

never 経験 rarely ほど sometimes often 頻繁  
なし んどしない 時々する にする

(FacebookやMixi等)

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### **THANKS A LOT! ありがとうございます！**

The information you've given us is going to help a lot of teachers and students use technology effectively for teaching and learning. We really appreciate your help.

提供して頂いた情報は多くの教授と学生が効率的に授業を行い学習するために有益なものとなります。ご協力ありがとうございました。

The next set of items is about your online presence.  
以下の質問はオンライン活動についてです。

1. How do you most commonly access the Internet? \*

あなたが最も頻繁にインターネットにアクセスする方法はどれですか。

2. How long are you actively online in a day? 一日にオンラインネットワークを使用する時間はどれくらいですか。\*

'Actively' means using a computer, tablet, or phone to use the Internet for fun, for school, or for work. つまり、パソコン、タブレット型コンピューター、または携帯電話のオンライン機能を使って何かを楽しんだり、学校の課題、仕事をやる事です。

3. What are you doing online? \*

オンラインネットワークを利用して何をしますか。

	never なし	rarely ほとんどしない	sometimes 時々する	often 頻繁にする
banking 銀行取引／ 口座管理	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
communicating (e.g. emailing or chatting) コミュニケーション (メールやチャット等)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
entertaining myself (e.g. watching YouTube) 自身の娯 楽 (YouTube鑑賞等)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
gaming ゲーム	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
getting information (for school work) 情 報収集 (学校の為に)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
getting information (not for school work) 情報収集 (学校以外 の為に)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reading the news ニュース閲覧	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
sharing (e.g. downloading and/or uploading files) 情報 共有 (ファイルのダウ ンロード／アップロー ド)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
shopping ショッピング	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
socializing (e.g. using Facebook or Mixi) 交流目的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

定の課題に何のアプリケーションを使用するかわからない場合は、「わからない」と記入する。

(b) If you have used an application, but can't remember what it is called, write <CANT REMEMBER>. 特定のアプリケーションを使用したか、名前がわからない場合は、「覚えていない」と記入する。

(c) If you use more than one software application for a particular task, please write them both/all. 特定の課題に複数のアプリケーションをした場合、全ての名前を記入する。

(d) Don't worry about spelling. 英語の綴りに関してあまり気にしないこと。

**1. ESSAY: What software application do you use to write an essay? \***

エッセイ/論文: エッセイ/論文を書く際に何のソフトウェアアプリケーションを使用しますか。

**2. GRAPHS & CHARTS: What software application do you use to make a graph or a chart? \***

グラフと図表: グラフと図表を作成する際に何のソフトウェアアプリケーションを使用しますか。

**3. PRESENTATION: What software application do you use to give a presentation? \***

プレゼンテーション: プレゼンテーションをする際に何のソフトウェアアプリケーションを使用しますか。

**4. POSTER: What software application do you use to design a poster? \***

ポスター: ポスターをデザインする際に何のソフトウェアアプリケーションを使用しますか。

**5. PHOTOS: What software application do you use to edit photos? \***

写真: 写真を編集する際に何のソフトウェアアプリケーションを使用しますか。

**6. VIDEO: What software application do you use to edit video? \***

ビデオ: ビデオを編集する際に何のソフトウェアアプリケーションを使用しますか。

**7. AUDIO: What software application do you use to create and/or edit music and other audio? \***

音声: 音楽や音声を作成または編集する際に、何のソフトウェアアプリケーションを使用しますか。

4. In my opinion, I am skilled at using these different features of online services \*  
私はこれらのオンラインサービス機能を使いこなすスキルがある

1 2 3 4 5

strongly agree とても思う      strongly disagree とても思わない

5. Which of the following search engines do you use when looking for information on the Internet? インターネットで情報収集する際、以下のどの検索サイトを使用しますか。\*

These may have been used in class, on campus, or at home. クラス内、学内、自宅で使用されたものを含みます。

- Yahoo!
- Google
- Bing
- Goo Search
- Excite
- Infoseek
- Ask
- Biglobe
- AOLSearch
- Other:

6. In my opinion, I am skilled at looking for information on the Internet. \*

私はインターネットで情報収集するスキルがある

1 2 3 4 5

strongly agree とても思う      strongly disagree とても思わない

7. In my opinion, the information I find on the Internet when researching for class is reliable. \*

私がクラスの為にインターネットで収集する情報は信頼できる情報だ。

1 2 3 4 5

strongly agree とても思う      strongly disagree とても思わない

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## THE RIGHT TOOL FOR THE JOB 仕事に合ったツール

For the next set of questions, write the name of the software application you use for each task.

