required

Report structure

The recommended outputs of the research are two reports. The first report should cover at least th
following sections:

1. Introduction the purpose of the research

Introduce the research' purpose, main aims and objectives of the project. What the research will do
and don't

2. Literature review
   - Discuss research methodologies: primary research, secondary research, qualitative, quantitative, scientific method, research processes, population in research…
   - Specify which research methods will be used to carried out the research

- Do a secondary research about
  - Discuss Wellbeing: wellbeing and related products
  - AI in your selected topic (for example: the relationship of Wellbeing and smartphones)
- Conclusion, propose **initial hypothesis** after the literature review and need to confirm in primary research

3. Primary research
   - Design of primary research: which techniques will be used to collect data such as interview, questionnaire, experiment...; the population of the research. All the data collected in this stage must be supplied in the appendix
4. Analyse the result of the primary research
   - Provide the research 'result with diagrams, numbers
   - It should confirm or reject the hypothesis in the literature part
   - Provide recommendations for improving the system or future research which could enhanc the results of the current research.
   - Suggest the research's results to some audience (how it is useful for them)
5. Approved project proposal-appendix
6. Approved project plan-appendix
7. Ethical form
8. Other materials which collected while conducting primary research: interview scripts, audio experiment notes-appendix

Learning Outcomes and Assessment Criteria		
Pass	**Merit**	**Distinction**
LO1 Examine appropriate research methodologies and approaches as part of the research process		**LO1 & 2** **D1** Critically evaluate research methodologies and processes in application to a computing research project to justify chosen research methods and analysis.
P1 Produce a research proposal that clearly defines a research question or hypothesis supported by a literature review. **P2** Examine appropriate research methods and approaches to primary and secondary research.	**M1** Evaluate different research approaches and methodology and make justifications for the choice of methods selected based on philosophical/theoretical frameworks.	
LO2 Conduct and analyse research relevant for a computing research project		
P3 Conduct primary and secondary research using appropriate methods for a computing research project that consider costs, access and ethical issues. **P4** Apply appropriate analytical tools, analyse research findings and data.	**M2** Discuss merits, limitations and pitfalls of approaches to data collection and analysis.	
LO3 Communicate the outcomes of a research project to identified stakeholders		**D2** Communicate critical analysis of the outcom and make valid, justifie recommendations.
P5 Communicate research outcomes in an appropriate manner for the intended audience.	**M3** Coherently and logically communicate outcomes to the intended audience demonstrating how outcomes meet set research objectives.	

Table of Contents

1. Introduction

1.1. Title

How parental control impact their well-being?

1.2. Executive summary

This paper reviews existing knowledge on how parental control impact their well-being, in order to understand what the parent should do when children use digital technology. Children's engagement with digital technology is increasing in all parts of the world together with concerns about whether this is healthy or harmful (Kardefelt-Winther 2017).

1.3. Introduction

Children in the 21st century are avid users of technology - more so than generations past. The question is how much time children spend using digital technology? and how the parent can control them on the smart way?(Kardefelt-Winther 2017, Gottschalk 2019). Children spend many hours on a daily basis with the media, and the media have had tremendous influence on children. The influence is both healthy and unhealthy for their development. Reasons for the low use center on parents' positive perception of children as responsible digital media users, perceived complexity and difficulty in the use of parental controls, perception that management of children's digital media use is not as important as the management of their day-to-day family life, and parent's belief of the existence of better alternatives to parental controls. Parental controls should put into consideration peculiarities of parents in less technological developed countries in designing parental controls which should be less complex and easily affordable (Kur, Kolo et al.).

1.4. Aim

The current research aims to examine associations between screen time and a diverse array of measures of psychological well-being (including emotional stability, relationships with caregivers, self-control, diagnoses of mood disorders, and treatment of mental health issues) among a large population-based survey of the caregivers of children and adolescents ages 5 to 17 collected in 2016 in the U.S (Twenge and Campbell 2018). So, this paper what is the question I want to answer is:

- How the time children spend using digital technology impacts their well-being across three dimensions; mental/psychological, social and physical (Kardefelt-Winther 2017).
- How the parent help young children build and refine their knowledge and skills, self-control screen time(National Academies of Sciences and Medicine 2016).
- How the parent can control them on the smart way?

