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Usability News is a free web newsletter that is produced by the Software Usability Research Laboratory (SURL) at Wichita State University. The SURL team specializes in software/website user interface design, usability testing, and research in human-computer interaction.

[Barbara S. Chaparro](#), Editor

College Students are Using the iPad, but Not for Schoolwork

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Summary. Since its release in April 2010, the Apple iPad has become the de facto tablet for consumers. In our [last issue](#) of Usability News, we reported survey results on how the iPad was being used by members of the workforce. Given the increasing popularity of the iPad as an educational device, we were interested in how college students are using the iPad. Results indicate students use the iPad for socializing, playing games, editing and posting photos, listening to audio, and taking pictures/videos more than non-students.

Note: This is a summary of the article "Apple iPad Usage Trends by Students and Non-Students" in the Proceedings of the Human Factors and Ergonomic Society, Boston, MA 2012.

INTRODUCTION

Selling 14.8 million units, the iPad was the best-selling tablet worldwide in 2010 and has become the tablet consumers want the most. In the quarter after its release of the iPad 2, Apple reported selling over 9 million iPads (both 1 and 2, combined). This was a 183% increase over the same quarter in the previous year, in which only the original iPad was available (Apple, Inc., 2011). In March 2012, the new iPad was released and sales continue to grow.

The iPad is also getting noticed in educational systems from K - 12 through university-level. New York City, Virginia, and Chicago schools have all ordered or applied for grants to initiate implementing iPads as educational tools (Subramanian, 2012). Some colleges have given iPads to their students as their primary source for assigned readings (Marmarelli & Ringle, 2011). Given the increasing popularity of the iPad as an educational device, we were interested in exploring how college students report their use of the iPad and how this compared to non-students.

METHOD

Participants

A total of 113 (61 students, 52 non-students) iPad owners (original iPad or iPad 2), answered the survey. Students' ages ranged from 18-40 years old ($M = 21.6$, $SD = 4.73$). The students were primarily White (70%), followed by Asian/Pacific Islander (23%). Fourteen percent had a college

degree or higher, 84% were laptop users, and 69% used a smart phone (50% of these owned an iPhone).

Non-students' ages ranged from 23-80 years old ($M = 43.1$, $SD = 12.2$). The non-students were primarily White (83%), followed by Asian/Pacific Islander (10%). Eighty-seven percent had a college degree or higher, 62% were laptop users, and 88% used a smart phone (63% of these owned an iPhone).

Materials

A 75-item online survey was generated by members of the Software Usability Research Lab (SURL) to explore iPad usage. The survey included basic user demographic questions, items about current computer and cellphone use, and questions more specific to the iPad. Owners of the iPad were questioned about general iPad use as well as how frequently they performed certain tasks on the device. Further, they completed a satisfaction questionnaire (adapted SUS from Brooke, 1996) and were asked to provide comments about the most liked and disliked features and applications for the iPad.

RESULTS

Activities Done on the iPad

We were interested in whether there were differences between students and non-students and how frequently they engaged in various activities on their iPad (Never, Monthly, Weekly, Daily, and Hourly). Activities that were examined included email, reading news, social networking, chatting, reading eMagazines, playing games, using maps/navigation, using calendar, viewing photos, editing photos, posting photos, creating art, creating music, watching movies or TV, listening to audio, watching YouTube or online videos, taking pictures or videos, web browsing, online banking, online shopping, creating documents for personal use, and reading eBooks.

Multiple 2 X 5 Chi-Square analyses were conducted to evaluate differences between students and non-students on frequency of activities (never, monthly, weekly, daily, and hourly). Out of the twenty-two activities investigated, a significant relationship between group and frequency were found for ten activities. Table 1 shows a summary of activities shown to differ significantly by group ($p < .05$). Figures 1 – 10 show the data by user group.

Table 1. Activities performed on the iPad most frequently by group (listed most frequently to least).