次の質問にはそれぞれあなたが使用するソフトウェアアプリケーションの名前を書いてください。

NOTE:

- (a) If you don't know what application to use for the task, write <DON'T KNOW>. 特

1. Which of the following online services have you used for your studies at KUIS? 以下のオンラインサービスで、神田外語大学の学習で使用したものはどれですか。\*

These may have been used in class, on campus, or at home.

- Moodle
- Facebook
- Edmodo
- Schoology
- Mixi
- Twitter
- MySpace
- BlogSpot
- WordPress
- Photoblogs 写真を使用したブログ ( e.g. picasa, Tumblr, Pinterest, 等 )
- Line
- Skype
- Kakao
- Google Chat チャット
- Other:

2. In my opinion, these online services help me learn. \*

これらのオンラインサービスは私の学習の手助けになると思う。

1 2 3 4 5

strongly agree とても思う      strongly disagree とても思わない

3. Which FEATURES of online services in Q1 have you used for your studies at KUIS? 質問1で記載されていたオンラインサービスの機能で、神田外語大学の学習で利用したことがあるものはどれですか。\*

These may have been used in class, on campus, or at home.

- emailing
- messaging メッセージ送受信
- chatting チャット
- downloading school work 教材ダウンロード
- uploading school work 教材アップロード
- making wikis and blogposts Wiki作成やブログの投稿
- participating in forums (意見交換の)フォーラム参加
- writing journals ジャーナル作成
- uploading photos 写真のアップロード
- looking at photos 写真閲覧
- commenting on other people's posts or photos 他者の写真や投稿に対してのコメント
- Other:

	not important 重要じゃない	a little important 重要	slightly important 重要	very important とても重要
Other (if listed above in Q5) その他(質問5で回答した場合のみ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. What is your competency at creating media for presentations? \*  
自分のプレゼンテーション用メディアクリエーション能力についてどう思いますか。

	never used 使用した事がない	beginner 初級	average 平均 程度	expert 上級
audio recordings 録音	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
video recordings 録画	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
slide shows スライドショー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
podcasts ポッドキャスト	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
charts and graphs 図表とグラフ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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### GOING ONLINE FOR SCHOOL 学校の為のオンライン利用

Here you will answer questions about using the Internet as part of your learning at KUIS.  
ここでは神田外語大学での学習の一部としてインターネットを利用する事について回答してください。

Google Spreadsheet, 等)

Option 4

Media creation software (e.g. iMovie, Windows Movie Maker, etc.) メディアクリエーションソフトウェア (iMovie, Windows Movie Maker, 等)

Image editing software (e.g. Photoshop, GIMP, Paint, iPhoto, etc.) 画像編集ソフトウェア (Photoshop, GIMP, Paint, iPhoto, 等)

Other:

**6. What do you think your software competency is? 自分のソフトウェア使用能力についてどう思いますか。\***

In your opinion, how well can you use the following software packages? 以下のソフトウェアをどれくらい使いこなせていますか。

	never used 使用した事がない	beginner 初級	average 平均 程度	expert 上級
word processing software 文書処理 (ワードプロセッサ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
presentation software プレゼンテーションソフトウェア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
spreadsheet software 表計算ソフトウェア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
media creation software メディアクリエーションソフトウェア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
image editing software 画像編集ソフトウェア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (if listed above in Q5) その他(質問5で回答した場合のみ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**7. How important are the following software packages for your studies at KUIS? \***

