Using blogs to develop and determine graduate competencies in an undergraduate business subject

Christopher Deneen
The University of Melbourne
Australia

Irshad Ali
Auckland University of Technology
New Zealand

Kevin Byard
Auckland University of Technology
New Zealand

John Kommunuri
Auckland University of Technology
New Zealand

Graduate competencies are increasingly in demand from professional sectors, but with insufficient response from professional degree programs. This study examines the use of blogs as assessment in a first-year Bachelor of Business program. Three hundred and nine students responded to an online questionnaire exploring their perceptions of blog as a learning and assessment tool. Of particular focus were students' perceptions on ease of use, benefit and impact on the recognized graduate competency of writing skills. A regression model was applied to data analys in association between perception of improvement in the quality and quantity of the students' work (Q&Q) and several other variables. Results suggest a significant and complex relationship between participants' perception of the flexibility and benefit of the blog and three areas relevant to writing skills: self-reported improvement in writing, increased ownership of learning, and development of reflective skills. Implications for further research and practice are discussed.

Keywords: Blogs, graduate competencies, technology-enhanced assessment, business education, professional education

Introduction

Graduate competencies are positioned as especially worthwhile outcomes of learning engagements; they serve as bridges between learners' role as student and the subsequent personal and professional roles that they play. Graduate competencies are of special interest in professional degree programs which are specifically charged with the development of learners into professions and professionals. Effective professional writing, for example has been long been positioned as an essential graduate competency for professional degree programs and business degree programs, specifically (Hodges & Burchnell, 2003; Moore & Morton, 2017).

Despite the recognition of their importance, graduate competencies have not swiftly nor easily integrated into curricula. Discipline-specific knowledge and skills that reflect academic priorities rather than professional competencies remain the central, sometimes exclusive emphases in professional degree programs (Boud & Rooney, 2015). Thus, there appears to be a discontinuity between the espoused priorities of programs and the experienced priorities of their curricula. Causes may lie within the means of engaging learners. Assessment and learning engagements are often highly traditional, academic processes that do not easily lend themselves to supporting and determining graduate competencies (Dow, Diaz-Granados, Mazmanian & Retchin, 2014).

Problems in implementation are mirrored within the research. There has been limited empirical research, into the efficacy of undergraduate business education, for example in fostering graduate competencies, generally or of students' perceptions of the efficacy of such efforts (Azevedo et al., 2012). Thus, there is a need in professional degree programs to research the impact of innovative approaches to learning and assessment on the development of graduate competencies. This study seeks to contribute to this growing area of research by looking at how undergraduate business students experienced the use of blogs as an engagement and corresponding perceived impact on the development of graduate competencies.

Graduate competencies in professional degree programs

Graduate competencies encompass a host of concepts (e.g. generic skills, sustainable outcomes, 21st century competencies, etc.). A holistic understanding is that graduate competencies are the complex skills and utilized knowledge that support authentic professional performance within and across myriad disciplinary and professional contexts (Teijeiro, Rungo, & Freire, 2013). Graduate competencies may be seen as the bridge between education and profession (Boud & Rooney, 2015). These competencies range from ownership of development/learning to accurate self-assessment and effective writing skills.

Professional degree programs are increasingly concerned with development of graduate competencies, such as depth of engagement and student ownership (Shroff & Deneen, 2014). People entering the workforce have increasingly seen themselves as free agents, moving across multiple jobs and positions in a career. With this shift have come concomitant demands on programs to broaden the scope of outcomes to sustainable, career-long competencies (Moore & Morton, 2017). As professional workplace roles grow in complexity and change more rapidly, graduate competencies become increasingly important for long-term career success (Chapman, 2010). Thus, professional degree programs are concerned with developing authentic, work-related competencies.

Achieving a corresponding shift in curriculum has proven challenging. Professional degree programs often privilege self-referential and academic learning rather than outcomes highly related to performativity in flexible professional contexts (Boud, 2000; Boud & Rooney, 2015). The means of enacting and determining learning, curricula and assessment continue to emphasize within-discipline outcomes and provide summative, traditional assessments such as final projects and essays (Dow, Diaz-Granados, Mazmanian & Retchin, 2014). Professional degree programs may therefore not inculcate graduate competencies often or deeply enough (Jackson & Chapman, 2010; Azevedo, Apfelthaler & Hurst, 2012). Complex and deep outcomes require innovative approaches to supporting and determining achievement. Thus, innovation in assessment is an essential co-commitment (Deneen & Boud, 2014). Business programs have, however begun integrating innovations to learning and assessment as well as balancing the aims of discipline-specific skills and knowledge with graduate competencies (Jackson & Chapman, 2010).

