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Building a better "geekness" measure for the world of tomorrow

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Abstract

Computers are increasingly prevalent in everyday life with development of constantly evolving new designs to benefit the "average person". These advances have resulted in diverse ways of measuring a person's level of computer experience, compared to the relatively simple measures of yesteryear. This diverseness however also brings a dilution of validity. Comparisons of the use of multiple measures resulted in significantly different findings in Tan and Richardson (2005), giving rise to questions about the suitability of each measure. This study identifies current measures from literature and explores the suitability of each measure, then initiates the development of a unified computer experience measure.

Keywords

computer, experience, self-efficacy, anxiety, measures

INTRODUCTION

Computing hardware has existed in one form or another for over 37,000 years, from the Lebombo bone (oldest known tally stick) unearthed in Swaziland (Bogoshi et al. 1987), to the computers you see advertised in the daily newspaper of today. Regardless of form, the common characteristic that all these devices had was that they are a tool to be wielded in a manner the user sees fit. An *experienced* user may appear to work mathematical miracles with the device to a novice or the uninitiated, but barely raise an eyebrow when the audience has an equivalent or superior specific knowledge of the process and inner workings. This disparity of *computer experience* (or lack of it) has been found to be influential in explaining the differences for physical arousal (Beckers and Schmidt 2003), confidence (van Braak 2004) and acceptance of technology (Taylor and Todd 1995).

The problem with experience is that the word itself does not quantify the level and type. Experience can be gained from a series of exposure to an event or involvement in a process which results in knowledge and/or skills being developed. Alternatively, a single brief moment can also result in experience, with the length of time not being a deciding factor on a person's ability to derive value from such a momentary experience (Anderson 2005). When a person develops high levels of *a posteriori* (empirical) knowledge from their experiences, words such as expert or professional are used to signify a level of competency beyond that of the average lay-person. As each person is unique, the resulting understanding gained from experience is unique as well (all other factors being the same). This in turn leads to experts having different knowledge within their knowledge domain, so any measure of experience either has to measure such knowledge to a very specific degree or attempt to provide an overall general measure based upon common characteristics that define what one needs to be an expert in the field being studied. The generalization of that measure brings added risk as its validity is further weakened by application across an environment where it was not originally intended to be used.

The purpose of this paper is to examine the myriad of different computer experience measures by testing the relationship between each of them and computer self-efficacy and computer anxiety to assess the suitability of each measure. Many researchers have found computer experience to consistently correlate with computer anxiety (Mcilroy et al. 2005, Bozinelos 2004, Wifong 2004, Chua et al. 1999) and computer self-efficacy (Mcilroy et al. 2005, Barbeite and Weiss 2004, Havelka 2003). Computer self-efficacy and computer anxiety have also been found to be consistently correlated as well (Mcilroy et al. 2005, Wilfong 2004, Durndell 2002). Based upon these well established findings, the measures in this paper are statistically analysed to determine the relationship of each computer experience measure with computer self-efficacy and computer anxiety. This is intended to highlight how different measures for something often considered the same determinant can lead to differing conclusions when used. As such, the suitability of certain measures could and should be questioned for future studies. Finally, preliminary ground work into the development of more accurate factor-based computer experience measures, customizable across different scenarios, is discussed.

COMPUTER EXPERIENCE

In the interest of brevity (and sanity) within this paper, the term *computer* in computer experience will hence forth refer to the electronic general-purpose personal microcomputers mass-produced since (and including) the Apple II in 1977. This separation of the home computing domain provides a distinction for computer experience which does not revolve around being able to program a computer in order to use it. Early computer experience measures used a person's programming ability to provide a benchmark upon which to compare their experience levels to someone else (Campbell and Williams 1990). As identified by van Braak (2004), such a comparison was appropriate when the task of using a computer went hand in hand with the task of programming it as well, but with the shift towards general purpose computers and off the shelf software, comparison by such methods is no longer justifiable (unless the study is measuring programmer's computer programming experience). Therefore, this measure that served researchers well in the past is best constrained to the computer science/IT discipline where programming still forms a central part of study or the workplace, and not part of the studies within this paper. Table 1 shows the commonly used computer experience measures in recent years.