以下のソフトウェアは神田外語大学での学習でどれほど重要ですか。

	not important 重要じゃない	a little important 少し重要	important 重要	very important とても重要
word processing software 文書処理 (ワードプロセッサ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
presentation software プレゼンテーションソフトウェア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
spreadsheet software 表計算ソフトウェア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
media creation software メディアクリエーションソフトウェア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
image editing software 画像編集ソフトウェア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	never used 使用した事が無い	beginner 初級	average 平均程度	expert 上級
camera (photography) カメラ (写真撮影目的)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
media player メディアプレーヤー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
voice recorder ボイスレコーダー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
projector プロジェクター	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
other (if listed above in Q2) その他(質問2で回答した場合のみ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. How important are the following hardware technologies for your studies at KUIS? 以下のテクノロジー(機材)は神田外語大学での学習でどれ程重要ですか\*

	not important 重要じゃない	a little important 少し重要	important 重要	very important とても重要
desktop computer パソコン	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
laptop computer ノートパソコン	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tablet タブレット型コンピューター	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
phone 携帯電話	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
USB thumb drive USB	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
camera (videoing) カメラ(録画目的)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
camera (photography) カメラ(写真撮影目的)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
media player メディアプレーヤー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
voice recorder ボイスレコーダー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
projector プロジェクター	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
other (if listed above in Q2) その他(質問2で回答した場合のみ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Which of the following types of software packages have you used for your studies at KUIS? 以下のソフトウェアの内、どれを神田外語大学での学習で使用した事がありますか。\*

These may have been used in class, on campus, or at home. クラス内、学内、自宅で使用されたものを含みません。

- Word processing software (e.g. Microsoft Word, Pages, Google Documents, OpenOffice, etc.) 文書処理ソフトウェア(Word, Pages, OpenOffice, 等)
- Presentation software (e.g. PowerPoint, Keynote, Google Presentation, etc.) プレゼンテーションソフトウェア(Power Point, Keynote, Google Presentation, 等)
- Spreadsheet software (e.g. Excel, Numbers, Google Spreadsheet, etc.) 表計算ソフト(excel, Numbers,



**TECHNOLOGY AT SCHOOL 学内でのテクノロジー(機材)使用について**

Here you will answer general questions about technology and learning. ここでは一般的な意味でのテクノロジーと学習について回答してください。

1. At KUIS, technology helps me learn English. 神田外語大学で使用できるテクノロジーは英語学習に役立つ。

1 2 3 4 5

strongly agree とても思う ○ ○ ○ ○ ○ strongly disagree とても思わない

2. Which of the following hardware technologies have you used for your studies at KUIS? 神田外語大学で学習する際、以下のどの機材を使用した事がありますか。\*

These may have been used in class, on campus, or at home. クラス内、学内、自宅で使用されたものを含みます

- desktop computer パソコン
- laptop computer ノートパソコン
- tablet タブレット型コンピューター
- phone 携帯電話
- USB thumb drive USB
- camera (for videoing) カメラ(録画目的で)
- camera (for photography) カメラ(写真撮影目的で)
- media player (e.g. iPod) メディアプレイヤー(例 iPod)
- voice recorder ボイスレコーダー
- projector プロジェクター
- Other:

3. What do you think your hardware competency is? 自分のテクノロジー(機材)使用能力についてどう思いますか。\*

In your opinion, how well can you use the following hardware technologies? (Note: 'competency' means コンピテンシー) 以下の機材をどれくらい使いこなせていると思いますか。

	never used 使用した事が無い	beginner 初級	average 平均程度	expert 上級
desktop computer パソコン	○	○	○	○
laptop computer ノートパソコン	○	○	○	○
tablet タブレット型コンピューター	○	○	○	○
phone 携帯電話	○	○	○	○
USB thumb drive USB	○	○	○	○
camera (videoing) カメラ(録画目的で)	○	○	○	○

## APPENDIX – SURVEY ITEMS

### USING TECHNOLOGY

Hi. And firstly, thanks for taking the time to complete this survey.  
こんにちは。まずは、このアンケートにご協力いただきありがとうございます。

By helping us understand how you use different kinds of technology, we hope to improve the ways in which technology is used as a learning tool. Our aim is to help you and your friends become better learners.  
どのように様々なテクノロジーが使用されているのかを教えてください。今後の学習ツールとしてのテクノロジー使用方法を改善していきたいと思います。私たちの目標は生徒がより良い学習者になる手伝いをすることです。

By clicking 'continue' you hereby agree to allow collected data to be used anonymously for the purpose of researching KUIS students' use of technology.  
「次へ(continue)」をクリックすることにより、「神田外語大学における学生のテクノロジー利用」の研究目的で、あなたの情報が匿名で使用される事に同意したとみなされます。

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### A BIT ABOUT YOU あなたについて

All data we collect is anonymous - but we'd like just a little bit of information about you because this will help us make good decisions about technology use here at KUIS.  
全ての情報は匿名で回収されますが、神田外語大学でのテクノロジー使用に関するより良い方針を決定するために、必要最低限の情報を教えてください。

