World Applied Sciences Journal 21 (Special Issue of Studies in Language Teaching and Learning): 12-18, 2013
ISSN 1818-4952

DOI: 10.5829/idosi.wasj.2013.21.sltl.2132

Public Speaking Anxiety in Podcast Aided Language Classes

[1]Ainol Haryati Ibrahim and [2]Nuraihan Mat Daud

[1]Center for Modern Languages and Human Sciences,
University Pahang Malaysia, Kuantan, Pahang, Malaysia
[2] Kulliyyah of Languages and Management,
International Islamic University Malaysia, Kuala Lumpur, Malaysia

Abstract: This paper presents a study on learners' level of anxiety when a podcast was used in developing their public speaking skills. This study employs a quasi-experimental, pretest-posttest nonequivalent control group design where the control group was taught using the traditional method whilst a podcast was used as a teaching aid on the treatment group. The podcast makes it possible for the learners to have an authentic audience for their speaking activities. This study was thus conducted to see what would be the effect of using this facility on the learners. Richmond and McCroskey's (1998) *Personal Report of Public Speaking Anxiety* (PRPSA) was the instrument used to measure the language learners' level of anxiety. The study found that there was no significant difference between the control and the treatment groups. A reduction in the level of anxiety was observed in all groups.

Key words: Public Speaking Skills · Anxiety · Podcast · Experimental

INTRODUCTION

Anxiety, associated with feelings of uneasiness, frustration and apprehension, plays an important affective role in second language learning. [1] claims that studies have found that anxiety is related to language performance, that is, as anxiety increases, language performance deteriorates. Research has also shown that speakers experience higher levels of apprehension when using a non-native language compared to when speaking in their native language [2, 3]. [4], for example, found that there was a significantly negative relationship between second language speaking anxiety and oral performance when a study was conducted on an advanced English for academic purposes (EAP) students. One way a language instructor could assist learners in managing anxiety in second language speaking is by providing opportunities for practice through task repetitions or rehearsals [5, 6]. However, performing a task in front of the class can be stressful to a learner. Nonetheless, in order to improve their proficiency, the practice sessions need to be as authentic as possible [7]. [8] stress that practicing before an audience is more effective than practice methods that do not involve audience. This study, thus examines the effects of podcasting when used as a tool to provide authentic practice to second language learners.

Podcast in Education: Podcasts are digital audio programs that can be subscribed to and downloaded by listeners via Really Simple Syndication (RSS). RSS feeds enable learning objects such as podcasts to be transferred to mobile devices like an iPod, or downloaded onto a computer [9]. These RSS files are created by content publishers and then delivered to people who have subscribed to that feed [10]. In other words, RSS technology allows podcast contents to be syndicated instantly on the World Wide Web for download and use by anyone who is interested [11].

Although most applications of podcasting in educational settings have involved dissemination of recorded lectures and discussions, students could also create audio projects to share with fellow students and eventually with the instructor. Podcasting could also be an effective tool for practice or rehearsal, in a public speaking classroom, providing students with the opportunities to review their speeches and also to

Corresponding Author: Ainol Haryati Ibrahim, Centre for Modern Languages and Human Sciences,
Universiti Pahang Malaysia. E-mail: ainol@ump.edu.my.

broadcast their speeches to a broader range of audience. Thus the speech preparation process becomes more real, in comparison to the process of preparing speeches to be delivered in the classroom, with only peers and the instructor as the "audience". In other words, podcasting enables the learners to have realistic practice sessions, as recommended by the experts [7].

Statement of the Problem: Numerous studies have investigated communication apprehension in general. Specific focus has been given to public speaking anxiety and the associated treatment methods [12-14]. Other studies also include apprehension in accounting students [15-17], apprehension among medical students [18] and a multinational perspective of communication apprehension among salespersons [19]. In the context of a changing academic environment, [20] examined how communication apprehension affected students' desire to enroll in an online class.

The earlier studies mentioned above have mostly focused on the apprehension level and in some, on ways to reduce it. More recently, however, researchers have started to compare different approaches in method of instruction for a public speaking course and the subsequent impacts on anxiety level and speech performance [21-23]. Nevertheless, little has been done to study the impact of technological tools in reducing public speaking anxiety. Rapid technological advancements, particularly the proliferation of information and communication technology (ICT), makes it imperative to examine how a web-based tool, specifically, podcasting, affects students' level of public speaking anxiety. This study aims to explore the impact of podcasting on the students' level of anxiety.