Study	Measure description	Purpose of Measure(s)
Fan and Li (2005)	1) Number of programming courses taken 2) Number of computer courses taken	Study was administered to computer science students to determine whether gender differences existed by specifically asking questions about programming related course content.
Havelka (2003)	1) Number of years of computer use 2) Number of computer courses taken 3) Number of application software packages or computer languages learned	To investigate demographic predictors of software self-efficacy in undergraduate business students.
van Braak (2004)	1) Individuals' experience of computing, expressed in time (months) 2) Intensity of computer use (hours per week)	First aim was to develop self-perceived computer competence instrument and assess differences amongst first-year undergraduates. Secondly, to use this instrument to identify possible determinants of self-perceived computer competence and test the impact at the individual level.
Wilfong (2004)	Participant expertise in the specific domains of word processing, spreadsheet, programming, operating systems, familiarity, graphical editing software, gaming and Internet browser familiarity, were rated on a 5-point mastery scale (0 – no experience… 4 – expert experience)	To test the relationship of computer use, computer experience and self-efficacy beliefs as predictors for computer anxiety and anger symptoms, using undergraduate students.

Table 1: Literature review of computer experience measures

IS researchers in academia are often aligned with the business or IT faculties, with standalone degree structures and/or providing support courses within other degrees. The participants within this study are commerce students, such that measuring programming ability would only be suitable for the small percentage of IT students taking electives in the commerce faculty. There are however IS students within the faculty as the IS group is aligned with the business school, so a measure of "number of computer courses taken" is still appropriate. This measure is the first of eight examined.

The second measure is the length of time that a "person has been using computers". It is argued that a person who has clocked up more hours in front of a computer would have a higher level of experience. Once again, this measure is task specific; a cartographer who uses a GIS (Geographical Information Systems) application 40 hours a week for the last 10 years will not necessarily be able to generate a balance sheet quicker than a 3rd year accounting student with only a few months practical experience of an accounting software (and vice versa). Within each of their knowledge domains, length of time may be appropriate, but across discipline boundaries, any generalizations are problematic due to different learning ability, innate cognitive ability and environmental variables (eg. operating system, specific application used, support available, and freedom of interaction).

This leads to the third measure investigated in this study; the checklist of common applications regularly used which compares the number of applications used to assess the level of computer experience. However, in prior studies, items in the checklist were not weighted. For example, a person who regularly uses Microsoft spreadsheet, word processor and email applications (eg. receptionist) is considered to have as much computer experience as someone who uses Unix programming tools, system tools and database applications (eg. systems administrator). If the study was focusing on the usability of integrated Microsoft Office suite products within Windows XP, then comparison would be skewed due to the environment being biased towards the receptionist. Limiting the checklist to a select few applications specific to the study may alleviate some of these issues, but a software developer who has programmed computers in Visual Basic for 10 years could still have a high, yet different, understanding of usability issues on a Microsoft platform, even if they don't regularly use any of those applications listed.

Frequency of use, sometimes referred to as intensity of use, is the fourth measure. This measure distinguishes between someone who uses a computer for only a few minutes a day over a given period, from someone who uses a computer for hours a day over the same period. All things being equal, a person with a higher level of intensity would be expected to be more experienced due to increased exposure. Still, this measure suffers from the problem of users not being equal; someone with an already high level of experience might only need a few minutes of repeated exposure to computer usage to maintain that level. The novice user however, would likely need the hours of exposure daily to slowly/gradually/quickly (task dependent) gain a similar level of experience, until the level starts to plateau.

All the aforementioned measures rely upon a level of understanding of individual characteristics which may not (and probably not) be feasible in many situations. Even if the chosen measure(s) for experience may be suitable to some degree, the degree of matching does not guarantee corroboration of findings across multiple tests. To address this issue, the study will develop and investigate a further four measures; 5) Average computer use daily for work/study, 6) Average computer use daily for games/entertainment, 7) Intensity of daily computer use and 8) Number of computer dependent devices owned

The sample in this study consists of university students, most, if not all, would use computer(s) daily for both study and entertainment. Therefore, the frequency of computer use measure could be better defined to capture information about daily computer use for work/study activities (involuntary use) and games/entertainment (voluntary use). These two forms of usage are also combined into one single measure of "intensity of daily computer use" to represent total usage over a 24hr period.