The reason I choose this project is to understand positive or negative attitudes about digital technology management or control by children, teenager and adults. In order to give yourself the concept of how long to use digital technology is heath or harm for well-being. One thing, I see this topic important is “the teenager is future in the world”.

2. Literature Review

2.1. Impact of time spent using digital technology on children’s mental well-being

Several cross-sectional studies have found an active teenager between internet and cell phone use and self-reported feelings of depression (Kim, Lau et al. 2010). For kids with medium- or high-quality friendships, there was no teenager between time spent just surfing the web and self-reported feelings of depression. However, if the children

with poor friendships spent their time socializing with others online, this leads to reduction in feelings of self-reported depression, leading the authors to conclude that what did about. Networking is crucial and should be considered extra time that they spend online. For example, (Ferguson 2017) in a study of 6000 children aged 12-18, found a small positive association between device use and symptoms of depression and delinquency.

Taken together, this review shows that the time spent on digital technology can have both positive and negative impact on child well-being, depending on the activity and the amount of time spent. No use and heavy use tend to be associated with negative effects, while moderate use seems to have positive effects. However, these effects - whether positive or negative – are often weak and contribute only a small part to explaining overall child mental well-being (Kardefelt-Winther 2017).

2.2. Impact of time spent using digital technology on children's social relationships

A cross-sectional study of 1300 teenager aged 12-18 years old found that while the time spent with digital technology reduced teen interaction time teenager with their parents, it did not actually do that reduced the quality of the parent-child relationship (Lee 2009). Although time spent using a computer for learning involves spending less time with friends, more participation in online communication seemed to strengthen friendships. The positive relationship between online communication and the quality of friendship or social capital has been found in different cross-sectional studies both of children, teenagers and young adults (Peter, Valkenburg et al. 2005, Valkenburg and Peter 2007) . For example, Peter et al. (2005) found that extroverted individuals tended to reveal themselves and communicate online more often than others, which improved their online friendships. In other words, there is a good base to believe that it is easier to talk about personal or sensitive topics online, which would account to some of teenager actively observed between online communication and other social relationships. Similar findings come from a qualitative study (Davis 2012). In addition, Valkenburg and Peter 2007 in a cross-

sectional study of Dutch young person found that online communication was positively correlated with time spent with friends and that it improved the quality of existing friendships, leading to greater well-being.

2.3. How does the time children spend using digital technology impact their physical activity?

A large cross-national study base on survey data from than 200,000 teenagers aged 11-15 shows that the relationship between time spent using digital technology and free time physically activity appears to be which also varies depending on age, gender and nationality (Melkevik, Torsheim et al. 2010). In general, the research shows that spending two hours or more per day on screen activities resulted on average in half an hour less per week of recreational-type physical activity. Again, the type of screen-based activity teen participates in plays an important role in the outcome; Frequent computer use was associated with an increase in physical activity, while playing games and watching television was associated with a decrease. However, these models were not stable in all countries. For example, in Eastern and Southern Europe playing games, watching television and using computer in general have been associated with increases physical activity during leisure time. (Kardefelt-Winther 2017) concludes that physical inactivity is unlikely to be a direct consequence of teenager spending too much time on screen activities, which suggests that teens are already-inactive teenager take more time in front of screens. This conclusion is supported by findings from a separate vertical study aged 11-13, which demonstrating that increased use in computer use or play video games was not directly related to physical activity during leisure time, and indicating that screen-based activity and physical activity should be addressed separately in health promotion activities (Gebremariam, Bergh et al. 2013). We recommend that factors other than computer use or playing games might better determine whether child spend more or less time on physical activity. Moreover, the association between device time and obesity found in some studies may be due to diet behaviors rather than a lack of physical activity.

2.4. Importance of parental control

Children of the twenty-first century use the Internet not only for entertainment, such as social activities, but also to support them in their learning (Collins & Halverson, 2009). The Internet is not only accessible from a personal computer but also from most mobile devices including smartphones.

Many activities may contain forms of communication available for free on the Internet but could be considered harmful. Children could be easily exposed to such potentially harmful content in everyday online activities. For this reason, there is a need for a degree of control – parental control - over the online activities of children (Marais 2012).

The Internet as a technology provides a barrier that schools do not available. Children are able to perform activities and ask questions that are often present in classrooms, due to their anonymity. They are accessing websites and social networking sites and platforms include chat rooms, in some cases anonymously, via the Internet. It is known that children are taking advantage of the Internet to experiment with anonymous identity experiments (Gross, 2004).

