ASSIGNMENT 1 FRONT SHEET

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Student declaration

I certify that the assignment submission is entirely my own work and I fully understand the consequences of plagiarism. I understand that making a false declaration is a form of malpractice.

	Student's signature	

Grading grid

P1	P2	P3	P4	P5	M1	M2	M3	D1	D2
✓	✓	✓	✓	✓	☹	✓	✓		

☐ **Summative Feedback:**   ☐ **Resubmission Feedback:**

2.1

Grade:	**Assessor Signature:**	**Date:**

Internal Verifier's Comments:

Signature & Date:

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I. Introduction

Modern life, digital technology becomes a standard to reflect the prosperity and strong involvement of mankind. Digital technology not only helps us to connect, eliminate the distance of thousands of kilometers to be able to communicate with each other but also make everything in our lives easier. One and clearest example is smartphones.

After only about a decade, smartphone technology is so successful that businesses, employees, and every age have trouble imagining a day without them. Besides making phone calls, nearly all smartphones today can natively provide directions through GPS, take pictures, play music, play games, etc. No one can deny the benefits of smartphones in our lives. However, everything has two sides and so are smartphones. The negative impact of the phone is undeniable as it can be considered one of the never-ending hot topics for everyone. What the smartphone brings is essential but sometimes that essential pay for the health, time, or even the lives of the users.

Especially for teenagers, at this age, smartphones are used more than ever, and it needs the most among students. Smartphone connected to the internet will help students to find information that can sustain their knowledge in school. Moreover, they use smartphones to entertain, learning, or catch up with the advance of technology. Improper using smartphones such as excessive duration using, wrong position, less lighting room will affect the health, especially muscles and nerves. From that, a state Digital Wellbeing came out as a way to balance life with technologies.

This report is to find out the impact of smartphones on the health of teenagers, more specific is the impact on teenagers' neck. That is why this research is carried out with the main aim of the research is to find out "Using too frequently smartphone in teenagers at the age of 18-28 could lead to serious neck pain" that is true or wrong. The first thing to do in the project is getting information about Digital Wellbeing, knowing exactly what is Digital Wellbeing. Secondly, finding out if there are any prove on the association between usage of smartphone and neck pain in young people (Secondary research). Thirdly, carrying out the survey and interview on specific target. The interview is a face-to-face interview at in University of Greenwich Hanoi and the survey will get data through Google's Form (Primary Searching). Finally, the information gathered from the survey and interview will be analyzed and contrast with the initial hypothesis then giving conclusion.

II. Literature review

II.1. What is research

Research is a considered activity that aims to make an original contribution to knowledge by careful study of a given subject, field, or problem, undertaken to discover facts or principles. (Walliman, 2001, p. 6)

II.2. Research process

The research process can be defined into 4 common views of processes, they are sequential, generalized, circulatory, and evolutionary. Each follows their own rules of flow (Dawson, 2015, p. 22)

II.2.1. Four common views of research process.
Sequential.

The sequential process is a series of activities that are performed one after another, step-by-step. Following Sharp, the steps of sequential includes: (Sharp, J.A. Peters, J. and Howard, K., 2002)

- Identifying a broad area of study.
- Selecting a research topic.
- Deciding on an approach.
- Planning how to perform the research.
- Gathering data and information.
- Analyzing and interpreting these data.
- Presenting the results and findings.

Generalized.

The generalized research process is identical to the sequential process. However, the generalized model recognizes that not all stages are applicable and it may be necessary to perform some steps in different ways, depending on the nature of the research. Thus, the generalized model identifies alternative routes that may be taken at different stages depending on the nature and outcomes of the research. (Dawson, 2015, p. 22)

Circulatory.

The circulatory approach recognizes that any research that we perform is only part of a continuous cycle of discovery and investigation. Cause often research will uncover more questions than it answers, so the research process can begin again by attempting to answer these new-found questions. The circulatory interpretation also permits the research process to be joined at any point and recognizes that the process is never-ending. (Dawson, 2015, p. 23)

Evolutionary.

The evolutionary concept takes the circulatory interpretation one stage further and recognizes that research must evolve and change over time, not necessarily following a defined circulatory pattern or repeating the same forms of analysis and interpretation that were performed before. The outcomes of each evolution impact on later ones to a greater or lesser extent. The figure shown below can be described in precise about the process. (Dawson, 2015, p. 23)

Figure 1: The research process on the views of Evolutionary
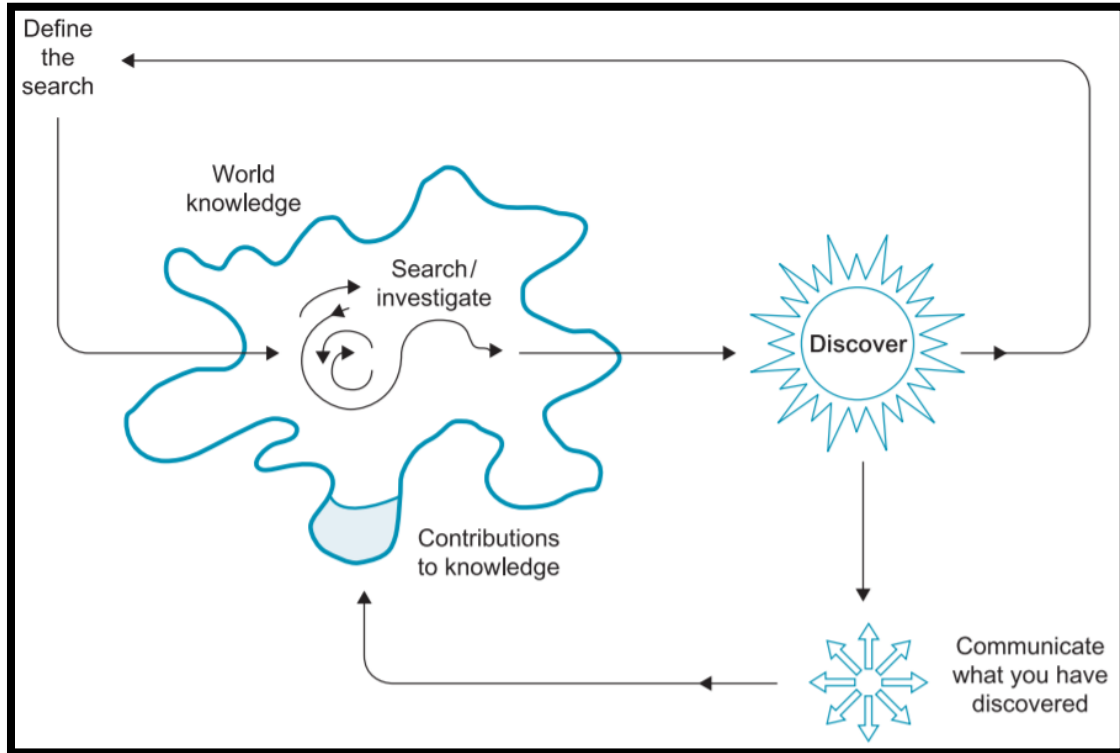
The process includes:

- Define the research problem
- Investigate and evaluate material
- Discover ideas and found the uncover questions
- Communicate what just been discovered
- Contribute to knowledge – enhance the idea
- The cycle continues to keep explore new knowledge

II.2.2. Applying to the project

After conducting 4 different view on the research process, the sequential concept might be the best suitable for this project. The sequential concept will give me a clear view on the work and help me to plan more carefully and keep on track with the project. Though others will bring more options, evolutionary help justify and strengthen the idea during research, on the other hand, generalized offer a process that is flexible during the research, etc. They are all great with their benefits but choosing the sequential concept just like choosing the most certain way to achieve best result.

II.3. Scientific method

The scientific method is the discipline that forms the foundation of modern scientific inquiry. It is therefore important to mention some of the main assumptions made in this method of inquiry and to describe some of its major characteristics.

According to Cohen and Manion (1994), there are five major assumptions underlying the scientific method.

- **Order**: The idea is linked and proven in specific rules
- **External reality**: People know about it; this is a public reality or shared reality without being proven
- **Reliability**: Reasoning is an important method of organizing data and ideas, and is regarded if used correctly, as a dependable tool of research. Human memory also plays a major role in research. To avoid questioning at every single stage, some credence must be given to the power of memory to provide reliable knowledge.
- **Parsimony**: Wisely and carefulness are needed to achieve the most elegant and simple theories.
- **Generality**: The assumption performs in the world at large, there is needed that the majority of people understand or know about it.

II.4. Research approaches

II.4.1. Understanding research approaches

The research approach is a plan and procedure that consists of the steps of broad assumptions to detailed methods of data collection, analysis, and interpretation. It is, therefore, based on the nature of the research problem being addressed. In collecting data, there are 2 types (Joop J. Hox, Hennie R. Boeije, 2007, p. 594)

Qualitative data is the data involving understandings of the complexity, detail, and context as interview transcripts, field notes, or audiovisual material

- It is non-numerical, descriptive, applies to reason, and uses words.
- It aims to get the meaning, feeling, and describe the situation.
- Qualitative data cannot be graphed.
- It is exploratory.
- It investigates the why and how of decision making.

Quantitative data is the data can be described numerically in terms of objects, variables, and their values

- It is numerical, non-descriptive, applies statistics or mathematics, and uses numbers.
- It is an iterative process whereby evidence is evaluated.
- The results are often presented in tables and graphs.
- It is conclusive.
- It investigates what, where, and when of decision making.

In order to collect data, some research methods need to be used. Specifically, each data has its own method (Joop J. Hox, Hennie R. Boeije, 2007, p. 594)

- Quantitative research can be carried out through surveys, experiments, etc. to gather quantitative data
- Qualitative research can be carried out through interviews, focus group, etc. to gather qualitative data

II.4.2. Applying to the project

This study will use both quantitative and qualitative approach to collect data with quantitative and qualitative research.

II.5. Understanding Primary research

The purpose of primary research is to gather information and answer questions that have not been asked before. Basically, the primary data is the original data collected for a specific research goal. The primary research common needs both qualitative and quantitative data to full fill the research method. (Joop J. Hox, Hennie R. Boeije, 2007, p. 595)

II.5.1. Data collection in primary research

To collect data, social scientists make use of different data collection strategies. In collecting primary data, there are 4 commons ways (Dawson, 2015, p. 29)

- Doing the experiment: the researcher has full control over who participates in the experiment. An experiment requires a strong effort and times but, in the end, the result is paid off. Experiments are usually performed in development and problem-solving project.
- Doing a survey: This is usually undertaken through the use of questionnaires or interviews. As part of a survey, we might have to identify samples, sample sizes, design questionnaires, and define interviews as appropriate. A survey is to collect the quantitative data for the research
- Carrying an interview: Interviews are undertaken in either a structured or unstructured way. Structured interviews involve a series of pre-set questions that need to go through with the interviewee. Unstructured interviews, on the other hand, open-ended questions are allowed the interviewee to give extended answers without constraint. An interview is to collect qualitative data for the research.
- Observation: An observation involves the researcher in watching, recording, and analyzing events of interest. Observation is not limited to the visual sense. Any sense like smell, touch, hearing, can be involved, and these need not be restricted to the range perceptible by the human senses.