#### Department at KUIS \*

神田外語大学での学部

- English 英米語学部
- Chinese 中国語専攻
- Spanish スペイン語専攻
- Korean 韓国語専攻
- International Communication 国際コミュニケーション専攻 (IC)
- Language and Culture 国際言語文化学科 (LC or ML)
- Other:

#### University year \*

神田外語大学での学部

#### Age \*

年齢

#### Sex \*

性別

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## **FUTURE CONSIDERATIONS**

This paper is limited in that it offers discussion only the sections of the survey concerning hardware and software. A second paper will look at the sections of the survey examining students' online habits and how they use technology outside of university. Together, both papers will offer a comprehensive view of the technological landscape through which university students at KUIS navigate. Also, the researchers realize that the data collected thus far may be skewed as they consider themselves quite forward in their application of educational technology. Therefore, they intend to data from teachers whose classes may more accurately represent technology use in the university classroom.

## **ACKNOWLEDGEMENTS**

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## **DISCUSSION**

The findings so far align with those of Margaryan, Littlejohn, & Vojt (2011), whose paper paints a picture of learners who are tech-proficient, though with a relatively small set of technology tools. It is evident that many learners know how to use word-processing software but not much else. Perhaps, this narrow range of proficiencies is borne of teachers who themselves are reliant upon a small set of tech-tools, and their students are merely exhibiting learnt behavior. A substantial amount of research carried out on tech-competencies has centered upon pre-service or new teachers – and maybe teachers at KUIS would be best served by implementing a professional development program utilizing an established framework such as TPACK.

Furthermore, as recognized by Oblinger (2003), educators need to be informed by the repertoire of tech-skills the students currently possess, and base educational technology decisions around current norms rather than require students to operate within an outmoded technology framework. Krause, McEwan and Blinco (2009) state the importance that the freshman year plays in ensuring students stay engaged with educational technologies for the duration of their university lives. Pleasingly, the freshman students at KUIS responded favorably when queried on the value technology plays in their studies. However, teachers need to operate in a coordinated fashion ensuring that tech-skills acquired and honed in one class are used and built upon in another class – and this requires that explicit standards be established that recognize learners' existing technology skillset and take into account sound pedagogical principles.

iTunes (which is cross platform – but only readily available on iPads at KUIS).

The high rate of Microsoft Windows software, is most likely attributable to teachers at KUIS having university-provided laptop computers running Microsoft Windows and students also typically using university laptop computers, which are

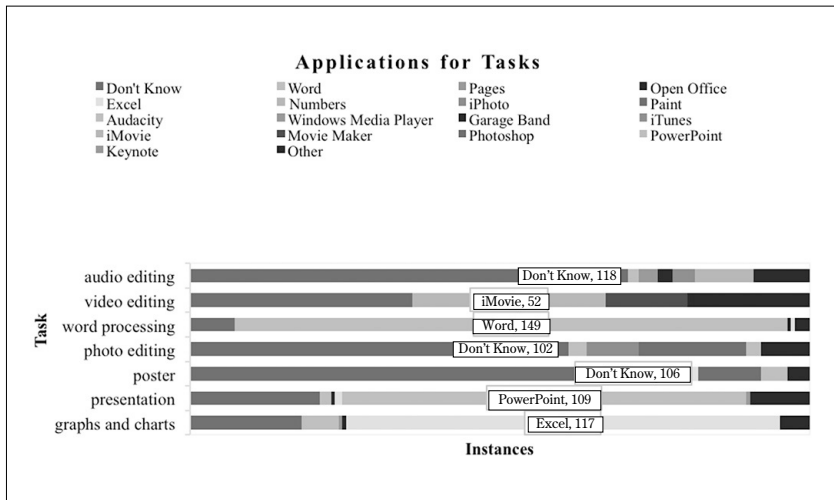


Figure 6. Stacked bar chart showing students' primary choice of software applications for various tasks.

also Windows machines. Also noticeable is the absence of all cloud-based software solutions, such as the app suite bundled with Google Drive. Perhaps this might be due to teachers at KUIS presently favoring installed software rather than cloud based equivalents. Students at KUIS all have university Gmail accounts so perhaps there needs to be training programs such as workshops in order for teachers being able to demonstrate alternative online solutions to their students.

