Cell-Phone Addiction

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# Abstract

With the increasing use of technology and smart phone use our team explored if the increasing mobile use is contributing to poorer academic performance and a more anxious generation. We answered this by creating a survey that asks key questions into the participants average cell phone use, their academic standing, and how anxious they generally feel. The results were inconclusive with a sample size of 19. For further research, we should consider a larger sample size.

# Introduction

The use of smart phones and technology appear to be increasing with each year. Gone are the days of communicating with each other by landline, postal services, or simply driving or walking over to the house of our best friend or acquaintance for the day. Today, the popular mode of communication is, without a doubt, the internet. There are so many services offered on the internet, it can boggle the mind if one tries to comprehend it all. Anything from telecommunications, e-learning, entertainment, personal blogs, and even grocery and household items are offered in this digital landscape. From the outset, this would seem like an incredible achievement for humankind; an achievement that our ancestors would surely be impressed by. It would be difficult to see any negative aspect to such a monumental achievement. But, something that has been becoming more apparent is that the use of technology, particularly smart phones, are drastically increasing in use. Instead of communicating with each other the “old-fashioned” way, the human aspect of communication is largely taken of conversation and left to words on a screen or an audio message. Further, can skew a person’s reality by only viewing the positive aspects of their friend’s life and failing to realize that the negative aspects of a person’s life are usually not posted. Even further, having a smartphone in ones pocket that is constantly alerting a person of an incoming text message, reply/like on social media, a notification of what is trending, recommendations, or even to remind the person to keep using the app can become very addicting to the point that the same neurotransmitters firing during the use of drug use are the same ones firing with mobile use. [2][4].

Sean Kovacs, Savannah Fondrk and Joshua Main-Smith decided to explore what sort of effects, if any, that continued mobile use has on people. Specifically, we decided to look into whether cell phone use has an effect on academic performance (using GPA as a parameter) and anxiety, and how the two can play a role on each other. The best way to approach this was by creating a survey and including questions regarding their cell phone use, GPA, and anxiety levels in relation to aspects of their phone.

# Method

We created a survey that asked questions pertaining to their cell phone use, their academic performance and anxiety levels. The questions we asked are included in Table 1 below.

Table 1. Survey Questions

|  |  |
| --- | --- |
| **Questions** | **Responses** |
| On average, how much time do you spend in apps/games daily? | 15 minutes  30 minutes  1 hour  1 hour 30 minutes  2 hours  3+ hours |
| What is your GPA? | 2.0-2.5  2.6-3.0  3.1-3.5  3.5+ |
| How anxious do you feel when your phone is about to die (10 being the most anxious)? | 0  1  2  3  4  5  6  7  8  9  10 |
| How often do you feel that you get distracted/ procrastinate and end up on your phone? | Not at all  Somewhat Frequently  Very Frequently |
| How often do you find yourself using your phone without a purpose? | Not at all  Somewhat Frequently  Very Frequently |
| Do you check your phone often because you hear/feel a notification? | Yes  No |
| Do you feel anxious if you have not checked for messages or switched on your mobile phone for some time? | Yes  No |
| I find it difficult to switch off my mobile phone. | Yes  Somewhat  No |
| My academic performance has decreased as a direct result of the time I spend on the mobile phone. | Yes  Somewhat  No |

We based some of the questions from the scale used in Table 1 from A. Bianchi and J. Phillips [1]. Particularly, the questions “Do you feel anxious if you have not checked for messages or switched on your mobile phone for some time?”, “I find it difficult to switch off my mobile phone” and “My academic performance has decreased as a direct result of the time I spend on the mobile phone” were based on the scale from [1]. The other questions were ones that we had decided to include as a group.

First, we wanted to get an idea of how much time each person spends on their phone so that we can compare their phone use with their reported GPA and anxiety levels. We specifically asked how much time they spend in apps/games so that way we could filter out the people who are using their mobile phones for productive purposes (such as answering emails, business-related tasks, university-related tasks, etc.). Once this is established, we asked about their GPA. We decided that this would be the best way in measuring academic performance since it is a universal scale in academia, and it is a simple question that most students would know how to answer even though there may be other parameters to consider when measuring academic performance. To address this, we asked an additional question on whether their academic performance has decreased as a direct result of their phone use (in the case that thy are measuring their academic performance by some other metric than GPA). The other questions pertain to their perceived anxiety levels in relation to their phone.

# Results

The results of our survey questions are located below with Table 2, with a sample of 19 respondents.

Table 2. Survey Responses

|  |  |  |
| --- | --- | --- |
| **Questions** | **Responses** | **Outcome %** |
| On average, how much time do you spend in apps/games daily? | 15 minutes  30 minutes  1 hour  1 hour 30 minutes  2 hours  3+ hours | 10.53  0.00  36.84  10.53  21.05  21.05 |
| What is your GPA? | 2.0-2.5  2.6-3.0  3.1-3.5  3.5+ | 0.00  10.53  36.84  52.63 |
| How anxious do you feel when your phone is about to die (10 being the most anxious)? | 0  1  2  3  4  5  6  7  8  9  10 | 5.26  5.26  15.79  10.53  10.53  15.79  21.05  5.26  5.26  5.26  0.00 |
| How often do you feel that you get distracted/ procrastinate and end up on your phone? | Not at all  Somewhat Frequently  Very Frequently | 26.32  31.58  42.11 |
| How often do you find yourself using your phone without a purpose? | Not at all  Somewhat Frequently  Very Frequently | 21.05  36.84  42.11 |
| Do you check your phone often because you hear/feel a notification? | Yes  No | 89.47  10.53 |
| Do you feel anxious if you have not checked for messages or switched on your mobile phone for some time? | Yes  No | 31.58  68.24 |
| I find it difficult to switch off my mobile phone. | Yes  Somewhat  No | 21.05  21.05  57.89 |
| My academic performance has decreased as a direct result of the time I spend on the mobile phone. | Yes  Somewhat  No | 5.26  36.84  57.89 |

Looking at the results, it appears that most respondents are doing well academically (with almost 90% reporting a GPA 3.1) and the majority reported that their academic performance has not decreased as a result of their phone use (about 58%). When looking at the questions pertaining to anxiety, we see that about 52.63% of respondents reported a 5 or higher on feeling anxious when their phone is about to die (with about 11% reporting an 8 or higher). When asking if the participants if they feel anxious if they haven’t checked their message in a while, 68.24% responded with no. Although, 73.69% of participants reported that they at least somewhat frequently feel distracted with their phones, 78.95% reporting that they at least somewhat frequently use their phone without a purpose, and almost 90% of people check their phone if they expect a notification. About 42.10% of respondents indicated that they at least somewhat have a hard time turning their phone off.

# Discussion

When analyzing the results, it appears that the majority of respondents reported to not feeling anxious or that their phone use has been negatively affecting their academic performance, which is contrast to existing research [3][5]. On the other hand, more than half have reported characteristics that may be linked to addiction, such as feeling distracted with their phones, use their phones without a purpose, and checking their phone when expecting a notification. With such a low sample size, it would be hard to make a definite conclusion. Additionally, when considering the timespan that we had it would probably be wiser to ask more questions in relation to one topic (such as only anxiety or only academic performance).

# References

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