II.5.2. The characteristics of primary research
- Accurate and reliable
- Take a long time to carry out
- The cost can be expensive

II.5.3. Applying to the project

In this project, I will choose a face-to-face interview as a method to collect qualitative data and surveys as a method to collect quantitative data for the project.

II.6. Understanding Secondary research

Conducting secondary research is to collect the data for different purposes and can be reused for another research question. The best thing is that most data are available online, in academic databases, the news, published books, journals, etc. The work is in wading through the information that is already available and finding data that coincides with the particular research project. (Joop J. Hox, Hennie R. Boeije, 2007, p. 596)

II.6.1. Data collection in secondary research

Finding secondary data is simpler than primary data because most of the wanted data are already available. However, researchers need to be wise, concentrate on choosing secondary data for the report because it is easy to gather wrong data, or mess up with other data. There are many sources that researchers can start from the internet, articles, libraries, magazines, etc. (Walliman, 2001, p. 232)

II.6.2. The characteristics of secondary research

- The accuracy and reliability are lower than the primary data.
- Data from too many sources can be disordered and mistaken
- Wide range of data
- Faster and lower cost in researching
- The outdated data on the internet are many, it is important that researcher selective

II.6.3. Applying to the project

In this project I will search and gather information for the secondary data on the internet. Books, Articles and Reports will be used.

II.7. Evaluate primary and secondary research

Both primary and secondary research have their advantages and disadvantages. While primary data is need-specific and quality is also up to the mark, but it is expensive and consumes more time. Secondary research, on the other hand, is cheap, and the data collection is easy, but it is also possible that the data may be outdated and does not suit your requirements. Generally speaking, secondary research is where most should begin when opening a new research project. Whether primary research is necessary or not, secondary research is a valuable step in the research process. In this research, I will begin will the secondary research about digital wellbeing and the similarity reports or articles to clear up my hypothesis. After that, primary research will be executed to gather further information for the project.

II.8. Population in research

The population is a collective term used to describe the total quantity of cases of the type which are the subject of the study. So, a population can consist of objects, people, or even events. A sample is a selected number of cases in a population. And a sample is a set of individuals selected from a population and usually is intended to represent the population in a research study. There are two types of sampling procedures: random and nonrandom. Random sampling techniques give the most reliable representation of the whole population, while non-random sampling does not. (Walliman, 2001, p. 232)

II.8.1. Random sampling

- Simple random sampling is used when the population is uniform or has similar characteristics in all cases. For example, an advanced class consists of all qualified students, randomly pick a student, that student can be considered good because he/she is in an advanced class.
- Simple stratified sampling should be used when cases in the population fall into distinctly different categories. For example, a school has 3 floors, the IT team wants to check the internet for the school will have to pick one room per each floor.
- Proportional stratified sampling is used when the cases in a population fall into distinctly different categories
- In cluster sampling, cases in the population form clusters by sharing one or some characteristics but are otherwise as heterogeneous as possible
- Systematic sampling is used when the population is very large and of no known characteristics

II.8.2. Non-random sampling

- Accidental sampling (or convenience sampling) involves using what is immediately available
- Quota sampling is an attempt to balance the sample interviewed by selecting responses from equal numbers of different respondents
- A useful method of getting information from a sample of the population that we think knows most about a subject is a theoretical sampling

II.8.3. Applying to the project

Because the research aims to find out the impact of using too frequently smartphone in teenagers at the age of 18-28 on serious neck pain, so the target population for my project is students studying at the University of Vietnam Hanoi. Especially, those students need to in the age of 18-28 years old, and are obtained by simple random sampling.

III. Secondary research

Life has been changed tremendously, in every aspect of life exists smartphones or digital devices. That is why digital wellbeing has changed too. It is hard to believe that human living a life that does not depend on smartphones or other devices, that the abuse of smartphones and digital technology bring our life to the brink of collapse. We addicted to smartphones, less conversation in life, loss willpower, damage our health, even dreams become more difficult to achieve. And all of that pay for a modern life with digital devices to enhance life, however, it seems to destroy life rather than make it better.

In this secondary research, I will go through the knowledge of digital wellbeing that represented the balance of life with technology devices. After that, I want to find out the impact of using smartphones too frequently on a teenager's neck. I will use the internet as a way to find and collect the information that I need.

III.1. Digital wellbeing

Digital wellbeing is a term used by health professionals, researchers, and device manufacturers to describe the concept that when humans interact with technology, the experience should support mental, or physical health measurably. The term digital wellbeing is not new, it has been formed since digital devices came out and until now, digital wellbeing is still updated to suit modern life. The goal of improving digital wellbeing is to design technology in such a way that it promotes healthy to use and proactively assists the user to maintain a healthy lifestyle. (Rouse, 2019)

When optimizing digital health, multiple health-related components can be taken into consideration. This can include: (Rouse, 2019)

- Limiting screen time in hours or minutes. For example, any smartphones have a function that users can set time to shutdown or turn-off itself.
- Reducing eye strain in frequent device users. Products such as dark panels that cover screens or special lenses that go over glasses to reduce glare have been developed to aid with eye strain. That could also provide a yellow light to protect our eyes at midnight. For example, smartphones have a function that can automatically reduce the power of light or provide a yellow light on the screen to protect users' eyes
- Increasing emphasis on physical activity and nutrition. Many technological devices have been developed to help devices users bring up fitness levels, track heart rate, report daily step count, and monitor diet. For example, there are smartwatch, smart band, etc. support a physical life by counting steps, tracking heart rate
- Supporting healthy sleep patterns, especially for users that bring devices with them to bed. For example, sleep timer mode, monitors sleep on smartphones or wearables devices

Nowadays, digital wellbeing is one of the issues that is discussed dramatically, constantly considered, and evaluated over the years. There are no few examples of digital wellbeing applying to human life. At a glance, the examples above are kind of nothing much, but they are the contributions that make life between people and technology devices harmonious and balanced.

III.2. Collecting secondary data for the project

III.2.1. Smartphones and Neck Pain Syndrome

According to Bader and Santosh (2015), their study aimed at 396 students studying in dental college and medical colleges of Aljouf University, Kingdom of Saudi Arabia. The students were given a self-administered, pre-tested questionnaire which included various mental and physical health symptoms related to mobile phone usage. And the result significantly reveals that Cervical pain was the most commonly reported complaint, which was seen in 71.2% of study respondents, followed by headache

(63.3%), irritability (54.5%), anxiety (50.7%), lack of concentration (47.4%), straining of eyes (36.8%), insomnia (31.3%), memory problems (28.5%), depression (19.69%). Itching and/or erythema of preauricular skin the least commonly seen complaint (16.91%). The findings of the present study demonstrate that excessive use of smartphones poses significant health-related problems, more specifically in the head and neck region. Smartphone users usually experience subjective symptoms, the intensity of which is dependent on the intensity of the use of smartphones.

II.2.2. Duration of smartphone usage and neck pain
Based on Al Munawir and Alwin Widhiyanto (2017), the results of their study as many as 37 respondents (40.7%) are using a Smartphone with a high duration, 53 respondents (58.2%) experienced neck pain in using smartphones. The report used Chi-Square Test, results obtained P-value 0,000 data with significant 0.05 level so it can be concluded H1 accepted if the price of P-value <0.05 which means there is influenced duration of smartphones using to neck pain in the sample population taking the test. In addition to a positive impact, using smartphones can also cause negative impacts in terms of health if the use is not appropriate, among others, can cause dizziness, tired/hot eyes.

II.2.3. Duration of smartphones usage and neck flexion angle that causes neck pain
According to Gwanseob Shin (2014), the head forward flexion angle was measured from 18 participants when they were conducting three common smartphone tasks (text messaging, web browsing, video watching) while sitting and standing in a laboratory setting. It was found that participants-maintained head flexion of 33–45° (50th percentile angle) from vertical when using the smartphone. The head flexion angle was significantly larger ($p < 0.05$) for text messaging than for the other tasks, and significantly larger while sitting than while standing. Study results suggest that text messaging, which is one of the most frequently used app categories of smartphones, could be a main contributing factor to the occurrence of neck pain of heavy smartphone users.

II.2.4. Evaluate the secondary data
Prolonged use of the phone can affect many parts of the body and damage health but the pharmaceutical agency considered to be the most affected is the neck. These articles point out that the majority of participants suffer injuries or neck pain from using the phone too often. One article proved that head flexion can be caused by using smartphones, moreover, head flexion is one of the main reasons that lead to neck pain, or even spine harm.

After reviewing the secondary data, the initial hypothesis that "Using too frequently smartphone in teenagers at the age of 18-28 could lead to serious neck pain" is true up to now. This will be accurate after the primary research.

IV. Primary research
In the primary research, a survey is the method I use to collect quantitative data and an interview to collect qualitative data

IV.1. Survey

Purpose of the survey

- Survey the duration people spend on using smartphones
- Find out if smartphone helpful to daily lives
- Find out if people have neck pain when using the phone or not
- The awareness of people to neck pain.

Target: Students of University of Greenwich Hanoi at the age of 18-28
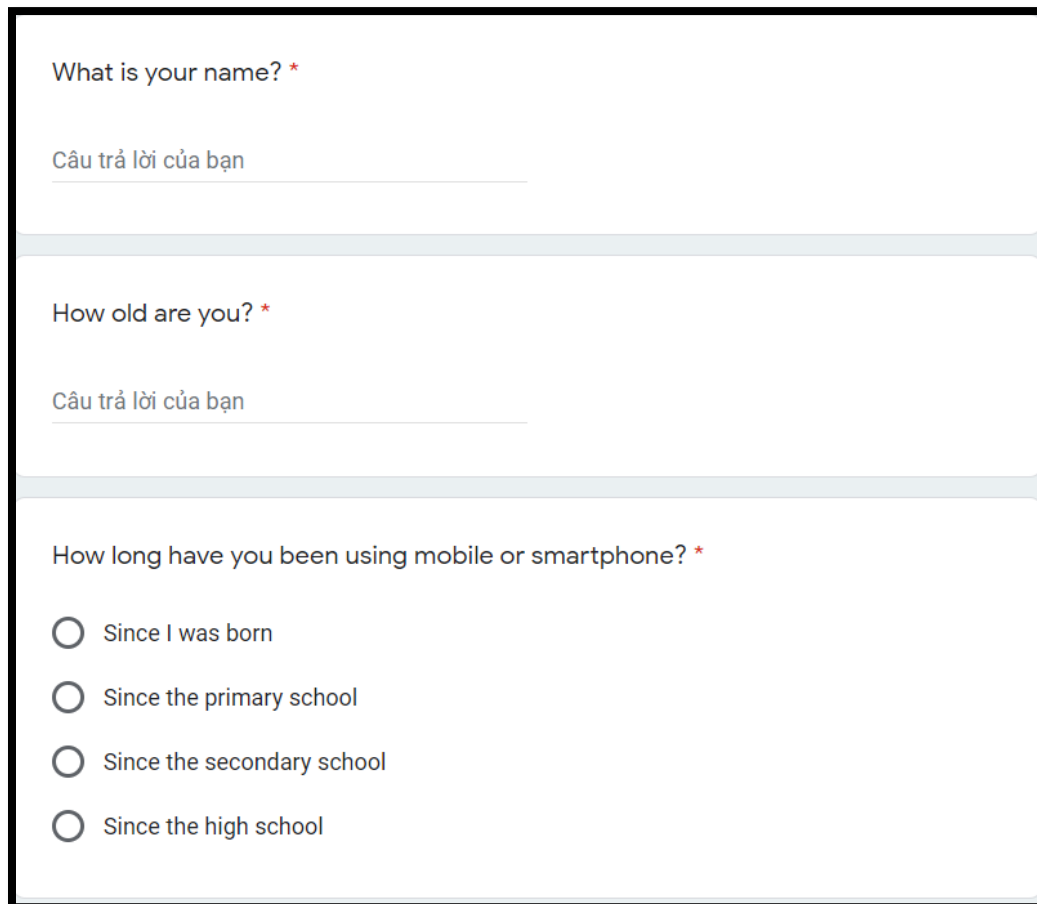
Survey method: Google form