Blogs

Blogs are a well-established educational medium for teaching, learning and assessment (Chawinga, 2017; Churchill, 2009; Top, 2012; Williams & Jacobs, 2004). Blogs provide personalized, versatile space and ownership for authorship (Liu, Kalk, Kinney, & Orr, 2012). This versatility allows blogs to function as a communication tool more easily than discussion forums or e-mails while allowing authors to retain ownership of their contributions (Du &Wagner, 2007; Kim, 2008). The use of blogs as a specific medium of writing may carry developmental benefit in comparison to traditional academic writing. Blogs embody writing for an unknown audience; which is a fundamentally different paradigm than traditional academic writing for instructor or peer review (Alfaki, 2015). In this respect, blogs may be seen as a teaching, learning and assessment tool particularly well-suited for developing authentic writing competency. Writing is also recognized specifically as a professional skill in which graduates are inadequately prepared (Moore & Morton, 2017; Wells et al., 2009). Thus, written communication beyond an academic audience through blogging would seem a prime target for innovation and development.

Using blogs to access and develop writing has additional benefit; There is evidence for blogging as a means to developing critical thinking and reflective skills (Joshi & Chugh, 2009; Kim, 2008; Weller et al., 2005). Blogging has been shown to foster deeper and trans-disciplinary understandings of course material (Davi, Frydenberg, & Gulati, 2007; Yang, 2009). Blogs have been shown to enhance students' skills at self-regulating information management; specifically goal setting and planning for tasks and assessments (Dabbagh & Kitsantas, 2012). Blogs are potential platforms for expanding beyond an academic or discipline-specific focus (Weller, Pegler, & Mason, 2005). Thus, blogging connects writing to other graduate competency focus and development. It is equally worthwhile to determine what connections the development of writing might have to other graduate competencies.

The importance of learners' perceptions

A growing body of research demonstrates the significance of students' perceptions of assessment and learning on outcome achievement at all educational levels, including tertiary (Deneen, Brown & Carless, 2018; Brown, 2013). Similarly, models of technology utilization indicate users' perceptions of technology may predict future or continued use of that technology (Shroff, Deneen & Ng, 2011; Teo, 2009). Current research also suggests that the intersection point between students' perceptions of technology and assessment may create complex dynamics that impact efficacy (Deneen & Shroff, 2014). It is of particular importance, then that research be conducted into the meeting place of learning, assessment, technology and graduate competencies. Further, it is appropriate to apply the lens of students' perceptions to accomplish this.

The perceptions of students in a first-year paper (i.e. subject) in an undergraduate business program were obtained and results subsequently analysed using descriptive, correlational, and regression analysis. A framework of quality and quantity (Q&Q) is used to interpret results. These interpretations are then discussed in relationship to research; recommendations are made to inform practice and further research.

Context

The study was conducted within a Bachelor of Business degree programme at a university in New Zealand. Students in a first-year, compulsory undergraduate business paper were provided with required weekly assessment tasks to complete and upload to their personal blog space created on the learning management system. The blog assessment had a weighting of 25%; a business report carried a weighting of 35% and an exam carried a 40% weighting. The blog was structured with authorship exclusive to the student and feedback exclusive to the instructor.

Formative feedback was provided by the lecturer at six points. Summative feedback was provided at the end of the semester.

After completing and uploading their writing tasks, students were asked to engage in a guided reflection for each task. Prompts asked students to reflect on difficulty of tasks, and the relevance of these tasks to the paper. They were also asked to discuss the applicability of what they had learnt within professional contexts. Finally, students were required to assess their achievement in relationship to the program curriculum and its intended outcomes.

Methodology

Research aim and questions

This study investigates the perceived efficacy and ease of using blogs to develop graduate competencies. A model was designed using various explanatory factors described in the following methodology section. The two main questions the study aims to answer are:

What were students' perceptions of efficacy and ease of using blogs?
To what degree and in what ways did students perceive the use of blogs as supporting graduate competency development and achievement?