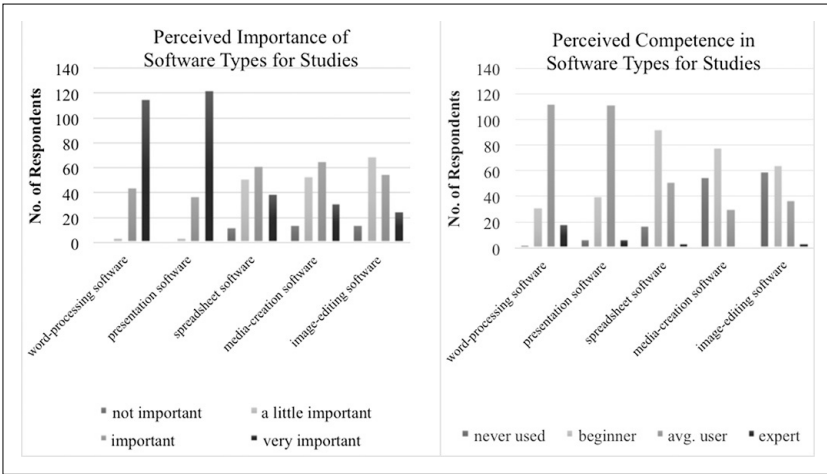


Figure 5. Two column charts showing students perceptions of the importance of software types and their perceptions of competence in using software types.

Looking deeper into the data on software, students were asked what particular application they would typically use when doing a specific task. Figure 6 (below) highlights the key findings related to the prevalent software-based tasks. In Figure 6, the important trends are highlighted. Of interest is the high incidence of ‘Don’t Know’, with only three of the seven tasks – graphs and charts, presentations, and word processing – registering a higher rate of students using a particular application than simply not knowing. Furthermore, there is a noticeable division between traditional productivity tasks (word processing, data processing, presenting) and what might be considered creativity tasks (audio editing, video editing, photo editing), with the former dominated by Microsoft Windows applications (Word, Excel, and PowerPoint, all three part of the Microsoft Office suite) and the latter by Apple OSX and OS7 applications such as iMovie, iPhoto, and



### (III) Software

Software is also an important consideration. Students not only have to accept the hardware technology, but they have to be able to interact with the devices effectively and efficiently using a wide array of software packages specific to the task at hand. The initial survey items regarding software were similar in style to those in the hardware section. The first asked students to list common types of software used for their studies. The results are shown in Figure 3 below.

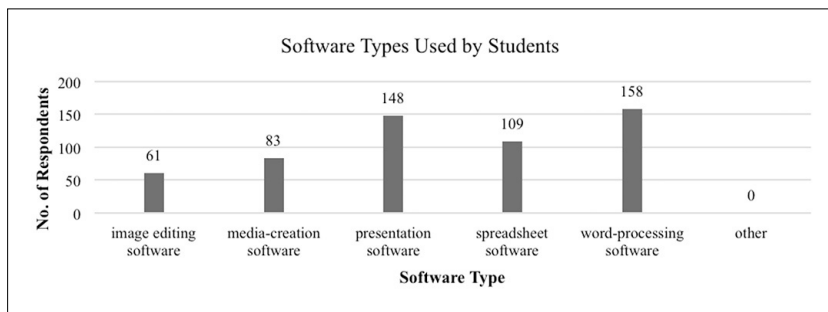


Figure 4. Column chart showing the results of a survey item asking students to state what software types they used for their studies.

Looking at Figure 4, it is apparent that students use technology significantly for writing documents and for presenting. This accurately represents tasks carried out across a variety of classes by students, whose productive endeavors are often individual and group presentations or word-processed reports.

Figure 5 (below) is a side-by-side comparison of perceived importance and perceived competency regarding software types. Importance and competence tend to correlate, which supports the levels of usage in Figure 4 above.

What is clear looking at these two graphs side-by-side is that although the students viewed computers and USB thumb drives as significantly important for their studies, generally, they only rated themselves as average users of the technology, with only the USB thumb drive – a relatively ‘dumb’ device – registering a significant number of ‘expert’ users. This indicates that students need to undergo further training, either implicit or explicit, in the use of laptop and desktop computers. Another interesting finding is that although Figure 2 revealed that phones, voice-recorders, and cameras for videoing were used extensively in classes, students don’t necessarily view these technologies as important to their studies.

