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Effects of Various Texting Engagement Levels on Recall

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Text messaging is a popular mode of communication for current college students, which is a concern due to its association with decreasing academic performance in a classroom environment. While students tend to believe they are simultaneously texting and learning, past studies show that both tasks are being performed insufficiently (e.g., Chun et al., 2011; Koch, Lawo, Fels, & Vorländer, 2011; Marois & Ivanoff, 2005). This study examined the effects of texting engagement level on learning. Embry-Riddle Aeronautical University students (n=74) were shown four, one-minute lecture videos and given a quiz after each video regarding the content, which tested recall accuracy. The participants were randomly assigned to three testing engagement conditions: No texting, Low Engagement texting, and High Engagement texting. By varying the type of responses to be generated and texted, we evaluated whether the higher engagement texting while watching educational videos would decrease participants' recall relative to no texting and lower-engagement texting. Based on previous research, we hypothesized that the higher engagement texting while watching videos would decrease participants' recall relative to no texting and lower-engagement texting. A significant effect was found between the No texting and Engagement texting conditions; however, the difference in recall between the low and high engagement conditions are not significant. Our results suggest that when people text while trying to pay attention to a secondary task in a classroom, learning is hindered. Further, learning is hindered by low as well as high engagement texting. The findings of this study present significant information regarding the negative impact of texting on learning the primary task information. Many individuals multitask using their phones despite existing

evidence for decreased productivity, reaction time and comprehension, and this trend appears as if it will not only continue but increase as mobile technologies become more widely available and capable. Understanding the distraction that texting creates, at any level of engagement, while attempting to perform additional tasks has important implications for educators, employers, and policy makers. Based on our study, future research on implications are warranted to better confirm and understand our findings.