Objective of the Study: The objective of this study is to investigate the effects of podcasting on students' level of anxiety.

MATERIALS AND METHODS

This study employed the quasi-experimental, pre-test post-test nonequivalent control group design. The subjects comprised third year students of a public university in Malaysia. A total of eighty-two students participated in this study. These students were enrolled in a fourth level English language and communication course. Three groups of students were involved, with two groups subjected to experimental treatment and one assigned as the control group. There were twenty-six students in Experimental Group 1, thirty students in Experimental Group 2 and twenty-six students in the Control Group.

The course proceeded as per stipulated weekly schedule in the course outline. All input materials used were the same for both the control and experimental groups. Nevertheless, the mode of delivery was different. For the control group, classes were conducted face-to-face, with the instructor giving input via lectures and facilitating the students' work in class. On the other hand, face-to-face and online approaches, specifically podcasting, were used with students in the experimental group.

The students were given pre- and post-Personal Report of Public Speaking Anxiety (PRPSA) [24], to determine changes in their anxiety level. This is a widely used instrument to measure anxiety in a public speaking context. The alpha reliability for the PRPSA is 0.94 [25]. The alpha reliability of the instrument calculated for this study is 0.90.

A background questionnaire was also given to those in the experimental groups, to obtain demographic data and information pertaining to their podcasting activities.

Podcasting in this Study: There are numerous ways to publish a podcast. However, to simplify the process of publishing the podcast, a social network portal, Multiply, was utilized. This portal has automatic support for enclosures like MP3 and other types of files. When the MP3 file is uploaded to the Multiply site, the file becomes automatically available for those who have subscribed to the site because the built-in RSS will automatically generate the feeds [11, 26].

Before posting the podcast, one needs to register for a personal Multiply website, at http://multiply.com/ user/ join/:

Multiply provides an effortless way to share all kinds of digital media on one's own personal website. The site is organized into several sections, which allows one to publish a blog, post digital photos, videos and audio files, schedule events in the calendar and share links on topics of interests. The owner could control access to each section, where he or she could blog for the whole world to read, share photos and videos with his or her network of contacts. This site could be subscribed to, by clicking on the RSS icon on the homepage of the website. Thus, audio files in MP3 format which are posted onto a Multiply website would automatically be downloaded