Prior to initiating formal investigation, the study was granted approval by the university ethics committee.

Participants

733 students were enrolled in the surveyed Bachelor of Business paper; a total of 309 valid survey responses were collected (n=309). This represented a valid response rate of 42%. The survey was carried out in the second semester. 51% of the respondents were male and 49% female. The majority of respondents were full time students (95%), and most respondents were domestic students (82%). These identified characteristics were highly representative of the total cohort enrolment.

Most participants were in their first year at university and reported that they had not used blogs prior to the paper. Development/instruction was therefore provided in use of the software and the specific task of blogging. This included instruction in creating links to secondary information they had sourced, uploading completed work to their blogs and using the different writing functions to complete their reflections. Participants gave their informed consent to participate in the study.

Data collection

Data was collected through a 24-item, three-section survey. Section one collected demographic data patterns of computer and internet access and use. Section two collected information on ease of blog use. Section three collected information on perceived impact of blogs on competence development and achievement. Responses for sections two and three were elicited using a centre-weighted, five-point Likert scale.

Items for the survey were developed based on constructs validated in the technology acceptance model (TAM). Specifically, this survey focuses on ease of use and perceived usefulness of a particular technology predict respondents' intention to continue use of that technology (Davis, 1989; Yi & Hwang, 2003). Most of the students were using blogs for the first time; examining ease of use was therefore important. Utility items were framed by the potential of blogs for the development of graduate competencies. The survey was administered online through the web-based service, Survey Monkey.

Data analysis

Section one data was analysed using descriptive statistics; results are reported in the 'participants' section of this paper. Data from section two (ease of using the blogs) was analysed using descriptive statistics to find mean score for each item. Data from section three (efficacy of use and perception of quality) was analysed using descriptive statistics, correlation and regression analysis. Mean scores were calculated to determine impact of the intervention on the various independent variables listed in Table 2.

Correlation and regression analysis were used to determine strengths of relationships between responses for set three items. Perceived improvement in quality and quantity of students work (hereafter referred to as Q&Q) was used as a proxy for perceived competence development and overall achievement. Associations between stated variables using pairwise correlation was tested. Further tests were conducted on degree of effect of these independent variables on Q&Q.

A regression model was designed with Q&Q as the dependent variable representing perceived competence development and overall achievement of students. The following contributing factors are used as independent variables: increased interest in learning, ability to check work regularly, flexibility in completing tasks, increased ownership of learning, getting feedback from lecturers, improvement in ability to reflect on learning, improvement in writing ability, and the effectiveness of using blog tools. The following equation has been used to measure the impact of each of the independent variables on the Q&Q of students work.

Reliability of the regression model was established through a sequential check by members of the research team. Researchers independently confirmed model fit and analytical procedures.

$$Quality\&\ Quantity = \alpha + \beta_1 Interest + \beta_2 Check + \beta_3 Flexibility + \beta_4\ Ownership + \beta_5 Feedback + \beta_6 Reflection + \beta_7 Writing + \beta_8 Tools$$

Limitations

This design of the study focuses on students' perceptions of the development of their competencies. This is a worthwhile focus, as students' perceptions of the impact of a particular technology is a strong predictor of their intention to use that in the future. Equally important, student perceptions of quality play a seminal role program and subject evaluation. This is, however, complimentary to rather than substitutional for observable changes in graduate competency development. That development, however, is recognized as highly longitudinal; it is unlikely that large changes would be observed in a semester-long engagement and therefore an observational component for a study of this length is unlikely to add value. The intended next stage of this study is a program-level, multi-year study tracking changes in both perception and observable expressed competencies.

Results

Ease of use

Students generally found blog use was easy to use, with a high mean score of 3.90. The item with the highest mean score (4.20) represented student endorsement that digital uploading was easier than hard copy submission. While this would seem intuitively obvious, a common issue is whether digital medium does, in fact represent an easier use, especially where new technology is being employed (Deneen & Shroff, 2014; 18; Teo, 2009). This was especially salient, given that most of the students had reported not having used blogs prior to the course. Results relating to ease of use are given in Table 1.