Lastly, the number of computer dependent devices owned is used as a proxy for computer experience on the basis that computers are becoming a necessity for the adoption of other forms of electronic devices. Game consoles are increasingly become more computer-like, with Playstation2 having Linux as an option and the Xbox being a custom x86 desktop computer in a small form factor running a stripped down Windows 2000 kernel. The next generation of consoles are being touted to herald in the era of home entertainment consoles which further blur the distinction between general purpose computer and entertainment specific platforms. MP3 players require a source of suitable audio files, most commonly by connection to a computer for the conversion of CD music or downloaded from commercial and free sources. Mobile phones and PDAs (Personal Digital Assistant) are similar in that their functionality and usefulness are enhanced through the ability to connect to a PC for the transfer of data. Through interacting with these devices, it is expected that the user would become familiar with capabilities and applications not covered by other measures.

COMPUTER SELF-EFFICACY AND COMPUTER ANXIETY

Perceived self-efficacy is a person's beliefs about their capabilities to exert influence over events that affect them. It determines how people feel, think, motivate themselves and behave (Bandura 1986, 1994). This long studied construct in psychology when used in IS research is referred to as computer self-efficacy (CSE), which is the belief that a person has in their capability to use a computer (Compeau and Higgins 1995). In the study by Compeau and Higgins (1995), they found computer self-efficacy to "*exert a significant influence on individuals' expectations of the outcomes of using computers, their emotional reactions to computers (affect and anxiety), as well as their actual computer use*". Numerous studies have found a person's level of confidence (or lack thereof) to correlate positively with their level of computer experience (Mcilroy et al. 2005, Barbeite and Weiss 2004, Havelka 2003) meaning those with more experience are more confident with using computers.

Computer anxiety is sometimes referred to as the emotional fear a person feels when using a computer or when there is a possibility of needing to use one (Chua et al. 1999). Other words also used when describing emotions relating to computer anxiety is an aversion to, aggression towards, and intimidation by computers (Beckers and Schmidt 2001). Havelka (2003) noted that computer anxiety has been found to relate to users' general perceptions about computer use and have significant impacts on behaviour, learning, attitudes, intention and performance. Many researchers have found computer experience to consistently correlate negatively with computer anxiety (Mcilroy et al. 2005, Bozinelos 2004, Wifong 2004, Chua et al. 1999) as with experience, the negative feeling associated with the high anxiety lessens.

In addition to these relationships, computer self-efficacy and computer anxiety have also been found to be consistently negatively correlated (Mcilroy et al. 2005, Wilfong 2004, Durndell 2002). It should be noted that these papers cited are but a small portion of the many studies that have found similar relationships between computer experience, computer self-efficacy and computer anxiety.

HYPOTHESES

Past research has shown CSE, computer anxiety and computer experience to all be correlated; self-efficacy and experience positively with each other and both negatively with anxiety. Due to this study being a replication of past research, but with a focus on differences in results when using *multiple* experience measures, the hypotheses are expected to concur with previous findings. Results are shown from two separate studies, with similar contexts, to provide corroborative support of findings.

Prior studies (Bozinelos 2004, Havelka 2003) found that the number of computer courses studied significantly relate to experience, self-efficacy and anxiety. The rationale for this is that a person who studies and learns more about computers, and how to operate them, would have more experience with computers. A similar argument applies to self-efficacy in that choosing to study computer courses implies confidence in one’s ability to control a computer and a lower level of anxiety about having to use one. Even if a participant was induced to study computer related courses as a compulsory requirement, this exposure would have similar effects within a learning environment that supports a gradual and mediated learning process.

Formal education is not a sole requirement to becoming experienced with using a computer. Advances in computer technology and its usability resulted in the modern personal computer being usable straight out of the box and with easily accessible support systems (phone, manuals, online help, product guides, etc) for the first-time user to become accustomed with its usage. Generally, the longer a person is exposed to a computer, it is expected their experience and self efficacy increases, while anxiety decreases (Barbeite and Weiss 2004, van Braak 2004, Havelka 2003).