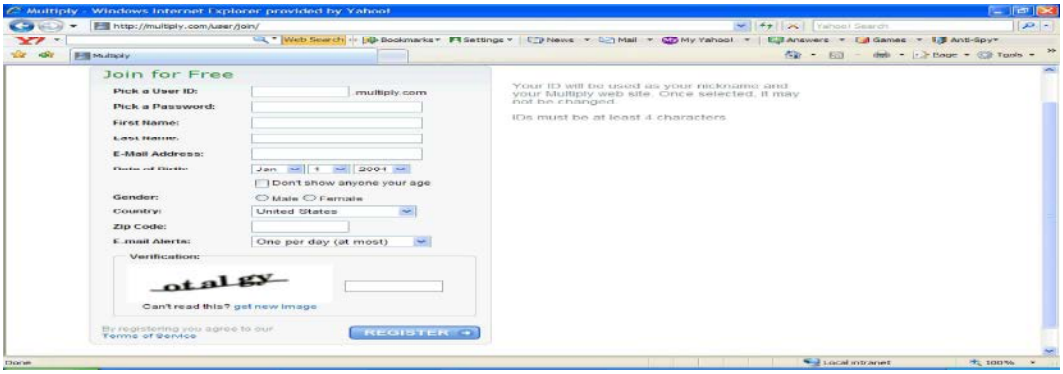

Fig. 1: Registration Page for a Multiply Site

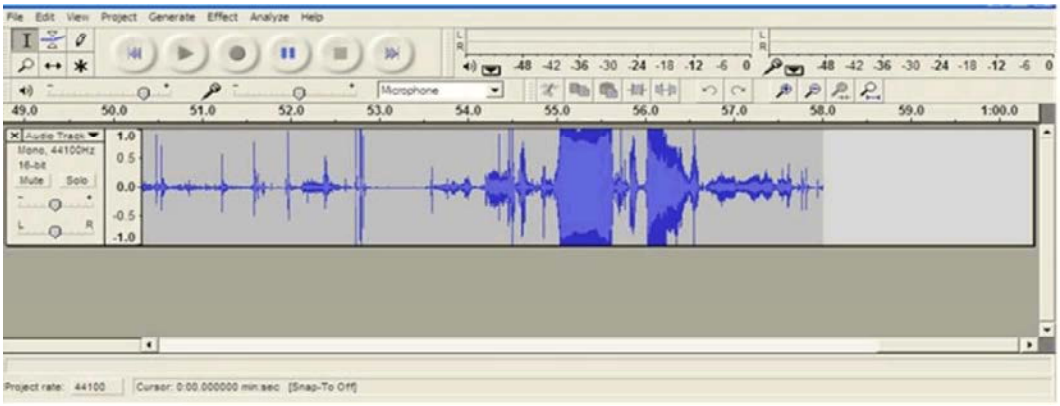

Fig. 2: Screenshot of Audacity

onto a personal computer (or any other device) which subscribed to the site. In other words, audio files on a Multiply site are podcasts because the built-in RSS allows for automatic downloading [11, 26].

A digital recorder is needed to create a podcast. Audacity is the program of choice for many podcasters [11, 22]. It is a sound-editing software that can also be used as a digital recorder. It is a powerful and easy-to-use programme to record podcasts (with an attached microphone that usually comes with the computer) or to edit existing audio files. Audacity, a freeware, is runs on Mac, Windows and Linux operating systems and can be downloaded from http://audacity.sourceforge.net/. For the purpose of this study, students in the experimental group were trained to use Audacity to record their speeches from the microphone attached to the headset of the desktop, then to save the recording in the computer's memory as digital audio. Figure 2 illustrates Audacity in action:

Audio files in Audacity could be exported in MP3 format, using LAME encoder. It is a free software application used to encode audio into the MP3 file format, available at http://lame.sourceforge.net/index.php. Because of patent considerations, it is not distributed by Audacity in a ready-compiled encoder. It would have to be downloaded before it can be used for this purpose. Subsequently, in the process of exporting the MP3 file, Audacity will be directed to its location on the hard drive in order to activate the encoder. MP3 was chosen for this study for audio storage because in this format, audio files can be made smaller through data compression. The compressed files are easier to exchange in a limited bandwidth environment such as the Internet and easier to store in a limited data space environment, such as a hard drive [27]. The MP3 format allows for easy exchange of files by the widest range of listeners because it is also designed for maximum compatibility across platforms [11, 28].

RESULTS

The *Personal Report of Public Speaking Anxiety* [24] was administered to all the students in the experimental groups and the control group at the beginning of the module and upon completion of the module. The alpha reliability of the instrument calculated

Table 1: K-W One-Way ANOVA on Anxiety Level

GROUP	N	Mean Rank	Chi-Square	df	p
CONTROL	26	35.87	2.168	2	0.338
EXPERIMENTAL 1	26	43.48			
EXPERIMENTAL 2	30	44.67			

Significant at $p \leq 0.05$

Table 2: Anxiety Level within Similar Groups

GROUP	N		Mean Rank	Z	p
EXPERIMENTAL 1	Negative Ranks	21	15.81		
	Positive Ranks	5	3.80		
	Ties	0			
	Total	26		-3.976[a]	0.000
EXPERIMENTAL 2	Negative Ranks	28	16.14		
	Positive Ranks	2	6.50		
	Ties	0			
	Total	30		-4.515[a]	0.000
CONTROL	Negative Ranks	20	12.40		
	Positive Ranks	3	9.33		
	Ties	3			
	Total	26		-3.348[a]	0.001

a. Based on positive ranks

Negative Ranks: post < pre

Positive Ranks: post > pre

Ties: post = pre

Significant at $p \leq 0.05$

for this study was 0.90. It can therefore, be construed that the PRPSA is a reliable instrument to measure anxiety level in public speaking.

An analysis was carried out using Kruskal-Wallis One-Way ANOVA to determine any significant difference on the onset of the study in terms of anxiety level (Table 1).

