

# **iPhone Fellows Research Report – Matthew Dodd**

## **Feasibility of Research**

The use of an integrated communication device such as the iPhones has the potential to increase interaction and efficiency for students. However, just because it's the new technology and has that potential does not mean that we should absolutely use it for our students. At the same time, if we can offer a superior learning experience through the use of iPhones, supported by positive research, then we should use iPhones and other tools to achieve the goal of a superior learning experience.

Specifically, the iPhone allows the professor to make telephone calls, send emails, text message, and participate in discussion boards on Blackboard to provide more immediate feedback to students. Students tend to naturally self-select technologies that fit their needs and the iPhone includes a large selection of communication methods for the student to interact with professors/instructors.

## **Research Purpose**

The primary purpose of this study is to ascertain what influence (if any) identity status (maturity and emotional development) will have on how college freshmen use the iPhone/iPod Touch to interact with classmates, faculty, friends, and parents. The following research questions and hypotheses will be researched:

### Research Questions

1. How often do college freshmen use the different types of technology-mediated communication on their iPhone/iPod to interact with their classmates, faculty, friends, and parents?
2. What types of technology-mediated communication on their iPhone/iPod Touch do college students utilize to interact with their classmates, faculty, friends, and parents?
3. Does identity status (as categorized by Marcia's research) predict how college freshmen use their iPhone/iPod to interact with their classmates, faculty, friends, and parents?

### Hypotheses

1. Participants will use different forms of technology-mediated communication on their iPhone/iPod more or less often depending on the whether the other person is a classmate, faculty, friend, or parent?
2. Participants will use different forms of technology-mediated communication on their iPhone/iPod to interact in different relationships.
3. The identity status of college freshmen will affect the frequency and use of different forms of technology-mediated communication on their iPhone/iPod.

This research will give ACU a clearer picture of the technological and interactional needs of students. With this clearer picture, ACU can cater to the needs of students to produce superior programs that maintain high academic quality while also engaging students to participate as fully as possible in the learning experience. Professors can also use this information to develop tailor-made exercises, assignments, and learning environments that use technology effectively. This builds community among the students, loyalty to the university, and produces top-quality students. This research can also add to the literature about computer and technology mediated communication. It can also add to the research about how college students use technology in higher education.

### **Expertise for Conducting Research**

I have been developing and teaching online and hybrid (mix of face-to-face and online) courses for 6 years now. I was involved in a 3-year grant program that promoted, experimented with, and used online technologies for higher education. I was instrumental in setting up and training other faculty on Blackboard and Moodle. I helped gather research on students' educational use of Blackboard vs. Moodle. That research showed that Moodle was slightly more popular than Blackboard if the student was not using both Bb and Moodle at the same time.

My dissertation specifically addresses the use of technology mediated communication between college students and their parents. My research results show that less mature students use technology that offers more immediate feedback and cues than more mature students who use technology that allow them to have/maintain more independence.

I have used PDA's off and on for about 10 years (remember the Apple Newton?), and I have been using a PDA Phone (very similar to the iPhone) for more than a year now. I am very comfortable with new technologies and can adapt very quickly.

### **Methodology**

All ACU Freshmen were contacted via email and asked to respond to an online self-report survey at three times during the Fall 2008 semester, and once during the Spring 2009 semester. The first two surveys employed questions about expectations associated with using the iPhone/iPod Touch as well as questions about the perceived usefulness of the mobile devices. The third survey late in the fall semester asked about actual usage of the mobile devices and included the 24-item Objective Measure of Ego Identity Status (OM-EIS), a primary component of this research project that measures the identity status of the respondent. The fourth, fifth, and sixth surveys in the spring semester mirrored the three surveys of the fall semester, although the sixth survey (third survey of the semester) did not include the OM-EIS as research findings suggest identity status is unlikely to change greatly within a few months time.

The sample of participants chosen to participate in this survey was composed only of ACU Freshmen that received an iPhone or iPod Touch at the beginning of the 2008-2009 academic school year. Emails with a request to participate in the online survey were sent to over 1000 ACU email addresses. Participants were offered a chance to win a prize if they participated in the survey. The response rate averaged 16% over the year.

## Results

While there is more analysis to be completed with the large amount of data collected, preliminary results suggest some interesting trends in mobile device use as it relates to identity status (emotional maturity).

The less mature students tend to use their mobile device to interact with classmates significantly ( $p=.000$ ) more often than the more mature respondents (see Figure 1). However, the less mature respondents used their mobile device to interact with parents significantly ( $p=.058$ ) less than the more mature students (see Figure 2). Each of these results were based on subscales in the survey that inquired as to the use of the mobile device to interact with classmates, professors, friends, and parents respectively. Each subscale had six questions that differentiated interaction with different communication methods on the mobile device such as phone calls, emails, instant messaging, and social networking.

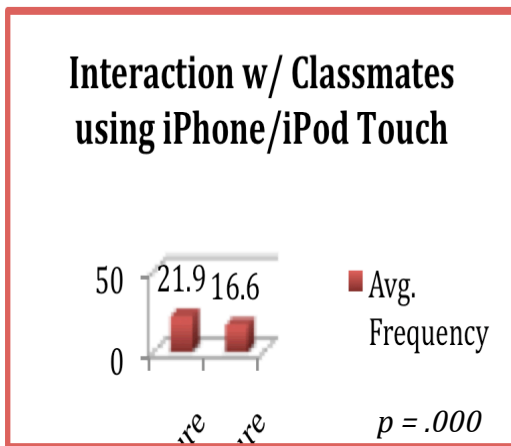


Figure 1.