Table 1: Ease of Use

Question	Mean
Uploading work directly to the blog was easier than submitting hard copy	4.20
Overall the blog was easy to use	3.90
It was easier to create links to the articles instead of uploading them straight into the blog	3.86
Sufficient information was provided for using blogs	3.70
I was familiar with how to use the blog tools	3.66

Competence development

Student mean responses to section 2 items were all positive. One goal of using the blog was to afford students regular feedback from lecturers throughout the semester. The corresponding item yielded the highest mean within this section, suggesting that students perceived this goal as having been met. From the perspective of both perception and practice, this is a positive finding. Feedback is a core mechanism in assessment for learning (Williams, 2011). Students also tend to value instructor feedback over peer feedback both generally and in a blogging paradigm (Xie, Ke & Sharma, 2008). Thus, the blog appears to meet this benchmark.

Table 2: Descriptive statistics pertaining to competence development

	Mean	Std. Deviation
Helped get feedback from lecturers (Feedback)	3.799	0.925
Helped check work regularly (Check)	3.735	0.868
Increased flexibility for task completion (Flexibility)	3.718	0.991
Increased ownership of learning (Ownership)	3.667	0.899
Effective tool for writing assessments (Tools)	3.553	1.039
Quality and quantity of work (Q&Q)	3.437	0.987
Improved reflective skills (Reflection)	3.359	0.917
Improved writing ability (Writing)	3.320	0.914
Increased interest in learning (Interest)	3.294	0.957

Interestingly, the three lowest rated items pertained to writing skills development, increased interest in learning and reflective skills. All three of these items strongly relate to recognized graduate competencies (Jackson, 2010; Moore & Morton, 2017). The mean was still positive for these items, suggesting that the blogs had some desired effect, but not to the degree one might hope. As an effective tool for writing assessments, students endorsed blogs, suggesting that the low improvement score was not a categorical rejection of blogs as a modality for improving writing. These findings may, therefore confirm that graduate competencies take substantial time to develop and must be thought of longitudinally.

Results of the correlation analysis are shown in Table 3.

Table 3: Correlation matrix

	Q&Q	Interest	Check	Flexibil-ity	Owner-ship	Feed-back	Reflect-ion	Writing Improve-ment	Writing Tool
Q&Q	1.000								
Interest	0.599	1.000							
Check	0.575	0.512	1.000						
Flexibil-ity	0.591	0.478	0.600	1.000					
Owner-ship	0.626	0.590	0.506	0.569	1.000				
Feedback	0.516	0.386	0.495	0.434	0.399	1.000			
Reflect-ion	0.504	0.512	0.357	0.300	0.362	0.460	1.000		
Writing Improve-ment	0.607	0.541	0.422	0.451	0.597	0.410	0.451	1.000	
Writing Tool	0.539	0.645	0.484	0.565	0.493	0.454	0.401	0.473	1.000

All pairings demonstrated positive correlation, with 18 pairs showing significant correlation. The strongest correlation, at 0.645 was between blogs increasing interest in learning and serving as effective writing tools. There

was also a strong correlation between perceived flexibility in completing weekly tasks and respondents' ability to check their work regularly. Given the importance of self-regulation and its recognized connection to regular task engagement this is an especially interesting finding in terms of blogs facilitating graduate competencies.

With the exception of Q&Q correlation, feedback pairings all fell below the threshold of significance. This is especially interesting, given that feedback yielded the highest mean response (see Table 2). This suggests that while the mechanism of instructor feedback was seen as well served by the blog, its relationship to other substantive areas, such as writing was limited. Feedback is critical to assessment of and for learning, and an issue of concern in choosing private versus public blogging. One implication is that concomitant with increasing access to feedback, students must be afforded feedback that is better focused on the desired aims, such as fostering graduate competencies.

Table 4. Regression results

	Coefficient	t-statistic	P value
Intercept	-0.551***	-2.82	0.005
Interest	0.120**	2.09	0.037
Check	0.147***	2.59	0.010
Flexibility	0.168***	3.26	0.001
Ownership	0.194***	3.38	0.001
Feedback	0.119**	2.43	0.016
Reflection	0.148***	3.03	0.003
Writing	0.204***	3.86	0.000
Tools	0.023	0.46	0.647
R^2	0.609		
F-Statistic	58.39		
No. of observations	309		

*** and ***indicate significance at p < 0.05 and p < 0.01 or better level respectively*

The results of the regression analysis are shown in Table 4. The regression model shows an R2 of 0.61 suggesting that the factors used to test the dependent variable (Q&Q) are relevant variables with an adjusted R2 of 0.60. The model demonstrates good fit with an F value of 58.39 and a significance level of 0.000. The intercept with a coefficient of -0.551 and significant at 5% indicates that participants' perception of improvement in the quality of their work cannot be possible without the explanatory variables used in the model.