Time: 12 days from July 8 to July 20

Population: 44 students of University of Greenwich Hanoi

Survey questions:

Figure 2: Survey questions

What is the frequency you spend on using smartphone in day? *

○ < 1 hour

○ 1 - 3 hours

○ > 3 hours

○ All day

Does your smartphone being helpful in your day life routines? *

○ Very much

○ Very

○ Normal

○ No, it is not

Have you ever had pain in the neck, upper back, and/or shoulder when using smartphone for a long time? *

○ Yes, I have

○ No, I have not

○ I do not know

How frequent of that problem cause to you?

○ Always

○ Sometimes

○ Seldom

○ Never

Have you noticed that you having a forward head posture cause of using smartphone?
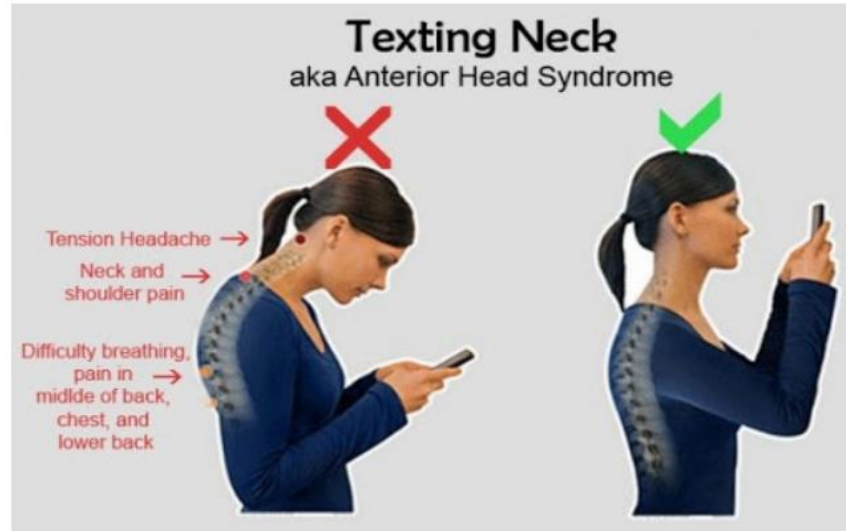
○ Yes

○ No

Does that problem interfere in your life?

○ Yes, I always need a cold patch in my shoulder

○ It happens sometimes but I got used to it.

○ No, it does not

○ Mục khác: _____

Do you realize this will cause your neck pain and be a huge problem in the future? *

○ Yes, I know this is a huge problem

○ I have never think of it

○ No, I do not think this is a huge problem in the future

Do you agree that using smartphones too frequently could lead to serious neck pain? *

○ Strongly agree

○ Agree

○ Neutral

○ Disagree

○ Strongly disagree

Have you done anything yet to protect your neck?

☐ I reduced the time using smartphone

☐ I am trying to fix my head posture

☐ I take a lot of exercises

☐ Mục khác:

Will you spread this news to your friends and your acquaintance and help them to pay serious attention to this problem? *

○ Yes, i will

○ I will try

○ No, none of my business

IV.1.1. Analyzing the survey answers

Figure 3: Answer of question number 2
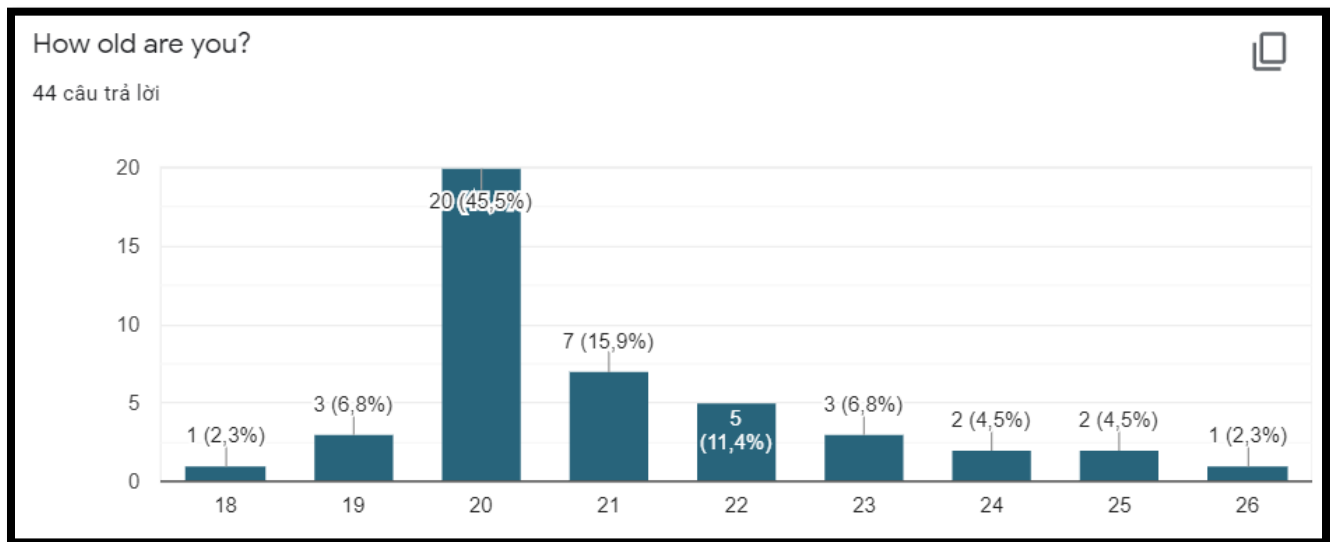
Looking at the details, the age is gradually between 18 to 28. The majority is at 20 years old when taking 45%, some getting higher than others are 19 – 23 years old, and the rest remain few. Overall, this question has achieved greatly when selecting the right target which has been aimed before. From that, the result may possibly achieve the most reasonable and satisfactory results.

Figure 4: Answer of question number 3
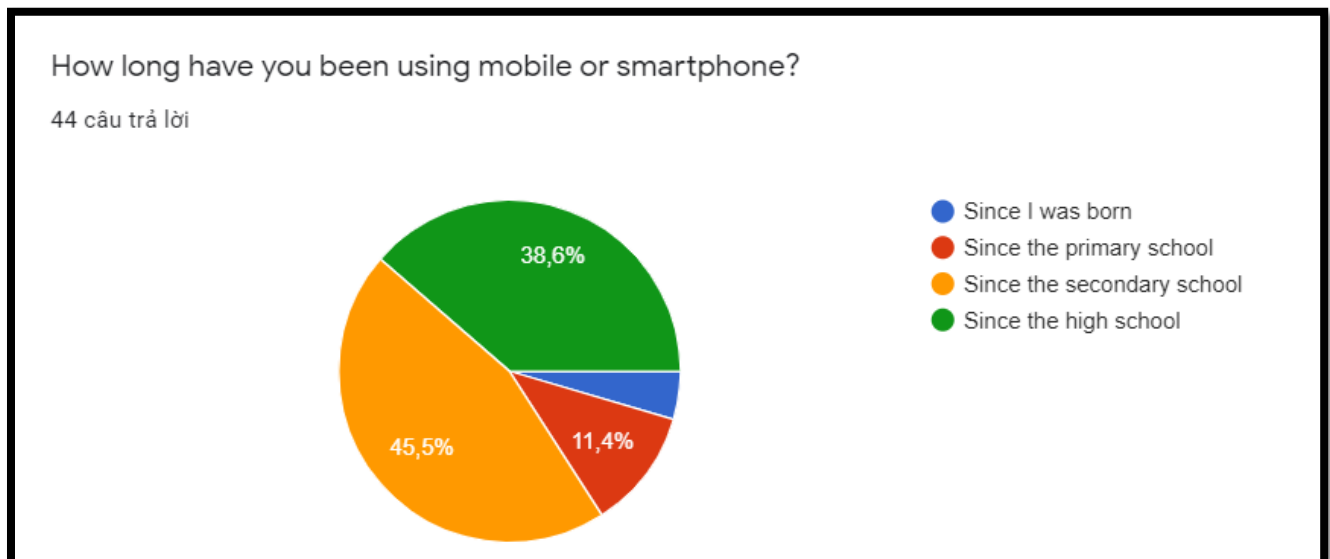
The pie chart shows that most of the people had been using smartphones since secondary school (45%), below is the high school when taking 38.6% of choices. The rest remain 11.4% at primary school, and some

who chosen that have been using smartphones since he/she was born. This suggests that most people use the phone very early, which raises the question of whether the use of such an early smartphone will have any consequences. Will they be able to balance the time between using the phone and life? The following answers will explain all.

