The Relationship of cell phone usage to personality and attention

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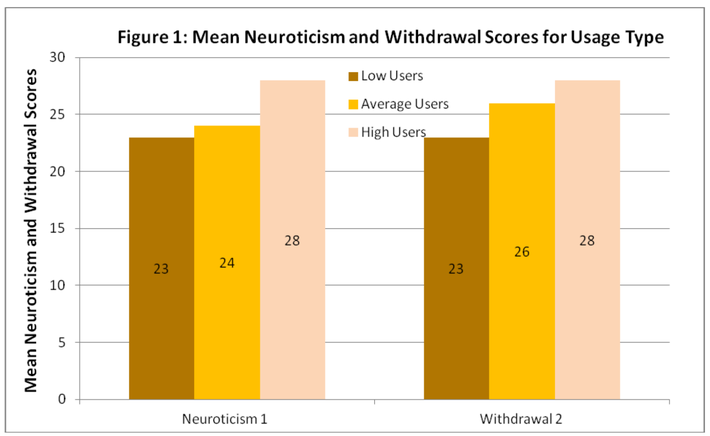
Problem Under Investigation

Cell phones and texting are generally distracting and detrimental to attention (driving, school, work, etc.). Researchers have shown that cellphones affect attention (O'Connor, Whitehill, King, Kernic, Bresnahan & Ebel, 2013; Schwebel, Stavrinos, Byington, Davis, O'Neal, Jong, 2012; Thornton, Faires, Robbins, & Rollins, 2014). It is therefore important to examine all situations in which using cell phones are potentially harmful to one's social or occupational life. According to the Center for Disease Control and Prevention, more than nine people are killed and more than 1,153 people are injured in motor vehicle crashes per day (Centers for Disease Control and Prevention, 2014). Cell phones are not only detrimental to driving but also to other activities that demand attention. Previous research has suggested that students able to text in class receive lower grades than those who do not text in class (Dietz & Henrich, 2014).

Hypotheses

This study explores those who are compulsive texters versus light texters and predicts higher Neuroticism and higher Withdrawal ratings in those who are compulsive. Another hypothesis suggests males text to exchange information and women text to socially connect. This study also predicts cell phones are highly distracting in a classroom setting.



(1) Statistical significance among neuroticism and usage type: F(2,118) = 5.4, MSe = 249.7, p<.05.
(2) Statistical significance among withdrawal and usage type: F(2,118) = 4.6, MSe = 225.3, p<.05

Background Research

Dietz, S., & Henrich, C. (2014). Texting as a distraction to learning in college students. *Computers In Human Behavior*, 36163-167.
Morrill, T. B., Jones, R. M., & Vaterlaus J. (2013). Movivations for text messaging: Gender & age differences among young adults. *North American Journal Of Psychology*.

Cell Phones in the Classroom

Dietz and Henrich (2014) asked 50 students to turn off their phones and take a texting survey followed by a video quiz. In the second group, 50 students took the same survey and quiz, but were asked to record how many texts were sent and received during lecture. Findings included that participants in the texting group scored significantly lower on the lecture quiz than those in the non-texting group.

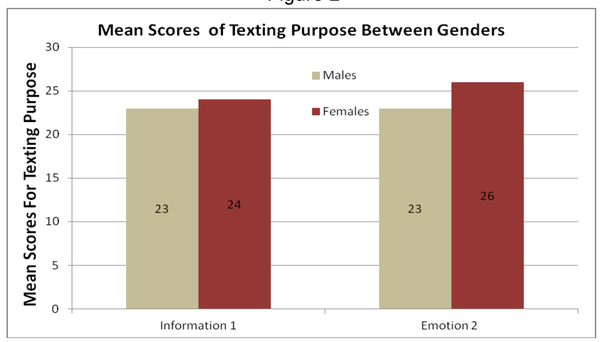
Cell Phones to Society

Morrill, Jones, and Vaterlaus (2013) surveyed college students about their opinions of the age a person should be when receiving their first cell phone, how much cell phone absence affects students, and what is being communicated through the phones. They found that 16 was the relative age both males and females felt people should receive their first phones, generally females felt a stronger attachment to their cell phones than males, and females reported using texting as a way to deepen existing relationships while males use texting to meet others.

Conclusions

-Excessive use of cell phones (social media, etc) is related to increased neuroticism and withdrawal. It is unclear which causes which.
-Females and Males do not differ in the reasons why they use their phones when maintaining social contact.
-College students are not distracted by others' cell phones ringing.
-Those who are older tend to be less withdrawn.
-Older individuals do not use their cell phones as often.

Figure 2



(1) No statistical significance: t(119)=.88, p>.05
(2) No statistical significance: t(119)=.2, p>.05

Method

Participants

- 17 Females and 8 Males; Ages 18 to 34
- 93 Females and 28 Males; Ages 18 to 89

Materials / Procedure

- 1 Iphone 5c
- Index Cards
- Powerpoint Presentation including memory exercise
- Cell phone usage survey including questions from the Big Five Aspect Scale

Set cell phone to ring during a memory exercise in a classroom setting. Participants were asked to complete a 42 question cell phone usage survey. Results were analyzed using SPSS program. All other participants who completed the survey were recruited by classroom visits or social media.

Results

Figure 1: Low and medium usage groups scored significantly lower in neuroticism than high users. F(2,118) = 5.4, MSe = 249.7, p<.05.
Figure 1: Low usage groups scored significantly lower in withdrawal than high usage groups. F(2,118) = 4.6, MSe = 225.3, p<.05.
Figure 2: There was no statistical difference between genders in emotional t(119)=.2, p>.05 or informational t(119)=.88, p>.05 texting need.
Figure 3: Recall scores on a memory test were better when a cell phone rang than when it didn't; t(25)=4.1, p<.05.
-Withdrawal scores were positively correlated with usage amount; r(119)=.29, p<.05.
-Withdrawal scores were negatively correlated with age; r(119)=-.22, p<.05.
-Neuroticism was positively correlated with usage amount; r(119)=.27, p<.05.
-Age was negatively correlated with usage amount; r(119)=-.25, p<.05.

Figure 3: Mean Test Scores With and Without Ring
t(25)=4.1, p<.05