However, Marais 2012 suggested the children in connected societies spend many hours each day on Internet-enabled mobile devices. Thus, learning development, using mobile Internet technology, can be considered as one of the most important parts of such a child's life cycle participating in a connected society. It helps a child find their identity and build character. However, children are unaware of the risks that anonymous learning, through anonymous identity test, opens them up to. Parents are not familiar with the fact that most users, including adults and children, are at significant risk and see themselves as impossible targets on the Internet (Furnell, 2008). The Internet can be considered as an unrestricted world of information. Parents are often not aware of the psychological dangers that potentially harmful content and exposure to the potentially dangerous individuals could pose to their children while learning over the Internet. Therefore, parents

need to become aware that children are taking advantage of the Internet in their learning process. Using the Internet to learn may have negative consequences for children. Parents need to become aware of the existence of current parental controls and how they can be used. Most parents may not know what parental control stands for or what it entails.

2.5. The mobile parental control solution

As some people would think, only just technical control software used to perform certain tasks on the child's mobile device. A main element in the mobile parental control solution on a mobile device is the use of safety education when using a mobile Internet enable device. However, some of the more traditional parents would question the role of parental supervision and it would be successfully addressed to a mobile parental solution.

In order to provide a context, a higher-level framework has also been described. Existing mobile parental control are included in the solution as they form part of the guidelines(Marais 2012).

The mobile parental control solution derived from this research was presented in the form of an artifact. The artifact was designed based on design science principles (Hevner, March et al. 2004). The artifact took the form of a context providing a role-based framework for mobile parental control and a parent-based framework for mobile parental control.

2.6. Measures associations between screen time

First, "On an average day of the week, how much time do children spend sitting in front of a TV watching TV programs, videos, or playing video games?" Second, "On an average day of the week, how much time do children spend on computers, cell phones, portable video games, and other electronic devices, doing things other than homework?" For both, response selection were encoded to none = 0, less than an

hour = 0.5, an hour = 1, 2 h = 2, 3 h = 3, and 4 or more hours = 5 (Ikeda and Nakamura 2014). For means, see the table below:

	11 to 13	14 to 17	d
TV and video games	1.80 (1.39)	1.89 (1.39)	0.34
Electronic devices	2.00 (1.40)	2.79 (1.53)	1.46
Total screen time	3.80 (2.36)	4.59 (2.50)	1.06

Together, Ikede and Nakamura added the estimated hours spent on TV/video games and on digital media devices to create a measure of total screen time and re-coded the results into 8 categories: None (no screen time), <1 h (0.01 to 0.99), 1 h (1.00 to 1.49), 2 h (1.50 to 2.49), 3 h (2.50 to 3.49), 4 h (3.50 to 4.49), 5 h (4.50 to 5.49), 6 h (5.50 to 6.49) and 7 h or more (6.50 and higher). Among the two older groups, very few reported no screen time at all (n = 46 for 11- to 13-year-olds and n = 24 for 14- to 17-year-olds), so these cells should be interpreted with caution.

3. Primary research

3.1. Questionnaire form

Questionnaire: Give ten questionnaires to two generation consisting of 20 students aged 5 to 17 years and 10 adults – married – instead of their children asking them and they both use the parental controls apps on mobile device.

Part 1: Personal Information

1. **What is your gender?**

□ Male □ Female

2. Which of following age groups do you belong to?

□ 5 to 7 □ 12 to 15

□ 8 to 11 □ above 16

3. Do you bring your phone when you go to school?

□ Yes □ No

4. Do your family accept you bring your phone to school?

□ Yes □ No

5. Which activity do you use usually follow?

□ Social Sport □ Games

□ Healthy □ News

Part 2: Attitudes

6. Do you check usually your phone after wake up?

□ Yes □ No

7. Which activities do you use your phone the most?

□ Text messaging □ Download apps

□ Playing games □ Live video calling

8. How long do you use your phone?

□ Less 1 hours □ 3 hours – 5 hours

□ 5 hours – 8 hours □ More 8 hours

9. Do your family use parental controls to restrict screens?

□ Yes □ No

10. Do your family use parental controls to check which app you played?

□ Yes □ No

3.2. Discuss how does mobile parental control take self-education to children in Internet?

3.2.1. Gain Internet and mobile device usage risk knowledge

It is not only important to gain knowledge of Internet safety, but also of the mobile devices themselves. Some risks exist for mobile devices only. Difference will be illustrated using examples of scenario type:

Mobile device risk list:

- The child may receive messages that may contain inappropriate gestures via SMS, Messenger, Twitter.
- The child may be on the receiving inappropriate pictures/photos and even video footage via YouTube, Facebook, Twitter.
- The child may also be receiving calls from strangers, who want to have inappropriate conversations.
- The child may be engaged “sex messaging” via SMS, Messenger, Twitter or instant messaging client.
- The child may be a victim of cyberbullying via SMS, Messenger, Twitter or instant messaging client.