The modern personal computer is categorised as being general purpose due to its ability to provide different functionality through the use of different applications. However, not all applications are written to the same standards or require a similar level of task specific knowledge. The more applications a person learns to use, the wider range of interfaces, devices and abilities the person is exposed to. This exposure is leads to an increased overall understanding of computers and confidence, resulting in a decrease in anxiety (van Braak 2004, Wilfong 2004, Havelka 2003).

Even though computers are pervasive and part of everyday life, we are not always acutely aware of their presence or actively using one. Someone who uses a computer once every few days to check their email would be expected to have lower levels of general computer experience than someone who uses a computer multiple times per day to check their email. The difference might not be large, but this tendency to persistently use a computer multiple times a day for a relatively familiar task has shown to result in increased self-efficacy and reduced anxiety. This same rationale applies to the three daily computer use measures (van Braak 2004).

As with many IT education methods, computer experience does not necessarily mandate sitting in front of a computer as part of the learning experience. With ubiquitous computing comes an everyday environment where human-computer interaction has become a sub-conscious norm. By using the number of computer related devices as a proxy for computer experience, we can measure the effects of exposure to varying forms of computer technology that should lead to a decrease in anxiety and increase in self-efficacy.

Rather than list a multitude of individual hypotheses, Figure 1 is a diagrammatic model of the expected relationships that will be exhibited for the correlations between computer experience, computer self-efficacy and computer anxiety.