Figure 5: Answer of question number 4
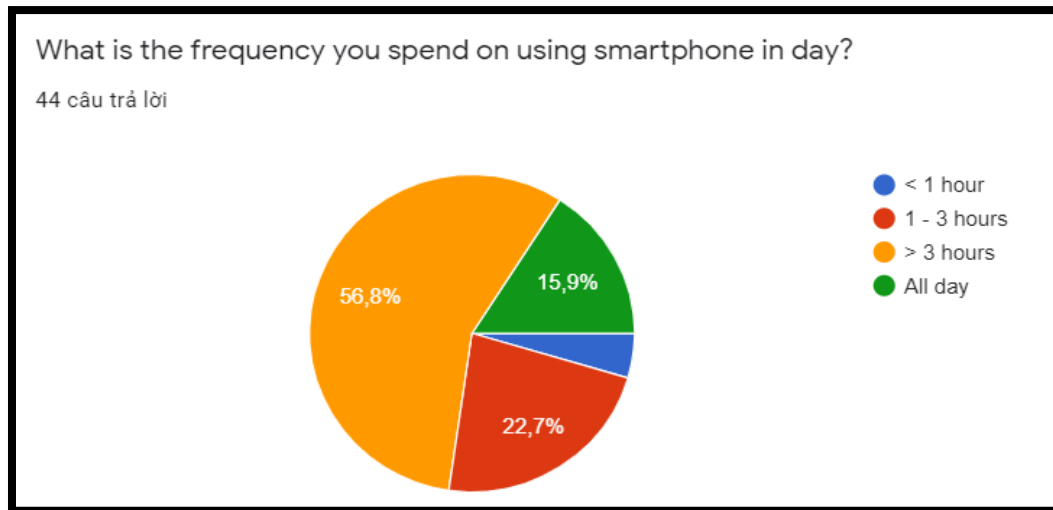
The charts illustrate the duration of using smartphone on participants. the upper 3 hours is the answers which got the most choice (56.8%), below is 1-3 hours setting 22.7%. A few chosen less than 1 hour. However, there are 15.9% of people claimed that they used smartphones for all day. In general, using a phone from 1 to 3 hours, even greater than 3 hours is completely understandable when most of the day's tasks for everyone, especially for college students, the use of smartphones, and electronic devices are essential for learning, relaxation, communication, etc. Otherwise, using smartphones for most of the day is alarming and needs to be considered. This is almost a form of smartphone addiction because no matter how busy one is, only use 5 to 6 hours only. Besides, the use of such a long frequency can lead to eye pain, spinal pain, serious injury to health.

Figure 6: Answer of question number 5
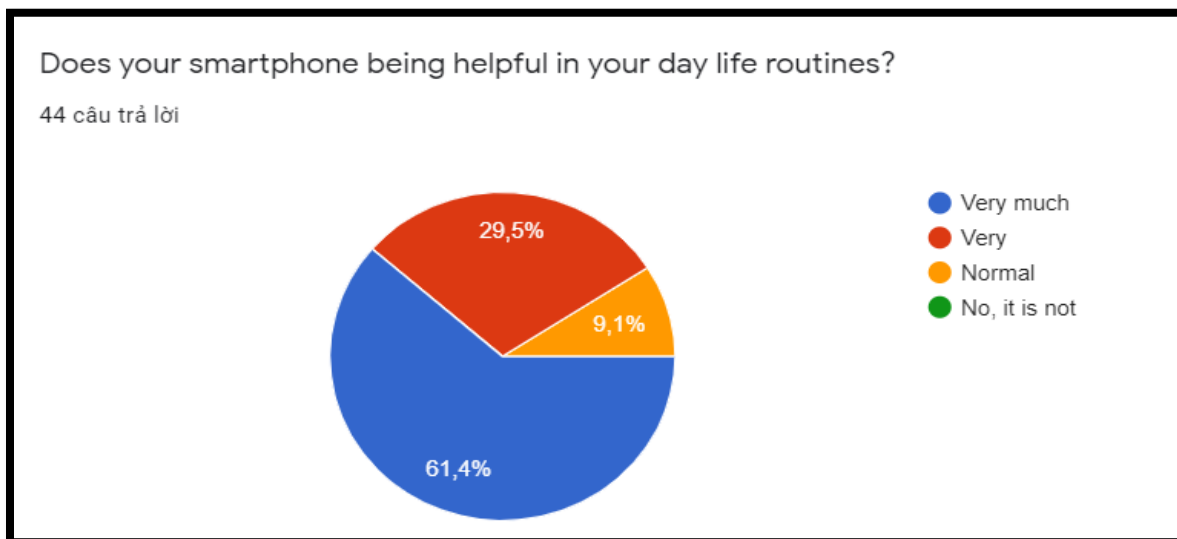
There are 61% of people claimed that smartphones help them very much in their routines, 29% of people agreed with the idea, and only 9% feel it was normal and does not help much. The thing to point out is there are almost of people said that smartphones helpful in life and only a few on the neutral side, for this 9%, they might be the people that use less than 1 hour on the previous question. This question has strengthened that smartphones are really helpful in life.

Figure 7: Answer of question number 6
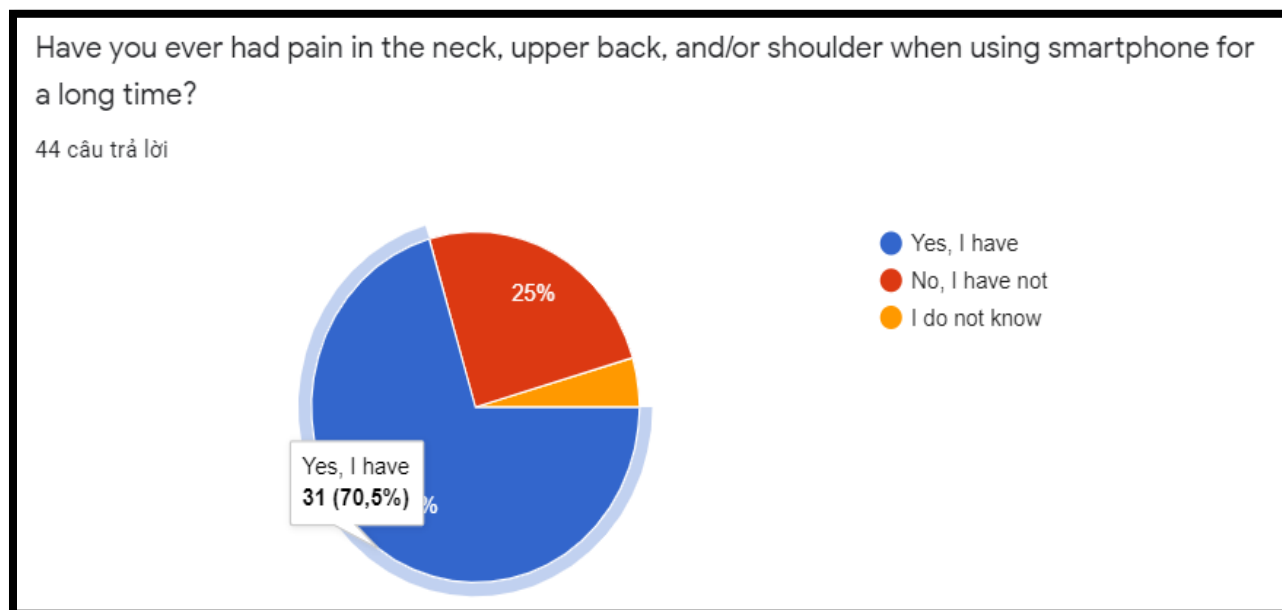
When asking people about their pain in the neck or shoulder, the result is overwhelming when nearly 71% of people realized that they had a neck or shoulder pain and 25%, it means approximately 10 people who do not have these problems. A few did not know or have not noticed yet. These answers have clear us all, it is a fact that there are so many people at such a young age who suffer from neck symptoms that, according to medical science, only when the age of 35 onwards will these symptoms occur. This is a wake-up call because using smartphones for an extended period will easily cause these symptoms.

Another thing worth mentioning is the carelessness about health in 25% of participants. It can be a playful, casual use of smartphones without being fully aware of the harm that they can bring. There are even people who have symptoms of neck pain but do not notice or care because they have so many distractions that smartphones can bring to them.

Figure 8: Answer of question number 7
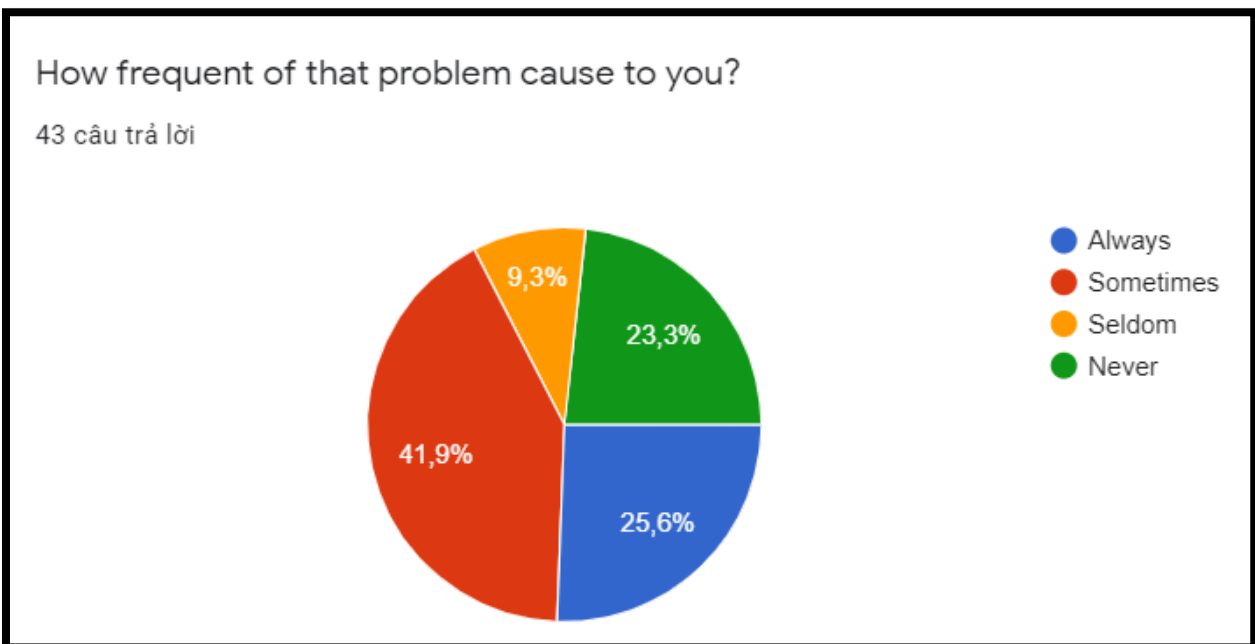
This question gave dimensional answers. There are 25.6% of people who feel that the problem always happens in their lives. 42% also feel that the problem occurs in daily lives but less frequently. 9% claimed that the problem seldom occurs and there are 23% said that the problem never happens in daily life. These answers show a significant frequency of neck pain symptoms for participants when most people who feel neck pain see these symptoms occur frequently or occasionally during the day. This indicates that the symptoms of neck pain can occur frequently and without specific measures to prevent the consequences will be unpredictable.

Figure 9: Answer of question number 8

Have you noticed that you having a forward head posture cause of using smartphone?