Students	Non-students
Social networking	Reading the news
Playing games	Reading eMagazines
Listening to audio	Reading eBooks
Chatting	
Taking pictures or videos	
Posting photos	
Editing photos	

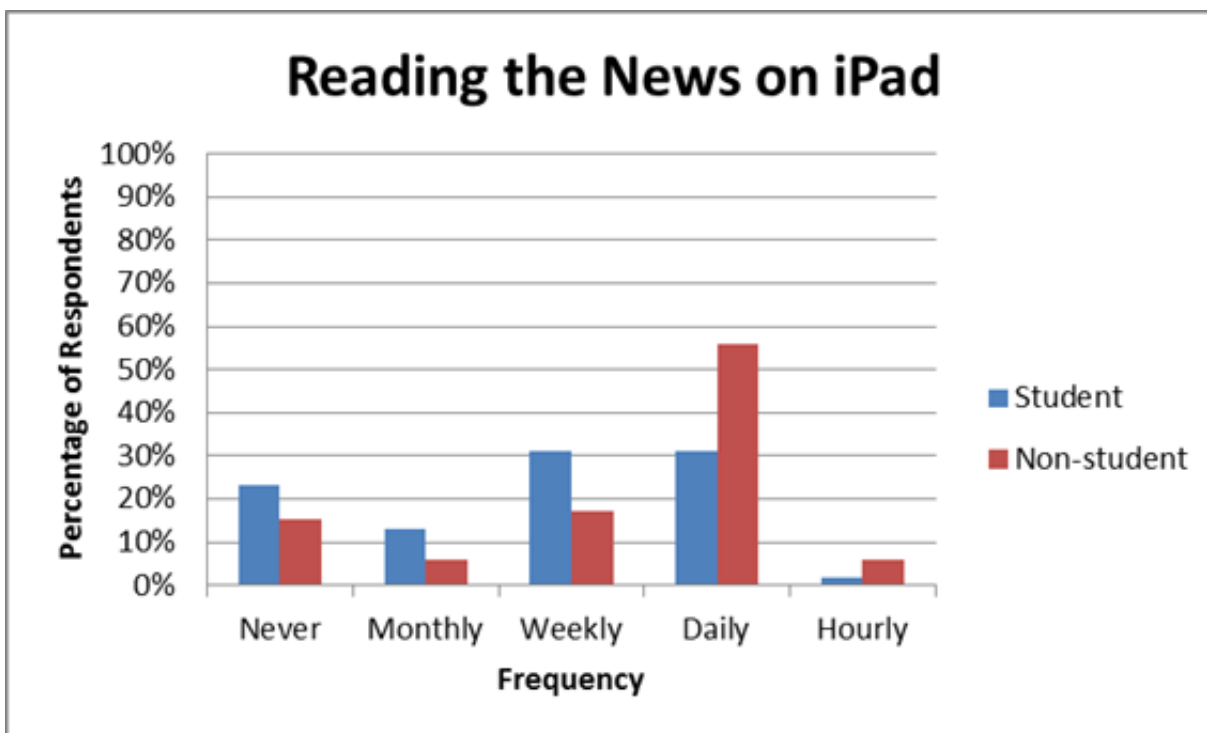


Figure 1. Non-students reported reading the news on the iPad more often than students ($n=113$).