The results show that there was no significant difference among the three groups. The mean rank for Control group was 35.87. For Experimental 1 (EG1) and Experimental 2, the mean rank was 43.48 and 44.67, respectively (Chi-square=2.168, p=0.338). Thus, it can be assumed that all three groups are homogeneous since the difference among the groups was not significant (significant at $p \leq 0.05$). These results are to be expected since all the students have proceeded through the same academic curriculum since registering at the university. Thus at the start of the study, there was no statistically significant difference in anxiety level among the three groups.

Public Speaking Anxiety Level Within Groups: A Wilcoxon test was conducted to evaluate whether there was a reduction in the students' level of public speaking anxiety. Table 2 illustrates the results of this test.

The value of the mean rank for negative ranks were obtained when the post-test was less than the pre-test and the mean rank value for positive rank was obtained when the value of post-test was more than the pre-test. Ties occurred when the value for both the pre- and post-tests were the same. The results indicated a significant difference between pre- and post-tests for Experimental Group 1(EG1) where the mean rank for negative ranks was 15.81 and the mean rank for positive ranks was 3.80 (z=-3.976, p=0.000). Thus for EG1, it could be concluded that the anxiety level of twenty-one students was reduced (because their post-test was less than their pre-test), whereas five students experienced an increased level of anxiety at the end of the treatment. Some of the students commented in their blogs on the Multiply site that they felt nervous when speaking in front of other people. One student, EG1S4 wrote:

> *I feel nervous went speak in front of people until I forgot my point. Maybe in formal situation I am so nervous. I really have no idea to control my nervous.*

Another student, EG1S5 explained at length her perception of her performance based on the video recording:

that is my very first speech. before this i never speak in public,alone! except for presentations in the class with my group members. for me, that is not quite intimidating ... i feel stupid and ugly at the same time..huuu....and also feeling that everybody is watching and criticize me....

One student, EG1S9, admitted to feeling nervous due to lack of preparation:

*I think i m quite nervous on that day because of the lack of preparation.....my sound also very monotone..i think my audience wont be attracted by my speech....i also noticed that i m very depending on my notes...reading rather than giving a speech... ^_^*

The interviews revealed that the students experienced less anxiety at the end of the module (post-test) because they believed that they had understood the steps in preparing the speech. In other words, they admitted to feeling more confident because they felt more prepared as they have had ample time to practice. Interestingly, when asked, those students whose anxiety level increased at post-test admitted that at the onset of the module (pre-test) they thought that they knew all there was to know about public speaking. At the end of the module, they realized that they still had so much to learn. This perceived lack of skills might have increased their anxiety level.

For Experimental Group 2 (EG2), the difference between pre and post-tests was also found to be significant, where the mean rank for negative ranks was 16.14 and the mean rank for positive ranks was 6.50 ($z=4.515$, $p=0.000$). In this treatment group, a reduction in anxiety level was observed in twenty-eight students, whereas an increase in anxiety level was detected in two students. Most of the students in this group admitted to being nervous due to inadequate preparation. A student, EG2S4, wrote about his reaction to his own performance in his blog:

when first time i see my speech, i think that it is funny.i laugh to myself.mmmm....i need to practice more in public speaking.i have a trouble in english..i just speak a broken english infront of the class.hope i can give a good performance in the next task.

Another one, EG2S3, commented on his lack of preparation:

well its a 2 days of preparation...what can i expect? hehe...there are many funny gesture im making, i need to wear properly, my voice not clear, a lot of bubling,....i need to prepare for my speech...

In the Control Group (CG), the mean rank for negative ranks was 12.40 and the mean rank for positive ranks was 9.33 ($z=-3.348$, $p=0.001$). Of the twenty-six students in the control group, only twenty showed a reduction in their level of anxiety, while another three experienced an increase in theirs. Another three students exhibited no change in their level of anxiety from pre- to post-tests. An interview with them revealed that the students were not sure how to prepare a speech, thus for the pre-test, they prepared based on what they knew and the skills they had. The students felt that the guidance given by the instructor helped them to improve their confidence.

Public Speaking Anxiety Level Between Groups: Mann-Whitney tests were performed to evaluate the difference in anxiety level between groups in both the pre-test and post-test. Table 3 summarizes the results.