43 câu trả lời

- Yes
- No

32,6%

67,4%
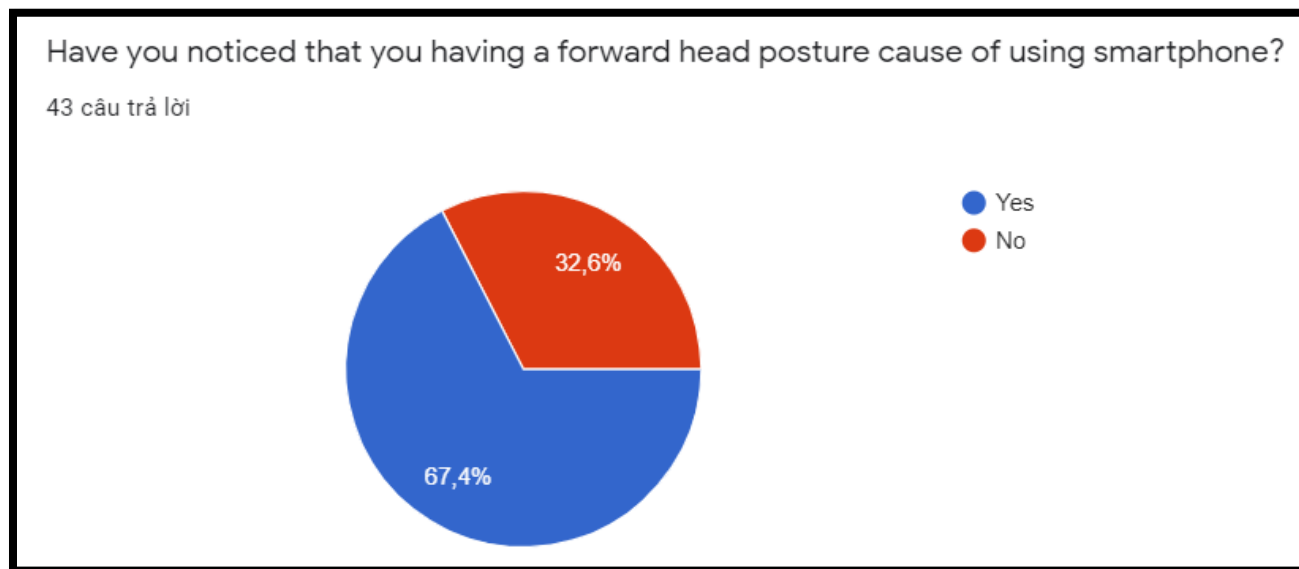
When asking people about the awareness of having a forward head posture, the answer was surprising when most people noticed that they have the head posture when using a smartphone (67%) and the rest do not. The answers stand out one information is that people nearly do not notice their head posture when using smartphones because the change in head posture lightly raises. And if they continue to use smartphones for a long duration without knowing their posture, the damage on the spine will be huge.

Figure 10: Answer of question number 9

Does that problem interfere in your life?

43 câu trả lời

- Yes, I always need a cold patch in my shoulder
- It happens sometimes but I got used to it.
- No, it does not
- This problem always bother me. I have gone to doctor, even got some treatm...
- I took bills and medicines but it seem out did not work at all
- I do not interfere my life

23,3%

51,2%

18,6%
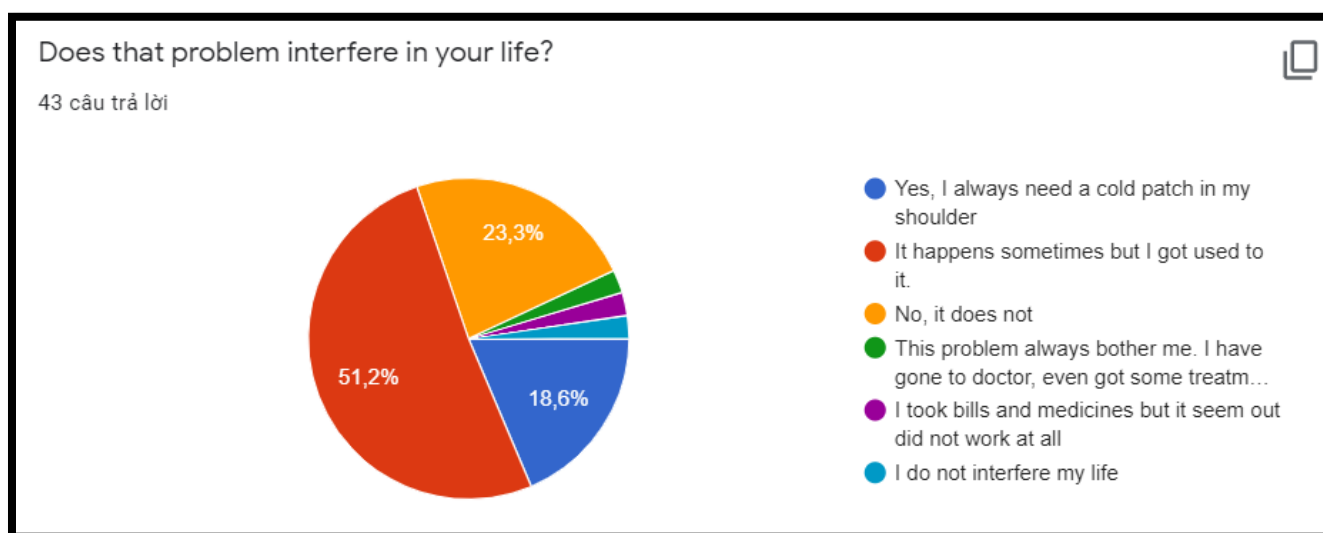
That the neck pain interferes with life when some of the people need a cold patch in the shoulder to reduce the pain, some even took a bill or go to the doctor to get some treatment. But, a lot of people choose a

way to live with the issue without doing nothing. This continues to show indifference, unforeseen risks that neck pain may pose in the future in the majority of participants.

Figure 11: Answer of question number 10
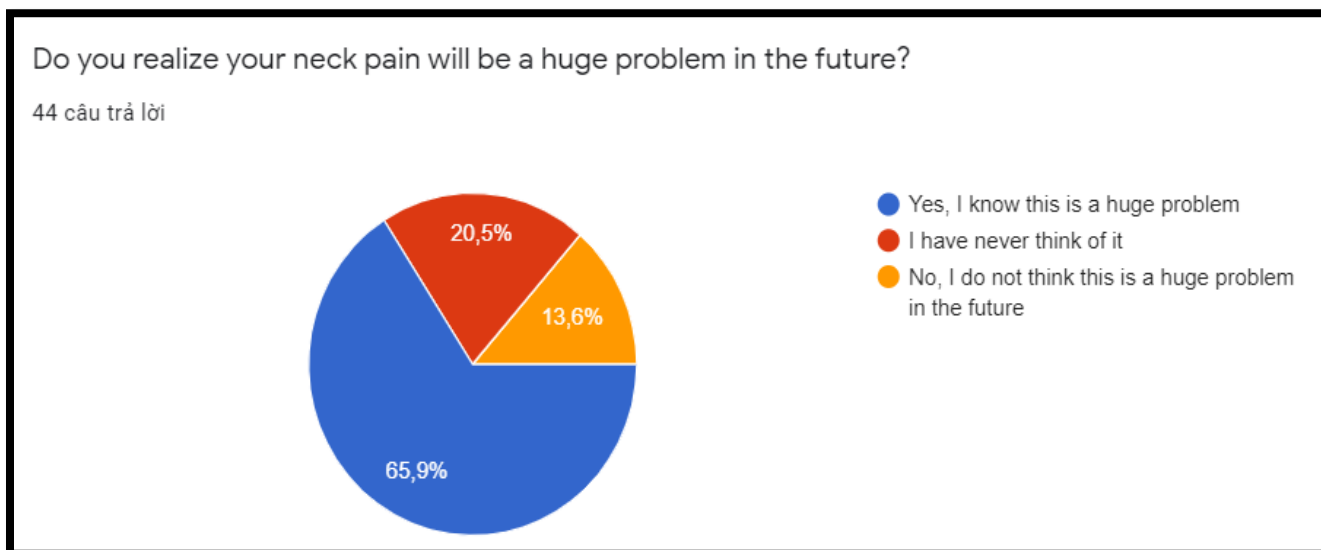
There 66% of people knowing the impact of neck pain in the future but there are 13.6% who do not know about the situation and the rest stay on the bright side when never think about the problem. This answer shows the ignorant among students and teenagers who do not care about anything even their life and what their habit can affect their health. On the other hand, most of people got timely awareness of this serious problem

Figure 12: Answer of question number 11
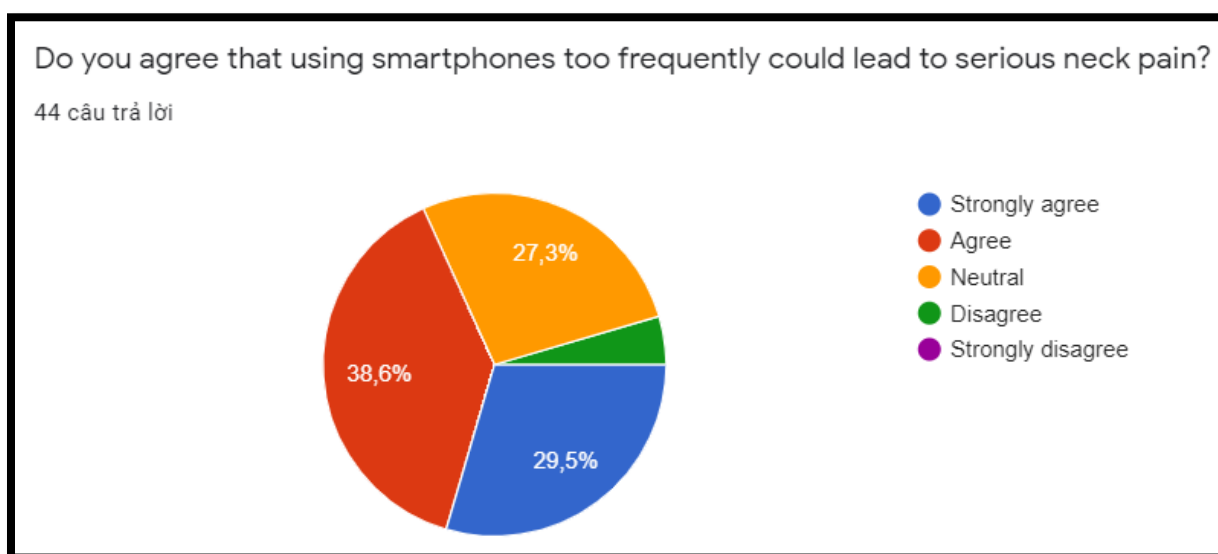
In general, most people agree that using a phone for an extended time with constant frequency will cause neck pain symptoms. About 27% are on the neutral side when there is no conclusive evidence on this. A few do not agree with the idea. It's also understandable that many other factors can cause neck pain, not just the use of smartphones. These are the timely and correct assessments for people to implement solutions to solve this problem