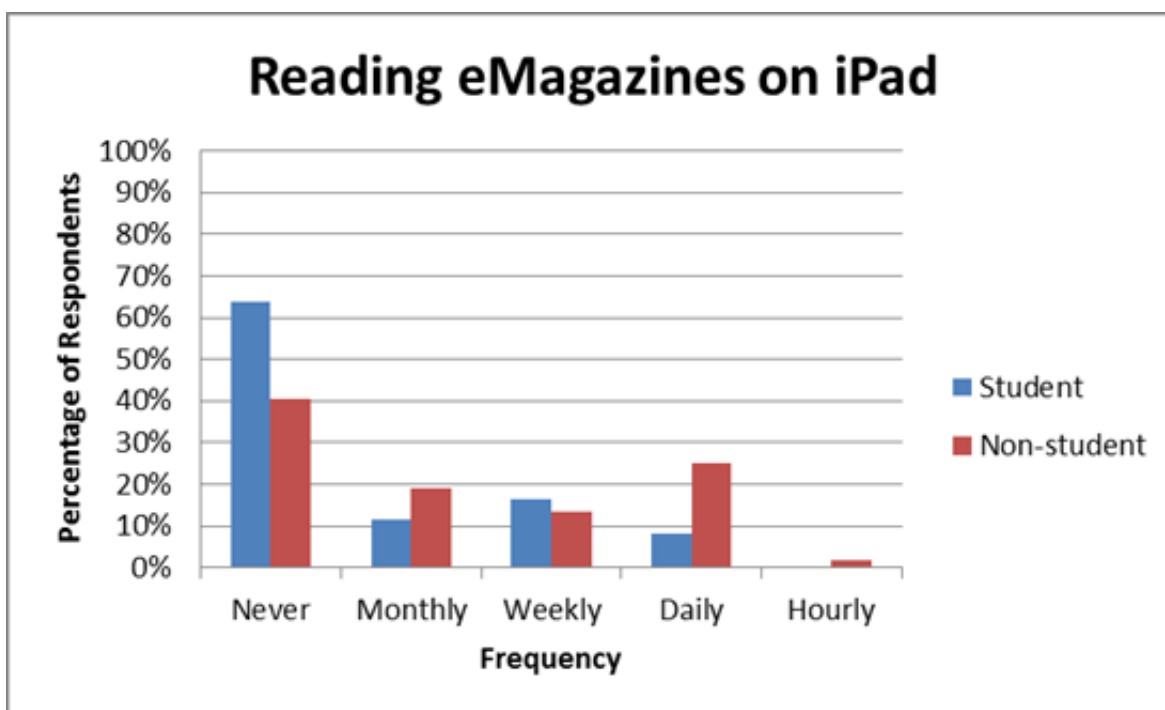


Figure 2. Non-students reported reading eMagazines on the iPad more often than students ($n=113$).

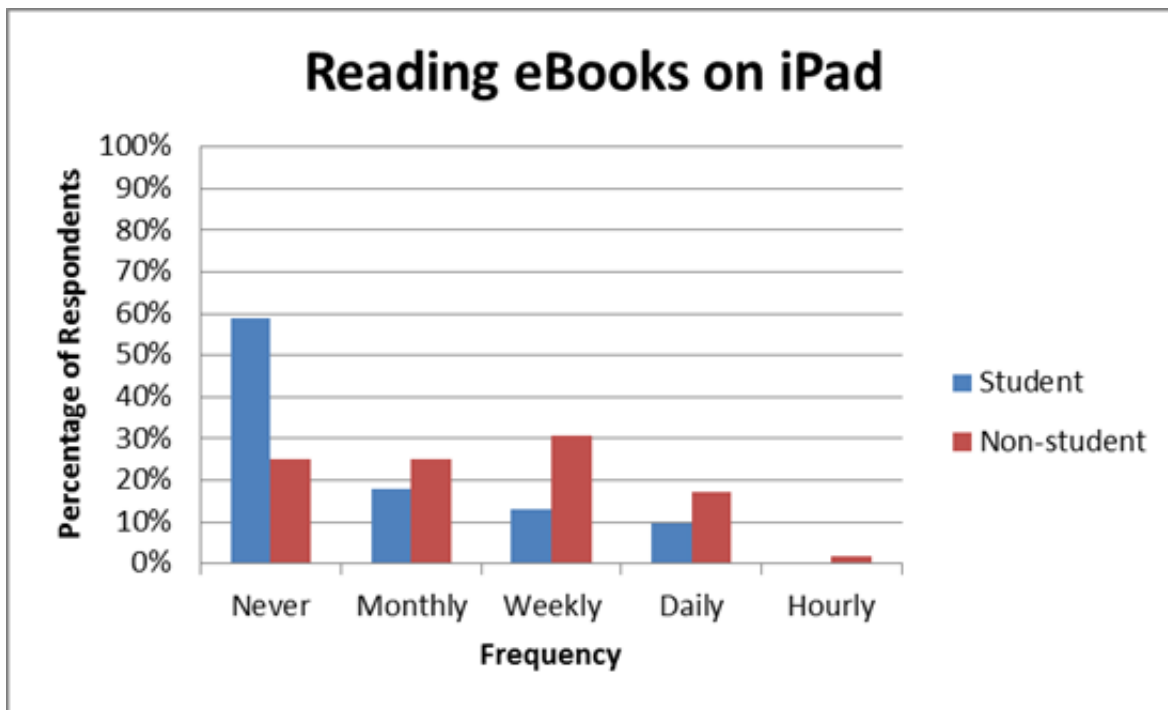


Figure 3. Non-students reported reading eBooks on the iPad more often than students ($n=113$).