Table 3: Anxiety Level between Groups

		PRE-TEST			POST-TEST		
GROUP	N	Mean Rank	Z	p	Mean Rank	Z	p
EXP1	26	28.54			31.04		
EXP2	30	28.47	-0.016	0.987	26.30	-1.085	0.278
CTRL	26	24.56			25.96		
EXP1	26	28.44	-0.925	0.355	27.04	-0.256	0.798
CTRL	26	24.81			30.00		
EXP2	30	31.70	-1.579	0.114	27.20	-0.641	0.521

Significant at $p \leq 0.05$

All three pairs compared in the pre-test did not show any significant difference among them, where for Experimental Group 1 (mean rank=28.54) and Experimental Group 2 (mean rank=28.47), the z score was 0.016 and p=0.987 For the Control Group (mean rank=24.56) and Experimental Group 1 (mean rank=28.44), the z score was -0.925 and p=0.355. For Control Group (mean rank=24.81) and Experimental Group 2 (mean rank=31.70), the z score was -1.579 and p=0.114. Comparisons of the post-tests revealed similar findings, where z=-1.085 and p=0.278 for Experimental Group 1 (mean rank=31.04) and Experimental Group 2 (mean rank=26.30); z=-0.256, p=0.798 for Control Group (mean rank=25.96) and Experimental Group 1 (mean rank=27.04); and z=0.641, p=0.521 for Control Group (mean rank=30.00) and Experimental Group 2 (mean rank=27.20).

It is evident that no significant difference existed between the groups at both pre and post-tests. The above also confirmed the Kruskal-Wallis One-Way ANOVA test results done to determine any significant difference at the beginning of the study.

CONCLUSION

The study shows that podcast can be used as a teaching aid in teaching public speaking skills to provide an authentic environment for practice. Students liked the idea of practicing in an authentic environment. When the control and the experimental groups were compared, no significant difference was observed in terms of their level of anxiety at the end of the study. However, a reduction in their level of anxiety was observed in all three groups. The practice that all the groups had and also the instruction given might have contributed to this. The learning outcome of the course which is for students to *"deliver an informative speech of between 5-6 minutes"* was achieved where public speaking was concerned. The experimental group had an edge over the control group in terms of the ICT skills that they gained.

REFERENCES

1. MacIntyre, P.D., 1999. Language anxiety: A review of the research for language teachers. In D.J. Young (ed.). Affect in foreign language and second language learning: a Practical Guide to Creating a Low-anxiety Classroom Atmosphere, pp: 24-45. Boston: McGraw-Hill.
2. Burroughs, N.F., V. Marie and J.C. McCroskey, 2003. Relationships of self-perceived communication competence and communication apprehension with willingness to communicate: a comparison with first and second languages in Micronesia. Communication Research Reports, 20(3): 230-239.
3. MacIntyre, P.D. and R.C. Gardner, 1991. Methods and results in the study of anxiety and language learning: A review of the literature. Language Learning, 41(1): 85-117.
4. Woodrow, L., 2006. Anxiety and speaking English as a second language. RELC Journal, 37(3): 308-328.
5. Bygate, M., 2001. Effects of task repetition on the structure and control of oral language. In M. Bygate, P. Skehan and M. Swain (eds.), Researching pedagogic tasks: second language learning, teaching and testing (pp: 23-48). London: Pearson.
6. Nunan, D., 1999. Second Language Learning and Teaching. Boston: Heinle and Heinle.
7. Sprague, J. and D. Stuart, 2005. The speaker's handbook (7th edn.). California: Wadsworth.
8. Smith, T.E. and A.B. Frymier, 2006. Get 'real': Does practicing speeches before an audience improve performance? Communication Quarterly, 54(1): 111-125.
9. Dale, C. and J.M. Pymm, 2009. Podagogy - the iPod as a learning technology. Active Learning in Higher Education, 10(1): 84-96.
10. Kaplan-Leiserson, E., 2004. RSS: A learning technology. Learning Circuits. Retrieved May 26, 2006. http://learningcircuits.org/2004/ may2004/ 0405_Trends.htm.
11. Farkas, B.G., 2006. Secrets of podcasting: Audio blogging for the masses. California: Peachpit.
12. Blood, G.W., I.M. Blood, G. Tellis and R. Gabel, 2001. Communication apprehension and self-perceived communication competence in adolescents who stutter. Journal of Fluency Disorders, 26: 161-178. Retrieved May 31, 2006, from Science Direct Database (http://www.sciencedirect.com.ezproxy.ump.edu.my/).
13. Garcia-Leal, C., A.C.B.V. Parente, C.M. Del-Ben, F.S. Guimaraes, A.C. Moreira, L.L.K. Elias and F.G. Graeff, 2005. Anxiety and salivary cortisol in symptomatic and nonsymptomatic panic patients and healthy volunteers performing simulated public speaking. Psychiatry Research, 133: 239-252. Retrieved May 26, 2006, from Science Direct Database (http://www.sciencedirect.com.ezproxy.ump.edu.my/).