Figure 13: Answer of question number 12
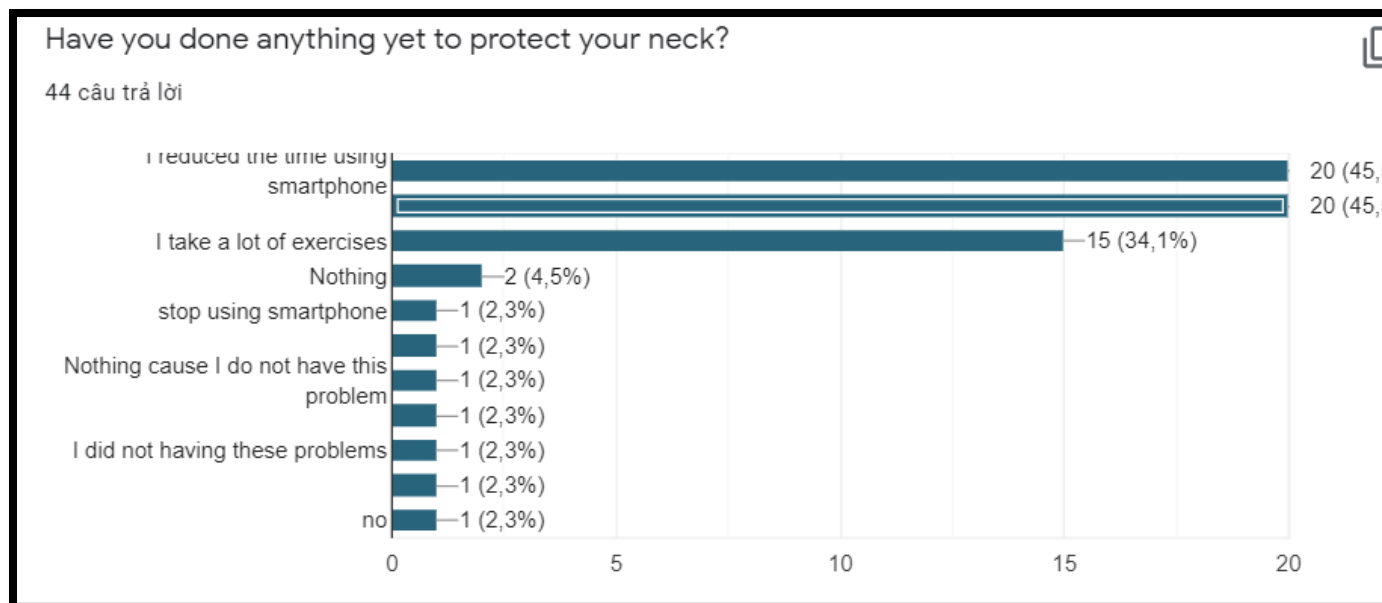
The majority choose to reduce the time using smartphone and fix their head posture by exercises a lot, or get treatment from the doctor. Some even get risk of smartphone to protect his/her neck. Besides, one who do not have or notice about the problem did nothing to their health and keep everything continue. This is a good sign that people are ready or have done what is necessary to protect their health. However, the one who choose to do nothing though realizing the bad impact of using too much smartphone might be ignorant person.

Figure 14: Answer of question number 13
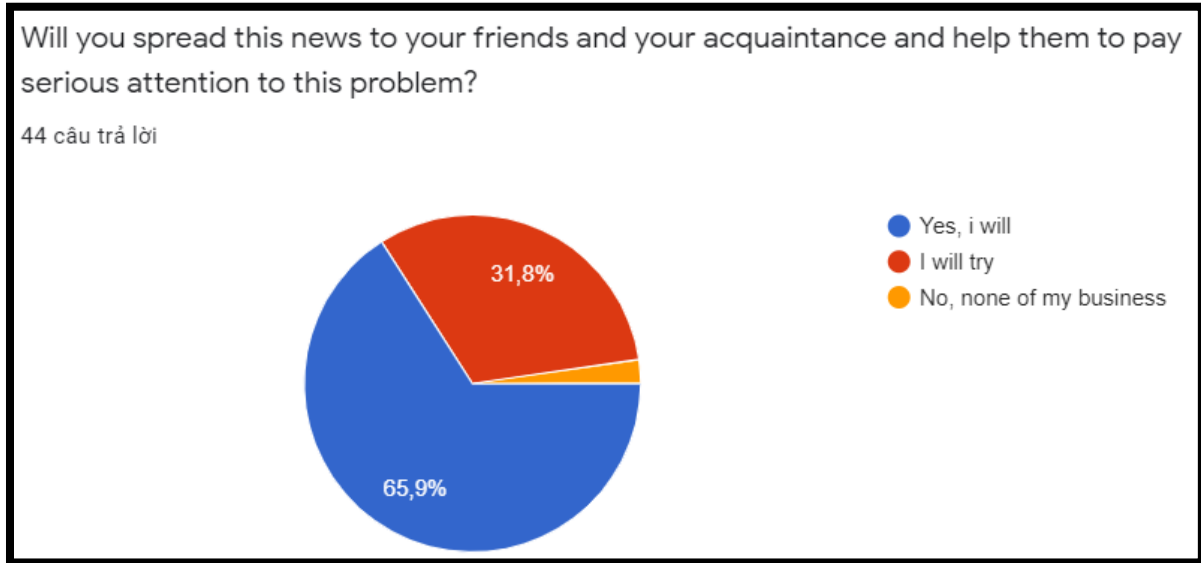
There are nearly 66% of people willingly to share this information to their friends and 31% will send this if they can. Overall, these positive signs are a good premise for everyone to know and join hands to protect the health of themselves and the community.

IV.1.2. Conclusion of the survey's result

Experiencing many questions as well as answers collected from the participants, I can conclude that. Today's young people use the phone regularly as a means to study and entertain. With such a frequent frequency of use, they appear head forward and neck pain symptoms. Most people recognize and detect these symptoms in their daily lives and think that neck pain is uncomfortable, and a few are indifferent, not caring about their health. surname. People who are aware of things have or will do things to minimize the symptoms of neck pain because they are aware that if nothing is done to prevent them, there will be unpredictable consequences in the future. Overall, the survey has produced compelling data on the use of smartphones that cause neck pain in teenagers in University of Greenwich Hanoi

IV.2. Interview

Purpose of the interview

- Find out the awareness of people on neck pain
- Explore other reason which causes neck pain
- Find out if neck pain could lead to spine harm
- Explore the solution for the problem

Interview Method: face-to-face interview

Time: 2 days from July 17 to July 19

Population: 5 students of University of Greenwich Hanoi

Interview questions:

1. Have you seen anyone who having neck pain?
2. Does it interfere their life? How?
3. Do you realized that using too much smartphone led to the problem or even made it worse?
4. Are there other reasons that cause neck pain?
5. Do you realized that neck pain will lead to serious spine harm in the future?
6. Is there any way to solve the problem?
7. Why teenagers still being undone though realizing the bad impact of smartphone?
8. Do you think that teenagers should aware of their health more properly?

IV.2.1. Analyzing the interview answers
Table 1: Interview questions 1 answers

Interview questions	Participants	Answers
1. Have you seen anyone who having neck pain?	Pham Tien Tai – 23 years old	He said that one of his friends has that problem.
	Luu The Manh – 21 years old	He said he did not know anyone that having the problem. He committed that neck pain is the problem only appears among elderly. It rarely on teenagers.
	Pham Thi Thao Ly – 20 years old	She said that her dad and her brother had the problem
	Bui Van Huy – 21 years old	He said that he was having the problem. Some of his friends had too but no one got worse than him.
	Le Thi Trang Nhi – 20 years old	She said that her younger brother had had the problem since the last few years

4 in 5 people said that they had or their friend had neck pain. Only Manh said that he did not know anyone having the problem and he believed that neck pain only appears in the elderly. These answers show that neck pain is a common problem that appears in teenagers nowadays

Table 2: Interview questions 2 answers

Interview questions	Participants	Answers
2. Does it interfere their life? How?	Pham Tien Tai – 23 years old	He said that neck pain really did our life spin around. It is hard to work and study when having a pain in the neck, so frustrated.
	Luu The Manh – 21 years old	He said that neck pain did interfere our life because having a neck pain making us can not do anything precisely.
	Pham Thi Thao Ly – 20 years old	She said that the problem cause the frustrated life to her dad and her brother. She stated her dad and her brother always complained about the pain in their neck.
	Bui Van Huy – 21 years old	He said he wanted to get to the time machine to come back the past when he had been 10 years old then punched himself in the past for lying down to study that make him have a neck pain in present. He said whenever he studying or playing game for just a half of hour, a pain will appear and it really make him pissed off.
	Le Thi Trang Nhi – 20 years old	She said that her younger brother always complained about the pain and it was a barrier stop her younger brother follow his dream to become an artist. She stated whenever her younger brother practiced drawing, it would not long last until the pain appear then itching.

Everyone thinks that neck pain does interfere with the lives of people who suffer from it. From daily tasks such as sitting for too long or pursuing passions, it is nonetheless prevented by neck pain. Even one of the interviewees was bored, complained, and wished he would be able to return to the past to prevent him from lying down to study that makes him have neck pain in the present.

Table 3: Interview questions 3 answers

Interview questions	Participants	Answers
3. Do you realized that using too much smartphone lead to the problem	Pham Tien Tai – 23 years old	He did realize that using too much smartphone for a long time in day could lead to the problem or make it worse
	Luu The Manh – 21 years old	Manh said that smartphone could not lead to neck pain. He stated that only sitting too long in front of the computer or carrying heavy packages lead to neck pain

or even made it worse?	Pham Thi Thao Ly – 20 years old	She said that she had heard about the cause that lead to neck pain and she agreed with that. Besides, she said not only using smartphone lead to neck pain but there are many reasons also lead to the problem.
	Bui Van Huy – 21 years old	He said that the reason that cause him pain was the wrong position when he studied in the past. However, he knew that using too much smartphone also lead to the problem.
	Le Thi Trang Nhi – 20 years old	Nhi surprised about what I told her. She said that it was true because her younger brother playing game on smartphone a lot. There was approximately 5-6 hours that her younger brother using smartphone a day. She said that it was sure to tell that was the reason causing neck pain to her younger brother.

Almost people realized that using too much smartphone could lead to the problem or even make it worse. One did not agree then state that the reasons sitting for too long in front of the computer or carrying heavy packages lead to neck pain. Indeed, others also list that many reasons could lead to neck pain not only just using smartphones.

Table 4: Interview questions 4 answers

Interview questions	Participants	Answers
4. Are there other reasons that cause neck pain?	Pham Tien Tai – 23 years old	He said that there are many reasons lead to neck pain like having a wrong position to study, sleeping in the wrong position or playing games on PC for a long time
	Luu The Manh – 21 years old	He stated that only sitting too long in front of the computer or carrying heavy packages lead to neck pain
	Pham Thi Thao Ly – 20 years old	She listed sitting for too long or sitting in the wrong position could lead to the problem. She even proved that there was someone who had the symptom when they were a child so it was basically from the gene or other disease
	Bui Van Huy – 21 years old	He described some that some holding the head in a forward posture or odd position while working, watching TV, or reading can lead to the problem or that could be pathological background in some people when they were born
	Le Thi Trang Nhi – 20 years old	She told that there are many reasons. Working or studying in an odd position or even having an accident would lead to the problem. She thought that maybe stress could lead to the problem too.

Many reasons lead to neck pain like having an odd position to study, sleeping, playing games on PC for a long time, carrying heavy packages. The other reasons could be the pathological background in some people when they were born, or someone who had an accident in the past could lead to neck pain. All participants had a certain understanding of the causes of neck pain.