In contrast, Internet safety risk list:

- The child may be viewing potentially harmful media content on the Internet through a mobile device, accidently or deliberately.
- The child may receive inappropriate social networking, instant messaging messages and/or e-mails.
- The child may unintentionally share personal information with a stranger or social networking platform, instant messaging client, or e-mail.
- The child may be persuaded to meet a person in real life who they have met over the Internet, through social networking platforms, instant messaging clients, or e-mail.
- The child may be participating in “sexting” through social networking platforms, instant messaging clients, or e-mail.
- The child may become a victim of cyber bullying through SMS, Messenger, Twitter or instant messaging client.

The above lists of possible Internet and mobile device risks only cover some of the most prominent risks. Several other risks exist that parents need to be aware of. Parents could become more aware of the risks their children face when using Internet-enabled mobile devices by educating themselves on such topics(Marais 2012). Once parents have become aware of the risks associated with using the Internet and children's mobile devices, it is necessary to identify mitigation methods.

3.2.2. Provide mobile device usage and Internet safety education

Education a child about how to safely use the Internet and mobile device usage can be wrapped up in one extra step. However, due to the exclusivity of some of the elements in each, they have been split into two sub-steps within a parent-based framework for mobile parental control. Nevertheless, sub-steps one and two, of the child step, require the parent, who gained their own knowledge in step one, parental self-education step, to share that knowledge with their child using the method education. With an educational approach, parents should teach their children what to do and not to use the Internet and mobile devices. This can assist children in decision making when using Internet-enabled mobile devices. Another means of assisting a

child in their decision-making, when using an Internet-connected mobile device, is to make children aware of the dangers that can occur(Marais 2012).

A list of possible dangers:

In some cases, a child may have unintentionally watched violent content via an Internet-connected mobile device and is currently having nightmares.

- The child in question may be talking to someone they meet over the Internet, social media platform, instant messaging app or e-mail service they think is a child of their age. them. In the end, it is not the case that this person is a child of their same age, but an adult submitting inappropriate content to them.
- The child may have been persuaded to meet in person in real life, whom they meet over the Internet, through social networking platforms, instant messaging applications or e-mail, for socialization reasons, but instead others ask them to take the wrong action.
- The child may have called a phone number to do an innocent 'hoax, but now is ultimately an abusive response by repeatedly receiving threatening phone calls from someone who they intend to play pranks.

The above list of possible hazards associated with mobile devices with an Internet connection shows only a few examples of possible hazards. Parents should let their children know about such dangers, due to their ability to support them in decision-making when using an Internet-enabled mobile device for entertainment or educational purposes.

4. Analyze the result of the primary research

Research on how mobile parental control impacts children’s well-being has been ongoing for almost two decades, with research conducted between 2005 and 2017 reviewed here.

4.1. Result of primary research

4.2. How does mobile parental control take self-education to children in Internet?

Parents need to consider what is provided by the other adolescent mobile device usage role-players at the given time and implement methods of mobile parental control accordingly.

- Parents must provide their child an education on how to use mobile devices and the Internet safely.
- Parents must let their children know about the possible dangers associated with using an Internet-enabled mobile device.
- Parents must exercise parental supervision, using a traditional and / or non-traditional approach.
- Parents must be knowledgeable about the risk of using the Internet and mobile devices by a minor.
- Parents should become familiar with parental control interventions and points and methods.
- Parents must also provide their children with examples of the dangers they might face and ultimately exercise regular parental supervision if possible. However, first and foremost parents need to make use of mobile phones and educate about Internet safety.
- Parents should consider purchasing a different mobile device for their child if specific manufacturers are missing including parental mobility controls at the device's operating system level, or keeping current device.

5. Conclusion

6. References

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