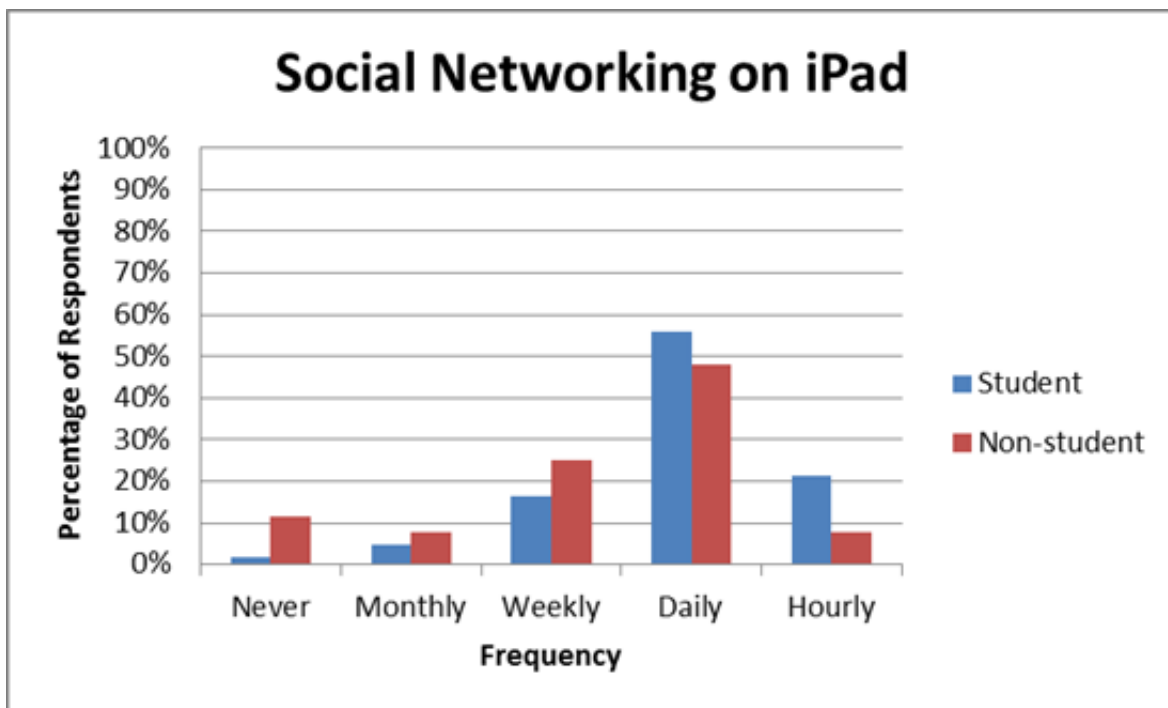


Figure 4. Students reported engaging in social networking on the iPad more often than non-students ($n=113$).

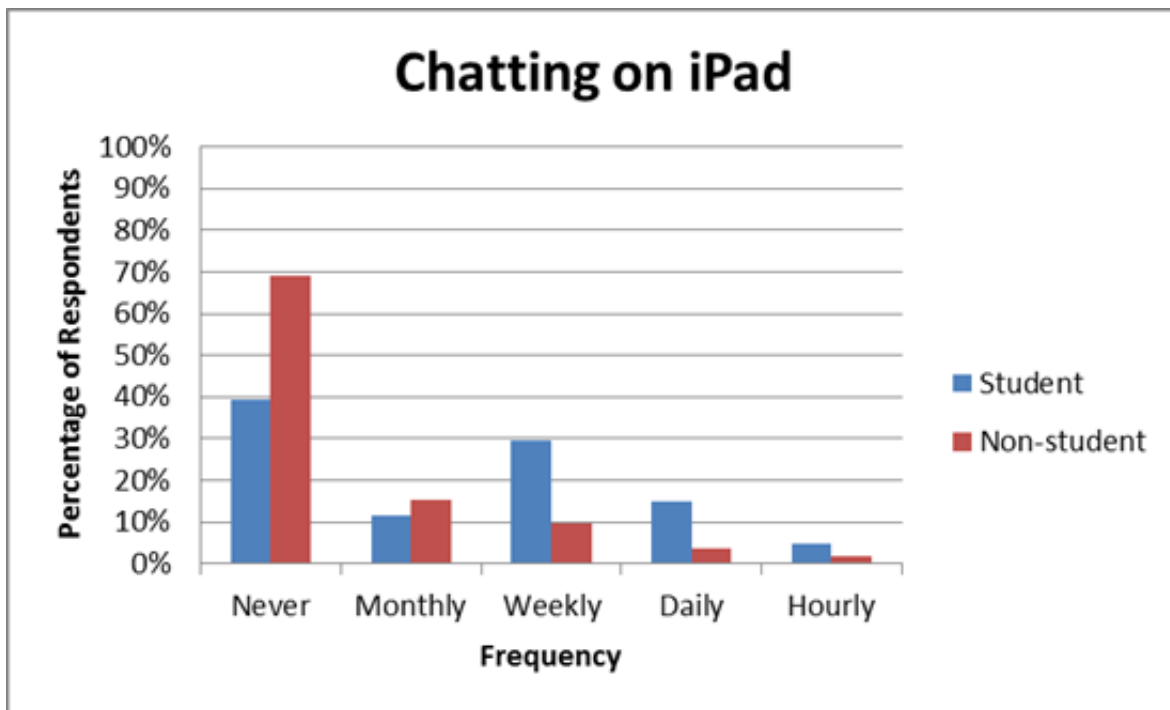


Figure 5. Students reported chatting on the iPad more often than non-students ($n=113$).