Table 5: Interview questions 5 answers

Interview questions	Participants	Answers
5. Do you realized that neck pain will lead to serious spine harm in the future?	Pham Tien Tai – 23 years old	He said that he did not know about that.
	Luu The Manh – 21 years old	He did not know about that
	Pham Thi Thao Ly – 20 years old	She knew about that because she had read about it on the internet
	Bui Van Huy – 21 years old	He did know about the spine harm that neck pain could related to.
	Le Thi Trang Nhi – 20 years old	She did not know about that but she thought it is possible because her younger brother sometimes had a back issue. She worried about it and said that she would tell her parents to find away solving the problem

Almost no one knows that neck pain could lead to serious spine harm in the future. Although there is a definite understanding of the possible causes, it seems that young people still do not take the time to care about problems that may become dangerous in the future.

Table 6: Interview questions 6 answers

Interview questions	Participants	Answers
6. Is there any way to solve the problem?	Pham Tien Tai – 23 years old	He suggested that having a massage and using a cool patch to ease the pain.

	Luu The Manh – 21 years old	He said that anyone who having neck pain should have a massage or go to doctor
	Pham Thi Thao Ly – 20 years old	She said that nothing better than doing exercise to reduce the pain
	Bui Van Huy – 21 years old	He suggested that who having the problem like him should go to see the doctor twice a month and take a lot of exercises.
	Le Thi Trang Nhi – 20 years old	She thought it can be doing exercise and having a massage or fix the posture when doing things.

Everyone suggested that doing exercise, having a massage, going to the doctor to get some treatment to reduce the pain in the neck. These solutions are true and realistic, everyone is able to apply these solutions to handle the problem

Table 7: Interview questions 7 answers

Interview questions	Participants	Answers
7. Why teenagers still being undone though realizing the bad impact of smartphone?	Pham Tien Tai – 23 years old	He said that teenagers keep using smartphone for a period of time because smartphones have so many features that brings the convenience to their life. Smartphones are always attracted to them.
	Luu The Manh – 21 years old	He said smartphone was so essential in modern life. If teenagers totally get rid of smartphone, there would be something missing in life. They choose to keep using smartphone though knowing the bad impact rather than living in a life without modern technology. On the other hand, he said that they are addicted to smartphone.
	Pham Thi Thao Ly – 20 years old	She said that bad impact of smartphone was real and no one can deny about it. On the other hand, smartphone does bring great deals to our life so it is important to find a way to balance it. Teenagers have the youth, the strength and knowledges to define it, some did action to solve the problem and major did not because in the opinion "You only live one" then they want to live hard, live a life that no need to worry about.

	Bui Van Huy – 21 years old	He said that smartphone can do a lot of things and make the life less boring. Even him, though having a neck pain and knowing that using smartphone could make the problem even worse but he can not help using it. He is trying to keep using smartphone and take treatments frequently so that it could reduce the problem.
	Le Thi Trang Nhi – 20 years old	She gave 3 reasons. The first reason, teenagers are addicted to smartphone because smartphone can do everything and always sticks to their pocket. The second reason, teenagers are on the best time in their life, they want to live hard and explore the world the capability they can do, they do not want to slow down their life cause one problem. The last reason, they realized the problem and find a way to deal with it but there are so many things distract them from keep on track with it. At this age, pressure from parents, studies and social are great so it is hard for teenagers to please everyone and done well. Neck problem is just one in many things teenagers have to handle with in life so they need support from friends, family to deal with it.

Although recognizing the causes of neck pain, knowing the possible solutions to solve the problem, there seem to be reasons that even insiders know. It is hard to deny. The main reasons are that smartphones are becoming too necessary for life, no matter how difficult things are, they can be solved. It is becoming an inseparable object in this digital age among teenagers. A more plausible reason is that teenagers are on the best time in their life, they want to live hard and explore the world the capability they can do, they do not want to slow down their life cause one problem. All of these things make neck pain is not new and it has existed in every aspect of life and without a better understanding, the health of young people will be harmed dramatically.

Table 8: Interview questions 8 answers

Interview questions	Participants	Answers
8. Do you think that teenagers should aware of their health more properly?	Pham Tien Tai – 23 years old	He said that they should pay more attention to their health properly because health is really important in the future. Without having a good health, we could not do anything.
	Luu The Manh – 21 years old	He agreed with Tai's idea, without a good health people could not done well
	Pham Thi Thao Ly – 20 years old	She suggested that not only teenagers but also every ages should pay more attention to their healthy life style.
	Bui Van Huy – 21 years old	He said that finding a way to balance the time using smartphone with common activities is important and he was trying and hoping in the future will be a cure that solve completely the problem. In the present, he hoped that everyone should focus on their health properly
	Le Thi Trang Nhi – 20 years old	She thought everyone should aware of their health because health is everything people got to break through challenges

Everyone agrees that teenagers need to pay more attention to their health and think that a solution is needed to balance the time spent using technologies and daily tasks. A healthy lifestyle is needed to start a strong foundation for the future and if teenagers keep being undone then their life would be ruined by themselves.

V.2.2. Conclusion of the interview result

In all 5 of the interviewed people, all 5 knew or had a relative with neck pain. They all have certain knowledge about the harmful effects of the above problem and all have positive solutions to solve this neck pain. They are aware that excessive use of a smartphone will exacerbate the symptoms of neck pain and, if not available, necessary solutions can be extremely dangerous. That's all, but when it comes to the solution, it is still laziness in teenagers and not really concerned about their health.

V. Accurate the initial hypothesis

After conducting the primary research and secondary research, the project has gathered a lot of useful information and can come to a conclusion that using too frequently smartphones in teenagers at the age of 18-28 could lead to serious neck pain.

VI. Recommendation for improving the research

VI.1. Limitation

The limitation of this research is the scope of the survey as well as the number of participants. The number of participants is small when just 44 students taking the survey, and only 5 students are interviewed. This is a limited point because when the number of participants is so small, I still cannot have an accurate and practical data, 44 survey participants and 5 interview participants, maybe just overlapping ideas and still haven't got a clear match. The range is also too small when I just focus on the University of Greenwich Hanoi, this range can be further extended when conducted on all facilities of the University of Greenwich Vietnam

Another limitation is that the data collection is concentrated among young people, the report will become more multidimensional if I collect the data above but at different ages to have the most multi-dimensional view of events. For example, I could interview teachers or parents of teenagers who use a lot of smartphones and have neck pain to get their view on the situation.

VI.2. Recommendations

- The scope of the research should extend to every facility of the University of Greenwich Vietnam.
- The population should larger up to 100-200 people to get the practical data to analyze
- The interviewee should up to 20-30 people
- The secondary research should find more similar researches to get a better contrast on the primary research.

VII. Suggestion of the research's results to students at the University of Greenwich campus Hanoi

This research can be used by teachers at the University of Greenwich Hanoi to monitor students with neck pain symptoms to help and support those students. Also spreads to those students the dangers of using their phones too much. From there it is possible to come up with solutions between the teacher and the student so that they can minimize student use time of smartphones while in the classroom to help students focus more in the lectures, also protect student's health.

This research can be used by students of the University of Greenwich Hanoi as well to know about the harmful effects of excessive use of smartphones so that timely solutions can be used to prevent and alleviate the common neck pain in teenagers. These students can also communicate with their peers and especially those with neck pain caused by using smartphones to help them protect their healthy life

VIII. Research Proposal Form

Student Name: Nguyễn Phi Hùng   Student Number: GCH18211

Tutor: Trương Công Đoàn   Date: 2/6/2020 – 15/8/2020

Unit 13

Propose title: Using smartphone too much could lead to serious health problems

Section One: Title, objective, responsibilities
Title or working title of research project (in the form of a question, objective or hypothesis):   Teenagers at the age of 18-28 using smartphones too frequently could lead to serious neck pain.   **Research project objectives** (e.g. what is the question you want to answer? What do you want to learn how to do? What do you want to find out?):   [Example of the questions can be seen in Page 4 of the first slide]   • Finding out the effect of using too much smartphone to the neck of teenager   • Finding out that if could be spine harm to those teenagers.   • Will neck pain interfere in the future?   • If there might be a way to solve this problem?
Section Two: Reasons for choosing this research project
Reasons for choosing the project (e.g. links to other subjects you are studying, personal interest, future plans, knowledge/skills you want to improve, why the topic is important):   • I am having a neck pain   • I want to figure out how serious the problem is   • I want to find out that if it true that using smartphone could lead to neck pain   • If there any chance to fix the problem   • I think this problem could leave the huge problem in our life in the future
Section Three: Literature sources searched
Use of key literature sources to support your research question, objective or hypothesis:

Alwin Widhiyanto, Al Munawir and Hadi Prayitno. (2017). *The Effect of Duration of Smartphone Usage on Neck Pain.* Dama International Journal of Researchers. Retrieved July 20, 2020

Bader K AlZarea and Santosh R Patil. (2015). *Mobile Phone Head and Neck Pain Syndrome: Proposal of a New Entity.* College of Dentistry, AlJouf University, Aljouf. Retrieved July 20, 2020

Dawson, C. W. (2015). *Projects in Computing and Information Systems, A Student's Guide, Third Edition* (Third ed.). United Kingdom: Pearson Education Limited. Retrieved July 20, 2020

Joop J. Hox, Hennie R. Boeije. (2007). *Data Collection, Primary vs. Secondary.* Utrecht University, The Netherlands. Retrieved July 20, 2020

Lee S, Kang H and Shin G. (2014). *Head flexion angle while using a smartphone.* Retrieved July 20, 2020

Rouse, M. (2019, February). *Digital Wellbeing*. Retrieved from whatis.techtarget: https://whatis.techtarget.com/definition/digital-wellbeing Retrieved July 20, 2020

Walliman, N. (2001). *your research project: a step-by-step guide for the first-time researcher.* SAGE Publications. Retrieved July 20, 2020

Sharp, J.A. Peters, J. and Howard, K. (2002) (*The management of a student research project* 3rd Edition), Gower, Aldershot, UK. Retrieved July 20, 2020

Cohen, L. and Manion, L. (1994) *Research Methods in Education*. London: Routledge. Retrieved July 20, 2020

Section Four: Activities and timescales

Activities to be carried out during the research project (e.g. research,

development, analysis of ideas, writing, data collection, numerical analysis,

tutor meetings, production of final outcome, evaluation, writing the report) and

likely durations:

Milestone one:

Target Date(set by tutor)

Milestone two:

Target Date(set by tutor)

1. Collect materials relating to research's question and objectives

2. Complete research proposal

3. **Milestone 1[9-6]**: Get feedback from the Tutor about the research proposal

4. Produce project plan

5. Writing literature review and represent the findings in term of hypothesizes

6. Check project progress: research proposal, plan, literature review

7. Preparation for primary research(to confirm the findings in literature review or clarify the questions might arise after the literature review)

8. **Milestone 2[25-6]**: Get feedback from the Tutor about the plan of primary research.