It is interesting to drill down into these results and look at tablets and how well they might be accepted by learners since they will play a significant role from the 2014 academic year with all incoming freshman students required to purchase iPads for their studies at KUIS. To do this, the Technology Acceptance Model (TAM) (Davis, 1989) is applied, which, in its simplest iteration, takes two factors – ease of use (analogous to ‘competence’ here) and perceived usefulness (analogous to ‘importance’ here) – to determine the acceptance of a particular technology. The collected data on tablet computers reveals that 92 students (55.1%) feel that tablets are important or very important, and 131 students (78.4%) feel that they are average to expert users of tablets. These two data points tend to point toward an acceptance of tablets in education; however, the perceived level of importance is only slightly favorable, which suggests that teachers need to do more to espouse to students the educational merits of tablet devices.

What is interesting to note from looking at Figure 2 is that even though the students are predictably using the hardware available to them at Kanda such as laptops and desktop computers, many of them are using their smart phones (81%) and tablets (51%). The high use of phones probably represents the penetration of smartphones among university-aged Japanese students. However, the high level of tablet use may not reflect the entire student body. This is because the researchers involved tend to favour using technology in the classroom, and state that they often make use of the mobile iPad cart available for teachers to use in certain classrooms.

To continue looking at hardware, the survey elicited data on what technologies were perceived as being important to the respondents, as well as data on what the respondents perceived their competencies to be in these respective technologies, represented in Figure 3 below

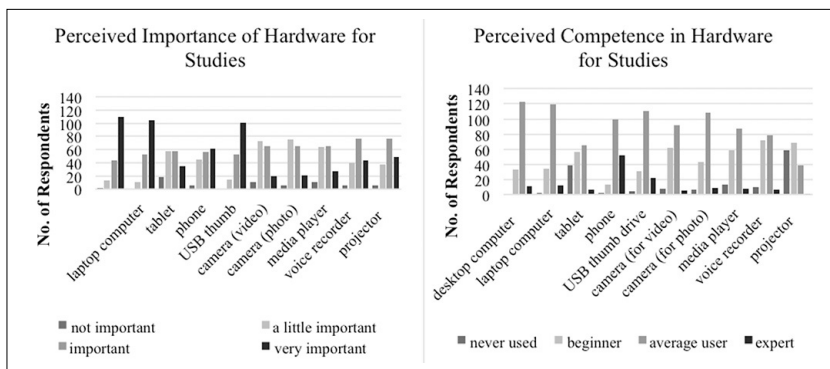


Figure 3. Two column charts showing students' perceptions of the importance of hardware types and their perceptions of competence in using hardware types.

further investigation. The oldest age-range of learners responded with the least favorable reaction to technology. This might be attributable to a lower technological expertise, perhaps having had fewer opportunities to interact with smartphones, tablets, and the like in their secondary and early-tertiary school lives. This proposition could be tested in future by measuring that cohort's core technology competency.

### (II) Hardware

Respondents (n=167) were first asked to check multiple items on a list asking them which hardware technologies they used for their studies. The results are represented in Figure 2.