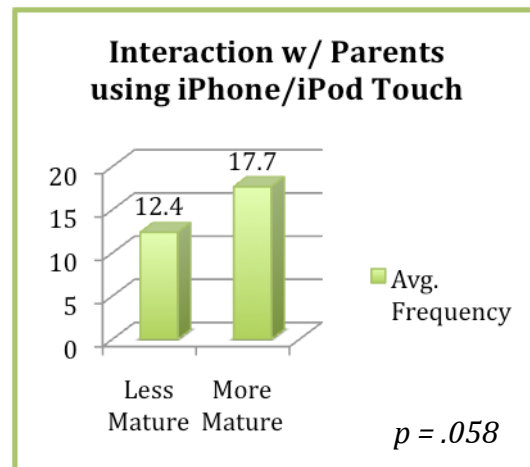


Figure 2.

Results indicated that less mature students use their mobile device significantly ( $p = .026$ ) less than more mature students to interact with their professors about academic matters (see Figure 3). Following that trend of the earlier subscale responses, less mature students use their mobile devices significantly ( $p=.050$ ) less than the more mature students to communicate with their parents (see Figure 4). These results were based on individual survey items that inquired about the frequency of use of the mobile device for particular activities.

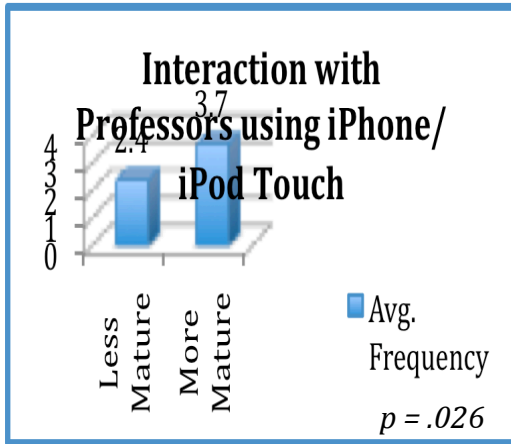


Figure 3.

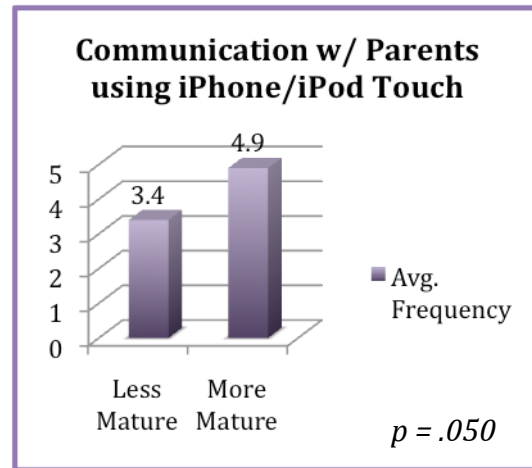


Figure 4.

Another result from this research suggests that more mature students use their mobile device to communicate with their parents through social networking websites (i.e. Facebook, MySpace, Twitter) significantly ( $p = .034$ ) more often than the less mature students that responded to this survey (see Figure 5).

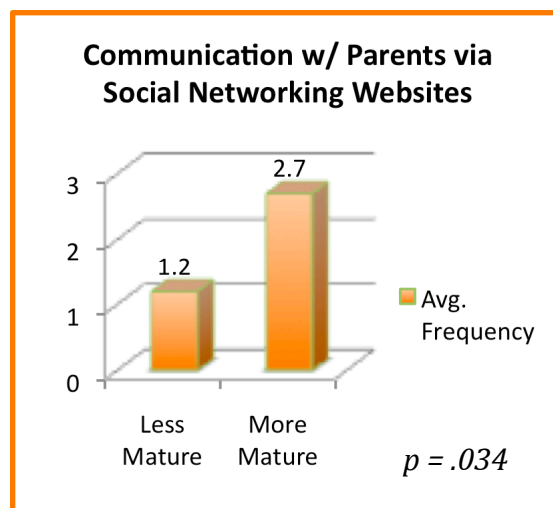


Figure 5.

## Discussion

While there is more work to be done, the results suggest some interesting dynamics related to maturity level as indicated by identity status and the use of mobile devices such as the iPhone or iPod Touch. The results suggest that less mature students are more likely to use a mobile learning device to collaborate with classmates on assignments and activities. Whereas more mature students are more likely to use a mobile learning device to interact

with professors about coursework, and are more likely to interact and communicate with their parents.

## **Summary**

The data seem to suggest that the less mature ACU students who received a mobile device are using it, and will use it, as a tool for social interaction with peers more than interaction with professors and/or parents. While there may be some debate about benefits or dangers of giving mobile devices to students, this suggest that students will not use the mobile device as much for academic purposes. Developmental literature suggests that less mature students will not succeed as well in the adult world. This research provides some evidence that these mobile devices could act as a tool to help students engage in interactions and activities that can help them develop emotionally and become more mature.

Developmental literature suggests that more mature students are more likely to succeed in the adult world. More mature ACU students who received a mobile device are more likely to use it for interacting with professors for academic matters and for (re) establishing and maintaining relationships with parents. More interaction with professors does not automatically result in academic success, but it facilitates a better learning environment where the student is more engaged with academic materials and interactions. Increased interaction and communication with parents does not equal healthy relationships, but it does suggest a better support system that includes family of origin members. Better emotional support in the form of familial relationships, and a higher level of identity status lead to better chances of academic and social success.

Mobile devices such as the iPhone and the iPod Touch are excellent tools or vehicles that facilitate relationships essential to academic, emotional, and social success. These results suggest that the iPhone and iPod Touch are beneficial for less mature and more mature students who receive them.