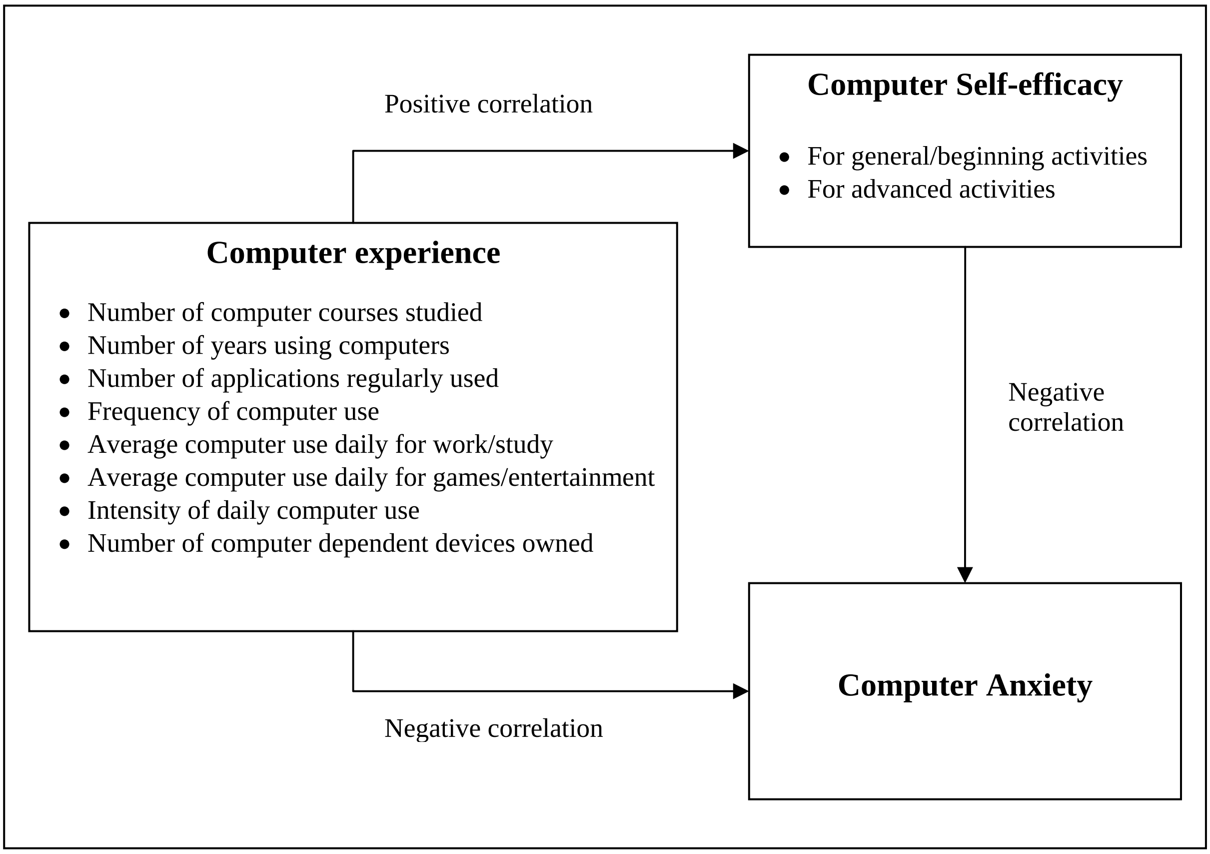

Figure 1: Depiction of Expected Relationships between Different Measures of Computer Experience with Computer Self-Efficacy and Computer Anxiety.

METHOD

Participants

Case #1

A survey was administered to students during tutorials in a first-year accounting course. Of the 157 surveys returned, 150 had fully completed computer experience and self efficacy measures. Within this sample there were 67 females, 82 males and 1 non-response. The age range was from 16 to 32 with a median age of 19 years old. There were 61 Bachelor of Commerce students, 53 undertaking a combined double degree with Commerce and the remainder being a mix of Actuarial Studies (9), Finance (2), International Business (5), Science (2), Economics (2) and "Other" (16).

Case #2

A derivative of the Case #1 survey with the same demographic, experience, self-efficacy and anxiety measures was administered to students at the start of a lecture in a different first-year accounting course. There were 51 surveys returned, 50 of which were sufficiently completed. The respondents consisted of 26 females and 24 males, with ages ranging from 19 to 24 years ($M = 20$, $SD = 3.749$). Within the sample of 13 degree structures, there were 31 Bachelor of Commerce students and 11 other students doing a combined double degree with Commerce. The remainder were a mix of IS (1), Finance (1), Actuarial Studies (3) and the 3 IT students from another faculty.

Measures and procedure

Case #1

Participants were asked to complete a 4 page (A4 size) survey at the commencement of their weekly accounting tutorial near the end of first semester in 2004. Time to complete the survey was approximately 15 minutes. These physical forms were then collected and later entered into a SPSS data file for future statistical analysis.

The survey the participants completed consisted of 5 sections, not all of which are relevant to this study. The first section asked demographic information; gender, age and course enrolled in. The second section contained the measures for computer experience; years using computers, computer courses studied, frequency of computer use, average daily use for work/study and games/entertainment, computer dependent devices, and applications regularly used. The last part of this section had the "New Computer Anxiety and Self-efficacy Scales" measure for computer self-efficacy and anxiety from Barbeite and Weiss (2004). The experience, self-efficacy and anxiety measures are included in the appendix.

Case #2

The 4 page survey the participants were asked to complete shared the same measures as the survey in Case #1. It was administered at the start of the lecture in the last week of teaching for an advanced accounting course in mid 2005. Completion time was approximately 15 minutes. As before, demographic measures were first, followed by a second section containing the computer experience measures and reordered computer self-efficacy/anxiety scale questions. The self-efficacy and anxiety questions were randomly reordered in order to detect participants simply following a pattern rather than full comprehending each question. No aberrant behaviour was found.

Results

As expected, both CSE measures are highly negatively correlated with anxiety which supports the view that as a person becomes more confident with using computers, their anxiety levels reduce accordingly. Surprisingly the CSE measures are only significantly correlated with each other in the first study. Looking at each computer experience measure, it appears that CSE for advanced activities (CSEADV) is consistently correlated across both studies, whereas CSE for general/beginning activities (CSEBEG) and anxiety using computers (ANXUSE) are divided.