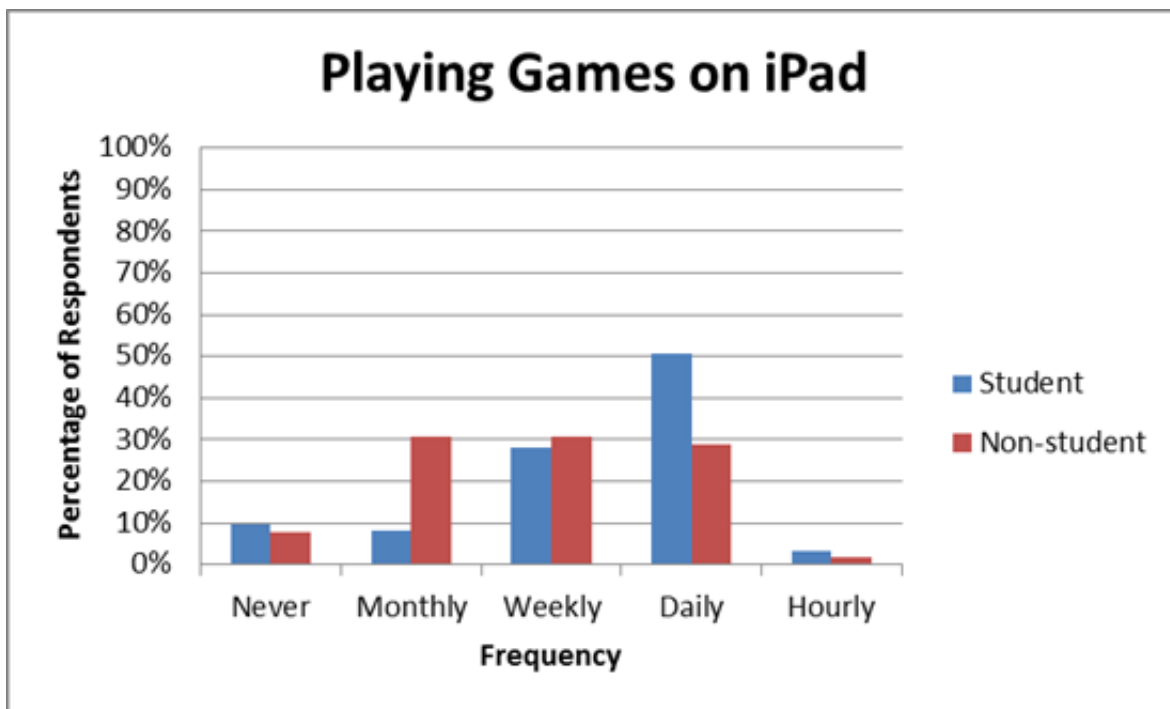


Figure 6. Students reported playing games on the iPad more often than non-students ($n=113$).