14. Sawyer, C. and R. Behnke, 2002. Reduction in public speaking state anxiety during performance as a function of sensitization processes. Communication Quarterly, 50(1): 110-121. Retrieved May 28, 2006 from ProQuest Database (http://proquest.umi.com.ezproxy.ump.edu.my/).
15. Aly, I. and M. Islam, 2003. Audit of accounting program on oral communications apprehension: A comparative study among accounting students. Managerial Auditing Journal, 18(9): 751-760. Retrieved May 26, 2006, from Emerald Database (http://www.emeraldinsight.com.ezproxy.ump.edu.my/).
16. Hassall, T., J. Joyce, R. Ottewill, J. Arquero and J. Donoso, 2000. Communication apprehension in UK and Spanish business and accounting students. Education and Training, 42(2): 93-100. Retrieved May 26, 2006 from Emerald Database (http://www. emeraldinsight.com.ezproxy.ump.edu.my/).
17. Simons, K., M. Higgins and D. Lowe, 1995. A profile of communication apprehension in accounting majors: Implications for teaching and curriculum revision. Journal of Accounting Education, 13(2): 159-176. Retrieved May 14, 2006 from Science Direct Database (http://www.sciencedirect.com.ezproxy. ump.edu.my/).
18. Lang, N., P. Rowand-Morin and N. Coe, 1998. Identification of communication apprehension in medical students starting a surgery rotation. The American Journal of Surgery, 176: 41-45. Retrieved September 12, 2006 from ProQuest Database (http://proquest.umi.com.ezproxy.ump.edu.my/).
19. Pitt, L.F., P.R. Berthon and M.J. Jobson, 2000. Communication apprehension and perceptions of salesperson performance: a multinational perspective. Journal of Managerial Psychology, 15(1): 68-86. Retrieved May 26, 2006, from Emerald Database (http://www.emeraldinsight.com.ezproxy.ump.edu.my/).
20. Kemnitz, J., 2005. Communication apprehension in an online public speaking course. Doctoral dissertation, University of South Dakota, U.S.A. Retrieved September 7 2006 from ProQuest Digital Dissertations (UMI No: 3206230).
21. Ahlfeldt, S., 2004. Problem-based learning in the public speaking classroom. Doctoral dissertation, North Dakota State University, U.S.A. Retrieved September 9, 2006, from ProQuest Digital Dissertations (UMI No: 3119098).
22. Cantwell, L., 2005. A comparative analysis of strengths-based versus traditional teaching methods in a freshman public speaking course: Impacts on student learning and academic engagement. Doctoral dissertation, Azusa Pacific University, U.S.A. Retrieved September 7 2006 from ProQuest Digital Dissertations (UMI No: 3207574).
23. De Grez, L., M. Valcke and I. Roozen, 2009. The impact of an innovative instructional intervention on the acquisition of oral presentation skills in higher education. Computers and Education, 53, 112-120. Retrieved November 15, 2009, from Science Direct Database (http://www.sciencedirect.com.ezproxy.ump.edu.my/).
24. Richmond, V.P. and J.C. McCroskey, 1998. Communication apprehension, avoidance and effectiveness (5th edn.). Massachusettes: Allyn and Bacon.
25. McCroskey, J.C., 1970. Measures of communication-bound anxiety. Speech Monographs, 37(4): 269-277.
26. Richardson, W., 2009. Blogs, Wikis, Podcasts and other powerful web tools for classrooms. Thousand Oaks: Sage.
27. Sterne, J., 2006. The mp3 as cultural artifact. New Media and Society, 8(5): 825-842.
28. Chan, A. and M.J.W. Lee, 2005, August. An MP3 a day keeps the worries away: Exploring the use of podcasting to address preconceptions and alleviate pre-class anxiety amongst undergraduate information technology students. Paper presented at the Student Experience Conference: Good Practice in Practice, Charles Sturt University, Australia.