	Computer Self Efficacy for general/beginning activities (CSEBEG)		Computer Self Efficacy for advanced activities (CSEADV)		Anxiety using computers (ANXUSE)	
	Study #1	Study #2	Study #1	Study #2	Study #1	Study #2
Computer Self Efficacy for general/beginning activities	1	1				
Computer Self Efficacy for advanced activities	.422(**)	.236	1	1		
Anxiety using computers	-.715(**)	-.487(**)	-.524(**)	-.508(**)	1	1
Number of computer courses studied	.016	.055	.237(**)	.529(**)	-.135	-.203
Number of years using computers	.301(**)	.345(*)	.289(**)	.525(**)	-.338(**)	-.250
Number of applications regularly used	.259(**)	.167	.283(**)	.323(*)	-.346(**)	-.189
Frequency of computer use	.288(**)	-.049	.347(**)	.350(*)	-.400(**)	-.253
Average computer use daily for work/study	.034	.066	.143	.320(*)	-.188(*)	-.353(*)
Average computer use daily for games/entertainment	-.053	.379(**)	.215(**)	.353(*)	-.057	-.394(**)
Intensity of daily computer use	-.017	.310(*)	.246(**)	.410(**)	-.160	-.457(**)
Number of computer dependent devices owned	-.040	.343(*)	.256(**)	.298(*)	-.044	-.387(**)

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 2: Combined correlation matrix

The number of computer courses studied was not significantly correlated with CSEBEG or ANXUSE in either study, though it was with CSEADV. This would appear to point towards formal education in computing courses being more beneficial for increasing self-confidence in activities beyond simply using a computer for tasks that the user feels a desire to understand. We would surmise that this may show a difference between the concepts of *using* computer functions and *understanding* how a computer functions.

Of the seven remaining measures, it is interesting to note both the consistencies and inconsistencies with the correlations. The first three of those seven measures (number of years using computers, number of applications regularly used and frequency of computer use) are all significantly correlated with CSEBEG, CSEADV and ANXUSE in study #1 but only with CSEADV in study #2. Conversely, the last three (average daily use for games/entertainment, intensity of daily computer use and number of computer dependent devices owned) has significant correlations with CSEBEG, CSEADV and ANXUSE in study #2 but only CSEADV in study #1. The average computer use daily for work/study wasn't correlated with CSEBEG in either study, and only slightly correlated with CSEADV in study #2 and ANXUSE in both studies.

As a result of the pattern that appears to exist with the correlation of computer experience measures, a factorial analysis was performed on each measure to determine whether they load onto one or multiple factors. Depending upon the interpretation of the results, at least two and possibly three 3 factors were identified. However due to colinearity between variables and one factor (two depending on interpretation) having only 2 variables loaded upon it, the factor analysis findings are not justifiable, though certainly worthy of further investigation.

DISCUSSION AND CONCLUSION

By separating self-efficacy into two categories, one concerning confidence with basic computer functions (eg. opening a data file to be viewed) and the other covering more advanced technical concepts (eg. fixing computer problems), a difference in correlations with computer experience was found. Almost all the experience measures were significantly correlated with CSEADV. Unfortunately, making a judgement on CSEBEG and ANXUSE is less clear cut due to the differences in results between the two studies. In the first study, only three of the four measures from extant literature were significantly correlated with CSEBEG and ANXUSE. However, in the second study the newer measures proposed in this study were the ones correlated with CSEBEG and ANXUSE. This discrepancy raises questions about why such a difference occurred. This conundrum is further exacerbated by the two self-efficacy measure not being correlated in the second study, which contradicts expectations.

The separation of a self-efficacy measure into both beginning (CSEBEG) and advanced (CSEADV) activities by Barbeite and Weiss (2004) allows for an interesting insight into how computer experience measures may capture information related to either or both of the measures for self-efficacy. The consistent correlation with CSEADV in both studies may possibly be due to the participants' exposure to beginning activities being the "norm" and it is the advanced activities that are perhaps more influential in gauging the level of confidence using computers.

At the very least, this study shows that the choice of a computer experience measure should not be an arbitrary decision. We surmise that the context of each study would greatly influence such a choice and without repetition, the validity of the findings should be questioned and the choice not generalised to other studies.

LIMITATIONS AND FURTHER RESEARCH

Care was taken to ensure participants filled in the forms correctly by reading each question before answering. The survey in Study #1 had self-efficacy and anxiety questions in the default order for the measures, but was randomly reordered in Study #2 to further ensure it was possible to detect participants "guessing". Though there were no instances of aberrant responses, this reordering of questions may explain some differences between the two studies. In a future study, the order of questions in Study #2 will be used again with a larger sample to verify whether this explains those differences. Regardless of the influence this may have had, the results show that not all computer experience measures are created equal.