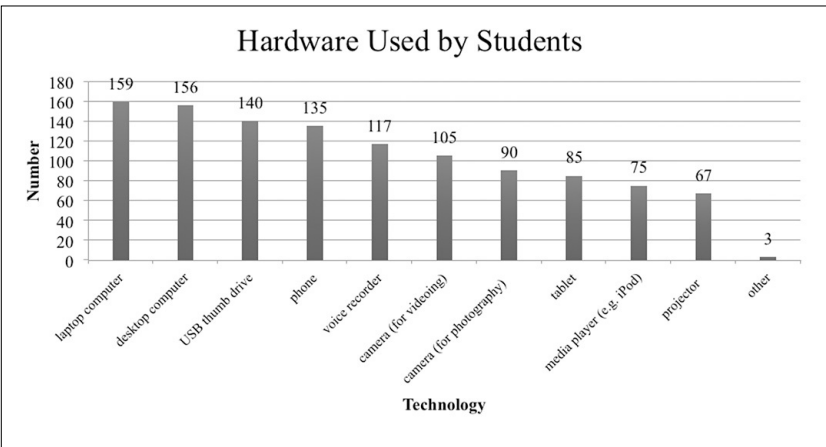


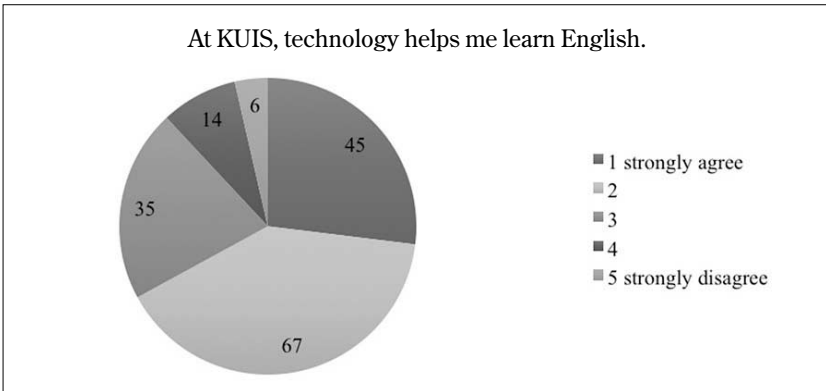
Figure 2. Column chart showing the results of a survey item asking students to state what technologies they used for their studies.

Table 2  
*Technology Helps Me Learn English (Differentiated)*

	<b>Differentiator</b>	<b>Mean Rating</b>
<b>Gender</b>	Male	2.3
	Female	2.188976378
<b>Dept.</b>	English	2.293333333
	IC	2.215189873
	ILC	1.769230769
<b>Year</b>	Freshman	2.11578947
	Sophomore	2.25714286
	Junior	2.45714286
	Senior	2.0
<b>Age</b>	18	2.275
	19	2.06849315
	20	2.11764706
	21	2.42307692
	22	2.5
	23+	2.66666667

1 strongly agree  
2  
3  
4  
5 strongly disagree

The mean ratings show that beliefs regarding the virtues of educational technology are fairly consistent across all differentiators. ILC students are shown to agree most strongly that technology is beneficial to their studies ( $=1.769230769$ ) while the oldest students, those twenty-three and older, are shown to be least agreeable ( $=2.66666667$ ), with a standard deviation  $\sigma_x=1.118033989$ . The ILC students were most positive in their response, although the reasons why are unclear and warrant



*Figure 1.* Pie chart showing the results of a Likert scale item asking students whether they think technology helps them learn English.

Overall, it can be surmised from Figure 1 that students tend to view technology as having a positive effect on their learning. This aligns with the concept of ‘Digital Natives’, who see technology as an essential element of their lives. A closer inspection of the data is detailed in Table 2. Here, opinions on the value of technology to aid language learning are broken down into differentiated groups.

The instrument used for collecting data was a 68-item bilingual (Japanese and English) survey that was administered over the second semester of the 2012 academic year (see appendix 1). Inspiration for this instrument comes from a study by Kennedy, Judd, Churchward, Gray, & Krause (2008), which reports on the technology habits of university freshman students at an Australian university. The question types were, for the most part, semantic differential scales, matrices, and multiple-choice sets. The survey was completed in-class so that the teacher was on hand to clarify any questions the participants might have regarding the survey. The authors used Google Forms to create the survey and the data were automatically collated to a Google spreadsheet for simple analysis. The tool was used to investigate three broad realms of interest:

- learners' experiences with hardware
- learners' experiences with software
- learners' experiences online

## **FINDINGS**

### **(I) Attitudes**

The first item on the survey is a 5-point Likert scale (1=strongly agree; 5=strongly disagree) asking the respondents to rate the statement: *At KUIS, technology helps me learn English*. Generally, respondents tended to agree with this statement, with a mean response  $\bar{x}=2.215568862$  ( $\sigma_x=1.05$ ).

this paper belonged. The intent of this research was to determine which educational technologies to support through workshops for teachers and students by assessing both the utility of a variety of tech-tools and the proficiency of the respective users. The CALL research group was seeking a way to gauge what aspects of technology in education were most salient for learners and teachers, the information gained to be used to determine what technologies best supported the various learning objectives and, consequently, what levels of proficiency would be required of both students and, by association, teachers. And, in light of the fact that all incoming 2014 freshman students will be using iPads in their studies, it becomes crucial that teachers at KUIS are able to measure to some degree the educational value of new technologies such as tablet computers.