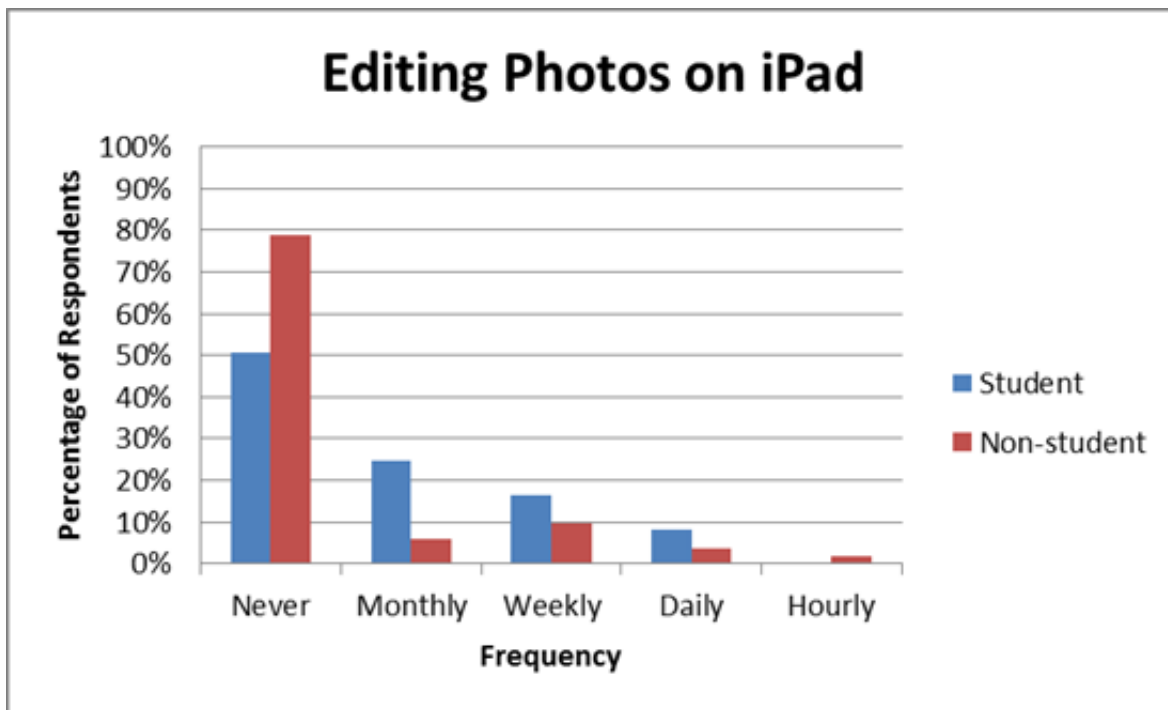


Figure 7. Students reported editing and posting photos on the iPad more often than non-students ($n=113$).

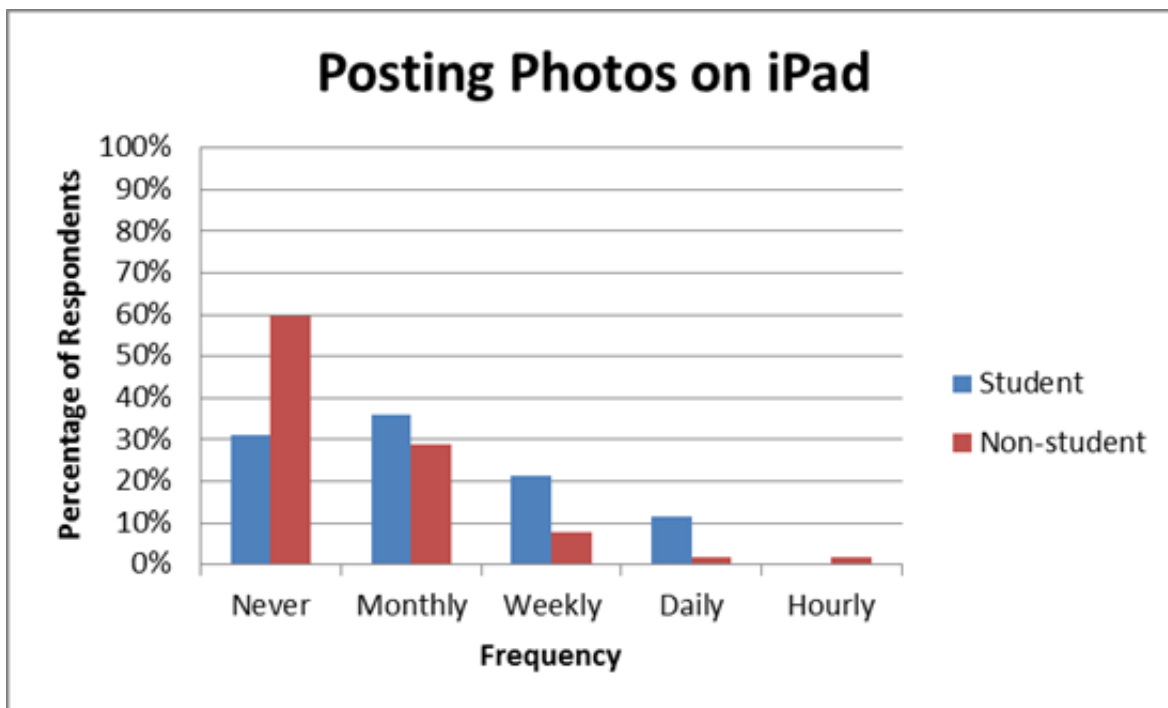


Figure 8. Students reported posting photos on the iPad more often than non-students ($n=113$).