There was also a significant differences in computer self-efficacy between local and international students (local students had lower levels of CSEADV) and anxiety between male and female students (female students had higher anxiety levels). However, this is not included in the scope of this study. While higher confidence in international students may not be of immediate interest, studies have argued such gender differences should not exist anymore, so these findings are worthy of a closer look in a more detailed examination with a gender focus.

As intended, this paper reveals more questions than answers. Raising such questions is pertinent when one considers the past practices of choosing a particular computer experience measure without thought to ramifications of the choice made. The findings show that not all experience measures are created equal. Preliminary factor analysis showed at least two to three factors for each study, but due to the low number of variables loading onto each factor; it would be hasty to draw conclusions. Therefore we propose that a more thorough review of the literature is performed to draw out all the possible experience measures, with special attention being paid to how precise the measure is. From this pool of existing measures, new measures can be proposed to create a multi-faceted instrument, customizable for use across multiple studies with differing circumstances. With this, statistically reliable factor analysis can be performed in order to create a more comprehensive measure of computer experience for a given situation. As part of this process, it would also be pertinent to validate findings across multiple self-efficacy and anxiety measures other than just the one used in this study. This validation should also consider the use of computer experience in other studies other than those pertaining to self-efficacy and anxiety.

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APPENDIX

Experience measures

How many computing courses have you studied? ______ courses

How many years have you used computers? ______ years

Which of the following types of computer applications do you regularly use? (Tick ☑ all that apply).

☐ Email (eg. Outlook) ☐ Internet Browser (eg. IE, Netscape) ☐ Word Processor
☐ Games ☐ Statistical Analysis (eg. SPSS) ☐ Programming

☐ Graphics ☐ Database (eg. MS Access) ☐ Spreadsheet
☐ Library Catalogue ☐ System Tools (eg. Defrag) ☐ IM Chat

On average, how frequently do you use a computer? (Tick ☑ one)
☐ Less than once a month ☐ Once a month ☐ A few times a month
☐ A few times a week ☐ Once a day ☐ Several times a day

On average, how much time per day do you use a computer for study and/or work? (Tick ☑ one)
☐ Almost never ☐ Less than 30 minutes ☐ Between 30 minutes to 1 hour
☐ 1-2 hours ☐ 2-3 hours ☐ More than 3 hours

On average, how much time per day do you use a computer for games/entertainment? (Tick ☑ one)
☐ Almost never ☐ Less than 30 minutes ☐ Between 30 minutes to 1 hour
☐ 1-2 hours ☐ 2-3 hours ☐ More than 3 hours

Which of the following devices do you have? (Tick ☑ all that apply)
☐ XBOX/PS2/Gamecube ☐ Ipod/MP3 Player
☐ Mobile phone connected to PC ☐ PDA

Computer Self-efficacy and anxiety measures

Please circle the number that best represents your agreement with each of the following statements about normal computer use.

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
I feel confident making selections from an on-screen menu **[CSEBEG]**	1	2	3	4	5
I feel confident using the computer to write a letter or essay **[CSEBEG]**	1	2	3	4	5
I feel confident exiting from a software program **[CSEBEG]**	1	2	3	4	5
I feel confident opening a data file to view on the screen **[CSEBEG]**	1	2	3	4	5
I feel confident fixing computer problems **[CSEADV]**	1	2	3	4	5
I feel confident understanding terms/words relating to computer hardware **[CSEADV]**	1	2	3	4	5
I feel confident explaining why a program will or will not run on a given computer **[CSEADV]**	1	2	3	4	5
I feel confident creating a webpage **[CSEADV]**	1	2	3	4	5
Working with a computer would make me very nervous **[ANXUSE]**	1	2	3	4	5
I get worried when I think of trying to use a computer **[ANXUSE]**	1	2	3	4	5
Computers make me feel uncomfortable **[ANXUSE]**	1	2	3	4	5
Computers make me feel confused **[ANXUSE]**	1	2	3	4	5

NOTE: Text appearing within [ ] brackets does not appear on the survey administered to participants

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