**METHOD**

This study involved 167 students at KUIS. The demographic of the population is broken down into four categories in Table 1.

Table 1  
*Participant Demographics*

Department		Year		Age		Gender	
English	76	Freshman	95	18	42	Female	125
IC	78	Sophomore	35	19	71	Male	42
ILC	13	Junior	35	20	17		
		Senior	2	21	26		
				22	2		
				23+	9		



Hohlfeld Ritzhaupt, & Barron, 2010) or on teachers (Crittenden, 2009; Hockett, 2009; Semiz & Ince, 2012; Lu, 2002), particularly pre-service teachers; however, there are comparatively few studies looking at the tech-competencies of learners, though some do exist (Edmunds, Thorpe & Conole, 2012). A study by Margaryan, Littlejohn, & Vojt (2011) looked at digital natives and discovered that, by and large, university students were proficient with a fairly narrow band of digital tools. Oblinger & Oblinger (2005) present a broad paper describing how technology is an integrated facet of today's learner for whom using technology is an intuitive experience, and an earlier study by Jones (2002).

In the end, though, educators cannot simply be beholden to technology. Oblinger (2003) points out that educators operate in a world where it is very likely that the learners have a higher tech-literacy than their teachers; therefore, universities need in place some kind of mechanism that balances student opinion with the views of the educators who have the power to institute educational technologies. A comprehensive study by Kirkwood & Price (2005) reminds educators that it is not technology in isolation that enhances the learning experience; rather, it is pedagogy and best practice that must inform educators how to implement technology properly. Only by understanding how learners engage the digital landscape can course designers integrate educational technologies in a manner befitting a generation of university students who have grown up in a digital world.

## **INTRODUCTION**

The genesis of this study lay in foundational research in tech-competencies carried out by the CALL research group in 2011 and 2012, to which the three authors of

various technologies?

## **LITERATURE**

Technology has become a defining characteristic for an entire generation that has been labeled 'Digital Natives, those born from around the mid-1980s onward for whom digital technology is an innate component of their lives (Prensky, 2001; McCrindle, 2006). There has been significant development in technologies over the past few decades and this has created substantial interest in the possibilities technology has in the field of education. A large body of literature exists that looks at the degree to which technology improves education (Ringstaff & Kelley, 2002; Spector 2010) and a large part of this literature examines how technology might be integrated into the educational process (Roblyer, Edwards & Havriluk, 2006). The rise in the importance of educational technology has resulted in the proliferation of organizations supporting the advancement of technology-related proficiencies and standards, the premiere organization being the International Society for Technology in Education (ISTE).

One primary consideration is not technology in isolation, but how teachers and students interact with it and how they feel about it, and this has required the development of research tools that measure how users interface with educational technology. Such tools seek to identify the user's technological pedagogical content knowledge (TPACK) (Koehler & Mishra, 2009), technology integration self-efficacy (TISE) (Niederhauser & Perkmén, 2010) or instructional technology outcome expectations (ITOE) (Brinkerhoff, 2006). Much of this research focuses on either K-12 learners (Niederhauser & Lindstrom, 2006; Moersch, 2011;

# **An Analysis of Student Technological Competencies at Kanda University of International Studies: A Longitudinal Quantitative Approach**

**Jason Ropitini  
Marnie Brown  
Raswan Sockol**

## **ABSTRACT**

This pilot study reports on the preliminary findings of the first stage of a multi-phase study examining tech-competencies of Japanese university students. The study as a whole will examine how students, during their four years at Kanda University of International Studies (KUIS), advance through three phases in the process of developing and proving their competence, those being:

- to assess themselves by understanding each competency and viewing illustrative examples,
- to develop each competency through online tutorials or assignments embedded in coursework, and
- to prove their competence by submitting evidence online.

The initial phase of the study – the focus of this paper – utilizes a self-assessment tech-competency tool with freshman, sophomore, junior, and senior students across multiple departments at KUIS. The collated data will inform the design of the next phase of the study, that being the creation of competency-developing modules to address the most salient educational-technology weaknesses that emerge from the data. This initial phase, then, asks four fundamental questions, from which correlations can be extrapolated:

- What technologies are students using in their personal lives?
- What technologies are students using for learning?
- What technologies do students consider important for learning?
- What degree of competency do students perceive they have in using