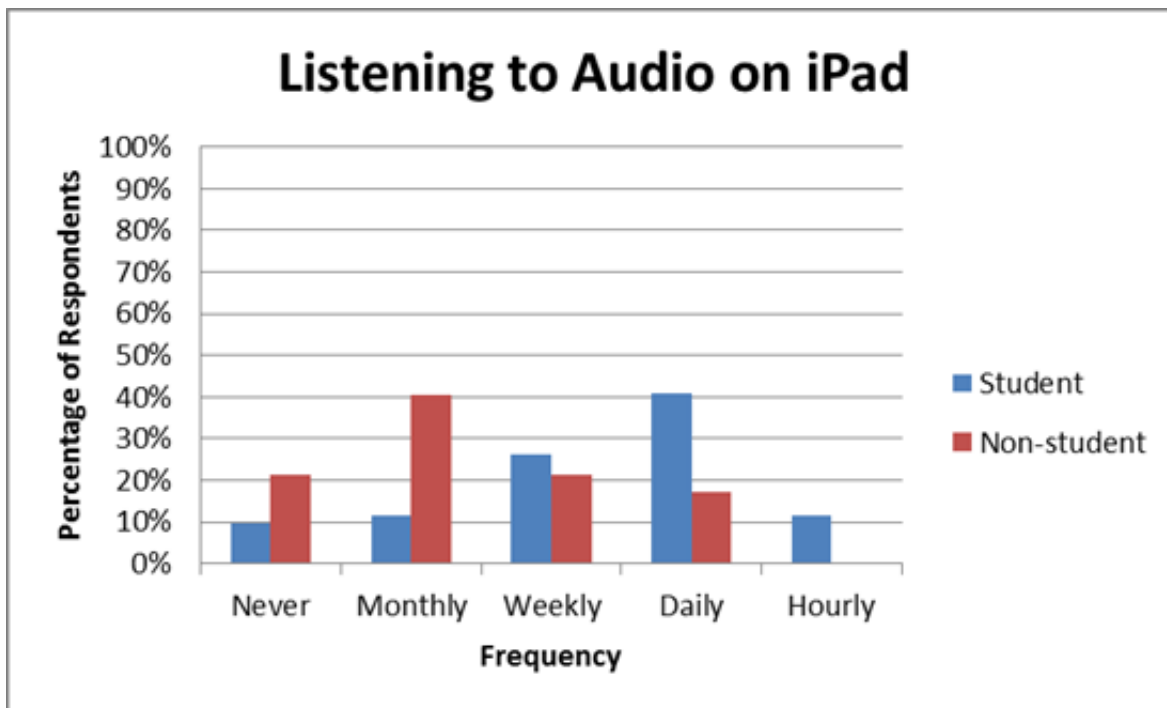


Figure 9. Students reported listening to audio on the iPad more often than non-students ($n=113$).