9. **Milestone 3[27-6]**: Get feedback from the Tutor about the result of literature review

10. Conducting the primary research

11. **Milestone 4[16-7]**: Represent the findings in primary research and get feedback from Tutor

12. Writing assignment 1

13. **Milestone 5[25-7]:** Submit assignment 1- Final

14. Writing Assignment 2

15. **Milestone 6[12-8]:** Presentation- put everything together.

16. **Milestone 7[15-8]:** Submit assignment 2- Final

Section Five: Research approach and methodologies

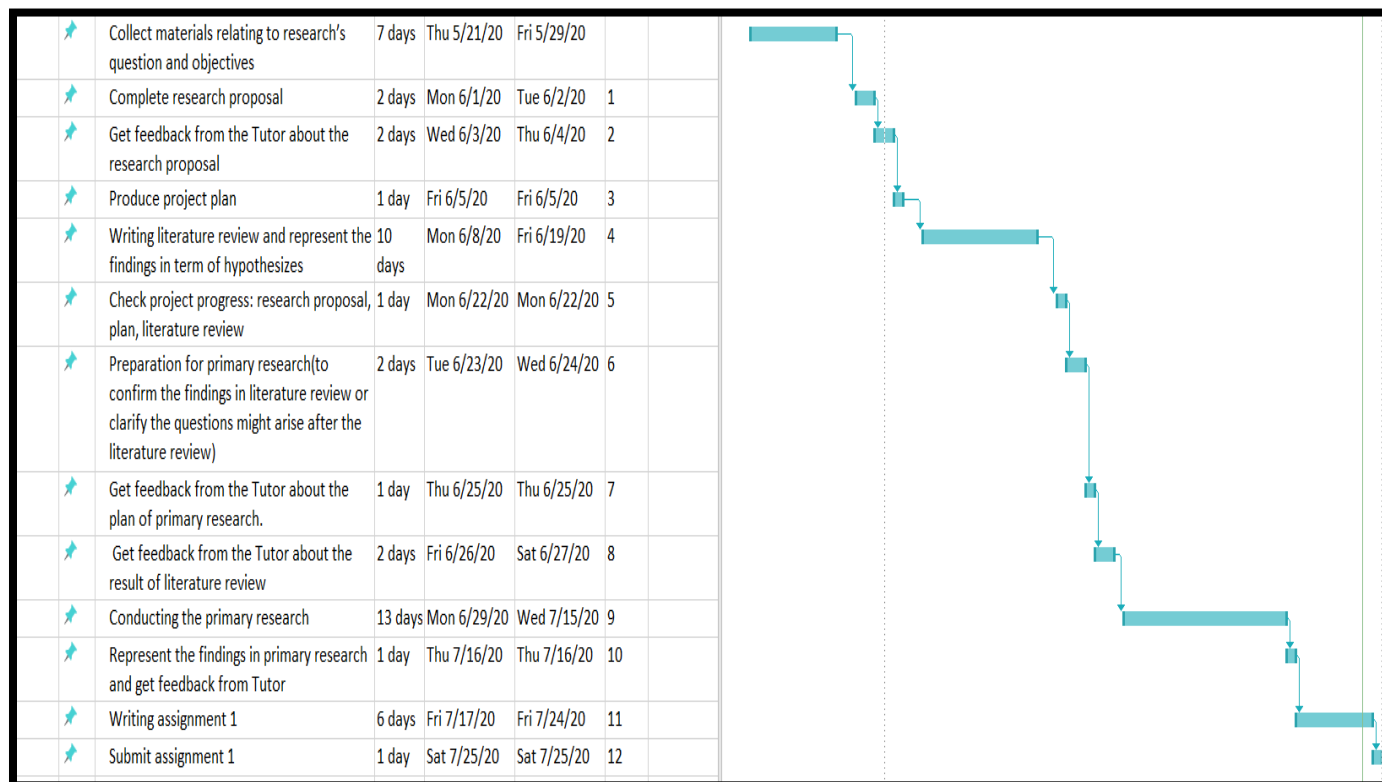Type of research approach and methodologies you are likely to use, and reasons for your choice:

- Research process: sequential

- Research classes: quantitative and qualitative

- Research methods: interview, survey

What your areas of research will cover:

This research will be conducted in Univesity of Greenwich Vietnam and on the google's form and through face-to-face interview

Comments and agreement from tutor
Comments (optional):
I confirm that the project is not work which has been or will be submitted for another qualification and is appropriate.
Agreed: .... (Name)
.... (Date) ....
Comments and agreement from project proposal checker (if applicable)
Comments (optional):
Agreed: .... (Name)
.... (Date) ....

IX. Gantt chart

		Task	Duration	Start	Finish	Pred
	📌	Collect materials relating to research's question and objectives	7 days	Thu 5/21/20	Fri 5/29/20	
	📌	Complete research proposal	2 days	Mon 6/1/20	Tue 6/2/20	1
	📌	Get feedback from the Tutor about the research proposal	2 days	Wed 6/3/20	Thu 6/4/20	2
	📌	Produce project plan	1 day	Fri 6/5/20	Fri 6/5/20	3
	📌	Writing literature review and represent the findings in term of hypothesizes	10 days	Mon 6/8/20	Fri 6/19/20	4
	📌	Check project progress: research proposal, plan, literature review	1 day	Mon 6/22/20	Mon 6/22/20	5
	📌	Preparation for primary research(to confirm the findings in literature review or clarify the questions might arise after the literature review)	2 days	Tue 6/23/20	Wed 6/24/20	6
	📌	Get feedback from the Tutor about the plan of primary research.	1 day	Thu 6/25/20	Thu 6/25/20	7
	📌	Get feedback from the Tutor about the result of literature review	2 days	Fri 6/26/20	Sat 6/27/20	8
	📌	Conducting the primary research	13 days	Mon 6/29/20	Wed 7/15/20	9
	📌	Represent the findings in primary research and get feedback from Tutor	1 day	Thu 7/16/20	Thu 7/16/20	10
	📌	Writing assignment 1	6 days	Fri 7/17/20	Fri 7/24/20	11
	📌	Submit assignment 1	1 day	Sat 7/25/20	Sat 7/25/20	12

X. Ethical form

Section One: Basic details

Project title: Using smartphone too much could lead to serious health problems
Student name: NGUYEN PHI HUNG

Student number: GCH18211

Program: Computing research project

School: University of Greenwich Vietnam

Intended research start date: June 2, 2020

Intended research end date: July 25, 2020

Section two: Project summary

Please select all research methods that you plan to use as part of your project:

- Interviews ■
- Questionnaires ☐
- Observations ☐
- Use of personal records ☐
- Data analysis ☐
- Action research ☐
- Focus groups ☐
- Other (please specify): Survey

Section Three: Participants

Please answer the following questions, giving full details where necessary

Will your research involve human participants?

Who are the participants? Tick all that apply:

Children aged 12-16: ☐   Young people aged 17-18: ■   Adults: ■

Describe the processes you will use to inform participants about what you are doing:

- Step 1: I came to class and tell my friend and my class mates about the research

- Step 2: I send each of them the link to my google form then ask them to join in the research

- Step 3: After finished sending the google form to collect quantitative data, I arrange time for a fac-to-face interview

- Step 4: I meet random classmate and start interview them

How will you obtain consent from participants? Will this be written? How will it be made clear to participants that they may withdraw consent to participate at any time?

- I ask my classmate to help me on my research then ask their free-time so I can interview them

Studies involving questionnaires:

Will participants be given the option of omitting question they do not wish to answer?

Yes: ■   No: ☐

If No please explain why below and ensure that you cover any ethical issues arising from this:

Studies involving observation

Confirm whether participants will be asked for their informed consent to be observed

Yes: ■   No: ☐

Will you debrief participants at the end of their participation?

Yes: ■   No: ☐

Will participants be given information about the findings of your studys?

Yes: ■   No: ☐

Section Four: Data storage and security

Confirm that all personal data will be stored and processed in compliance with the Data protection Act (1998)

Yes: ■   No: ☐

Who will have access to the data and personal information?

During the research:

Where will the data be stored?

Will mobile devices (such as USB storage and laptops) be used?

Yes: ■   No: ☐

If yes, please provide further details:

After the research:

Where will the data be stored?

How long will the data and records be kept for and in what format?

Will data be kept for use by other researchers?

Yes: ■   No: ☐

If yes, please provide further details:

Section Five: Ethical issues

Are there any particular features of your proposed work which may raise ethical concerns? If so, please outline how you will deal with these:

It is important that you demonstrate your awareness of potential risks that may arise as a result of your research. Please consider/address all issues that may apply. Ethical concerns may include, but are not limited to the following:

- Informed consent

- Potentially vulnerable participants

- Sensitive topics

- Risks to participants and/or researchers

- Confidentiality/anonymity

- Disclosures/limits to confidentiality

- Data storage and security, both during and after the research (including transfer, sharing, encryption, protection)

- Reporting

- Dissemination and use of your findings

Section Six: Declaration

I have read, understood and will abide by Research Ethics Policy:

Yes: ■   No: ☐

I have discussed the ethical issues relating to my research with my Unit Tutor:

Yes: ■   No: ☐

I confirm that to the best of my knowledge:

The above information is correct and that this is a full description of the ethics issues that may arise in

the course of my research

Name: Nguyễn Phi Hùng

Date: 24/7/2020

Please submit your completed form to: ……………………………………………………………………….

Here is the link to my survey result:

https://docs.google.com/spreadsheets/d/1ABPjvj0Fqr19WJFa_8t8FRfb9b2WV1hicGAZzkmGvhs/edit?usp=sharing

XI. Conclusion

This research has achieved greater than I ever imagined. The research has provided the full cover of primary research and secondary research. The aim of the research is achieved and highlight by the accurate hypothesis that Using too frequently smartphone in teenagers at the age of 18-28 could lead to serious neck pain. Overall, the research still gets some limitations and flaws but all of the requirements for the project had been carried out carefully and reached the initial target.

XII. References

Alwin Widhiyanto, Al Munawir and Hadi Prayitno. (2017). *The Effect of Duration of Smartphone Usage on Neck Pain.* Dama International Journal of Researchers. Retrieved July 20, 2020

Bader K AlZarea and Santosh R Patil. (2015). *Mobile Phone Head and Neck Pain Syndrome: Proposal of a New Entity.* College of Dentistry, AlJouf University, Aljouf. Retrieved July 20, 2020

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Cohen, L. and Manion, L. (1994) *Research Methods in Education*. London: Routledge. Retrieved July 20, 2020

Index of comments

2.1   This report has been done well.

This report has been shown appropriate research question, aim, related documents in the research proposal appropriately.

This report has been also provided academic references for the methodology section.

However, justifications for the choice of methods selected based on philosophical/theoretical frameworks are needed to be improved slightly.

This report has been shown clearly provide evidence of carryout primary research

This report discussed the merits, limitations, and pitfalls of approaches to data collection and analysis well

This report has been shown effective using analytical tools to analyze research findings and data

This report confirmed the hypothesis in the literature part with appropriate justification

Finally, effectively suggest the research's results to some audience