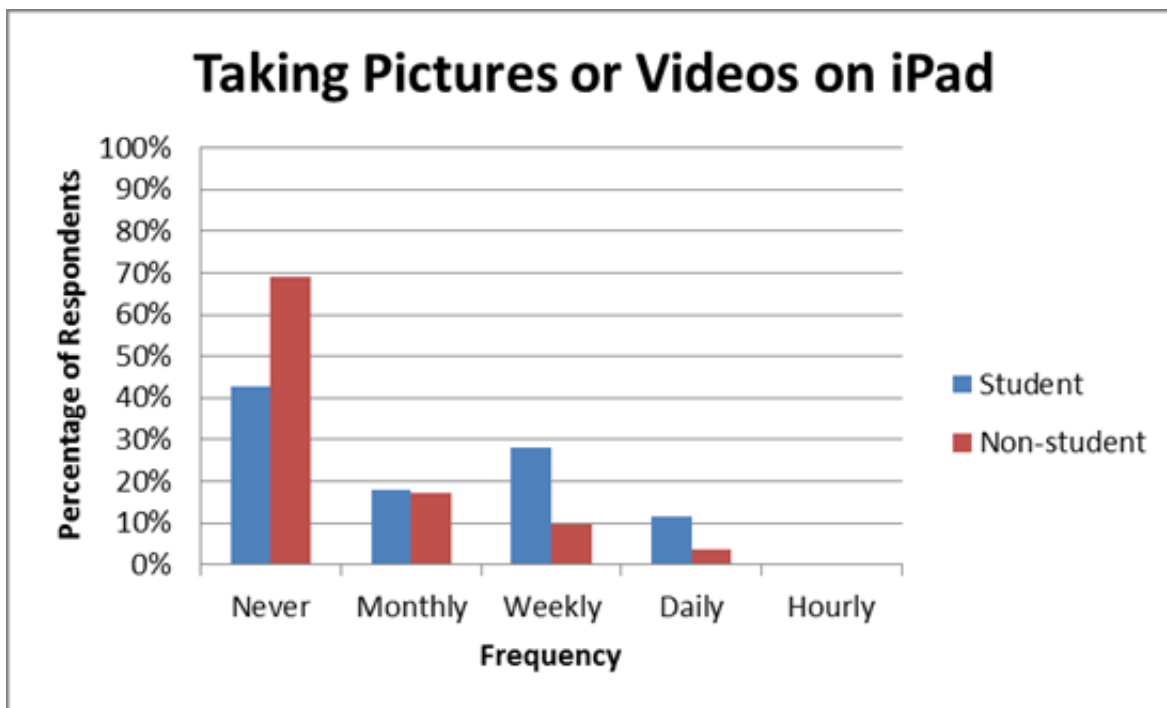


Figure 10. Students reported taking pictures or videos with the iPad more often than non-students ($n=113$).

Given the increasing popularity of e-Readers, we were curious as to how participants used the iPad to read e-books. Less than half (41%) of all students reported reading e-books on the iPad, and 30% had installed an e-Reader app other than Apple's iBook (e.g., Amazon Kindle app). Of the 18 students with an additional e-Reader application installed on their iPad (i.e., beyond Apple's iBook), they were asked how frequently they used their iPad to read e-books purchased for a specific e-Reader (e.g., using the Amazon Kindle app on the iPad). Fifty percent reported "seldom" use of iPad to read other e-books, while 28% reported "About half the time", 11% reported "Usually", and 11% reported

"Always".

Forty percent of the respondents that read e-books on the iPad reported owning at least one other e-Reader (e.g., Amazon Kindle, Sony Reader) other than the iPad. When asked why they read e-books on the iPad rather than on their e-Reader, respondents indicated it was convenient, they were already doing something on the iPad, or because the iPad had a touchscreen.

Three-quarter of all non-student respondents reported reading e-books on the iPad, and 58% had installed an e-Reader app other than Apple's iBook (e.g., Amazon Kindle app). Of the 30 participants with an additional e-Reader application installed on their iPad (i.e., beyond Apple's iBook), they were asked how frequently they used their iPad to read e-books purchased for a specific e-Reader (e.g., using the Amazon Kindle app on the iPad). Thirty-seven percent reported "seldom" use of iPad to read other e-books, while 30% reported "Always", 23% reported "Usually", and 10% reported "About half the time".

Thirty-seven percent of the respondents that read e-books on the iPad reported owning at least one other e-Reader (e.g., Amazon Kindle, Sony Reader) other than the iPad. When asked why they read e-books on the iPad rather than on their e-Reader, respondents indicated it was convenient, they were already doing something on the iPad, or because the iPad had a touchscreen.

Satisfaction

Users were very positive about their iPad. Student responses to the adapted SUS satisfaction questionnaire averaged 82.3 ($SD = 13.85$), while non-student responses averaged 83.65 ($SD = 18.27$), out of a possible 100. Respondents were also asked to rate the "user-friendliness" of the device on a 7-point Likert scale including Best Imaginable, Excellent, Good, Fair, Poor, Awful, and Worst Imaginable. The majority of the student respondents rated the iPad as "Excellent" (51%). A smaller percentage reported it to be "Good" (28%) and "Best Imaginable" (15%). The remaining reported it to be "Fair" (5%) or "Awful" (2%). None of the respondents rated it as "Poor" or "Worst Imaginable".

The majority of the non-student respondents rated the iPad as "Excellent" (62%). A smaller percentage reported it to be "Good" (21%) and "Best Imaginable" (10%). The remaining reported it to be "Fair" (4%), "Poor" (2%), or "Awful" (2%). None of the respondents rated it as "Worst Imaginable".

DISCUSSION

Our main goal of this study was to determine whether students and non-students use the iPad differently. Results indicate students socialize, play games, edit and post photos, listen to audio, and take picture or videos more often than non-students. Non-students generally read the news, eMagazines, and eBooks on the iPad more often than students. Although all of the mentioned activities can be considered entertainment, it seems that students use the iPad more for active entertainment while non-students use the iPad for literacy entertainment. The two groups did not differ in their use of the iPad for email, maps/navigation, calendar, viewing photos, creating art, creating music, watching movies or TV, watching YouTube or online videos, web browsing, online banking, online shopping, or creating documents for personal use.

Given the increase in using tablets in the classroom and the differences found between students and non-students in this study, further investigation is warranted on how tablets should be implemented in education and in the classroom to increase effectiveness and acceptance. In the college environment used in this study, the laptop computer is still the predominant computing device among students.

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