The most significant impact on Q&Q is from perception of improvement in writing ability with a t-statistic of 3.86 and significant at 1% (p= 0.000). Thus, improvement in writing ability was the seen as the most significant reason for improvement in the Q&Q of participants' work. It's not that the low endorsement indicated little perceived change; rather, this may be understood as a conservative process; participants may not see themselves changing radically if they see themselves as skilled already. That does not, however prevent incremental changes in writing ability from having a profound effect, as seen in both the correlation matrix and regression table. Thus, this finding affirms that writing ability is perceived as a graduate competency; it appears longitudinal in nature and participants make powerful connections to other valuable areas of the learning engagement and assessment.

As part of their weekly tasks, students were required to write paragraphs on their learning using trigger questions provided. Analysis shows that writing weekly reflections resulted in perception of improved of writing ability with the most positive influence on Q&Q of their work. Improved writing ability yielded the lowest mean, but this was still perceived as having a potent relationship to enhanced Q&Q. It may be that this single blogging opportunity did not yield sufficient opportunity for students to perceive dramatic changes in their writing, but that the changes that were perceived mattered. Taken together with the correlation between interest in learning and the blog as a writing assessment, this suggests a potentially complex relationship around graduate competencies, assessment and writing.

Increased ownership of students learning, flexibility in task completion and development of reflection skills all demonstrated significant regression onto Q&Q. The increased ownership of learning may provide students' greater motivation to achieve at a higher level. Giving flexibility to students to complete their work may have a positive effect on their work since it enables them to access their work anytime and make changes as and when they have new ideas. The development in students' reflective skills may help them to reflect on the feedback given

by lecturers and to incorporate new ideas into their work. The results show that the students found formative feedback from lecturers very useful and that it had a positive impact on the Q&Q of their work (t= 3.03; p=0.03).

Discussion

Students seemed to connect interest in learning to the blogs ability to function as a writing assessment. Students who reported that the blog provided greater flexibility in completing weekly assessment tasks were also likely to have reported that this improved ownership of their learning. Those students who reported an increased ownership of learning were also more likely to have indicated that it led to an overall improvement in the quality and quantity of their work (Q&Q). This adds to a growing body of research suggesting that technology-enhanced assessment(TEA), when perceived as useful may have a strong relationship to ownership of learning (Shroff & Deneen, 2014).

There was also a strong correlation between students who reported that they were able to check their work regularly and make improvements based on formative feedback received from their lecturers and those that reported that it increased the Q&Q of their work. Thus, students who perceive blogs as a flexible, regular learning and assessment engagement appear more likely to perceive benefit in areas essential to graduate competencies. Sustainable assessment and sustained engagement with assessment are key factors in assuring both assessment for learning and learning that extends beyond the immediacy of an academic environment (Boud, 2000). In designing blogs as sustained and sustainable assessment, attention should, therefore be given to assuring blogs are well-received by students and that the curriculum requires they regularly build on the blog.

This supports existing research that as a graduate competency, writing has a connection to other recognized graduate competencies (Hodges & Burchnell, 2003; Moore & Morton, 2017). However, the most significant impact on Q&Q was the improvement in students' writing ability. Although improved writing ability yielded the lowest mean score in section 2, this was still in the view of the students a potent relationship to enhance Q&Q. Given the strong correlation between interest in learning and blog as a writing assessment, this suggests a potentially complex relationship around graduate competencies, assessment and writing. This further supports the idea that future research and practice should expand the use of blogs as assessment beyond a single paper. Doing so might further enhance the potential of blogs to develop writing ability and its connection to other graduate competencies.

Using blogs at the higher education level is appealing because technology literate students readily adopt such tools (Chawinga, 2017; Top. 2012). One would therefore expect an increase in interest in learning to then impact significantly on students' learning and achievement. However, our results show that the increase in interest in learning due to the use of computer-based technology with 'tech-savvy' students does not have a very significant impact on Q&Q. Thus, while increased interest in learning has a significant correlation with some of the elements under study, this does not seem to hold to the larger concept of Q&Q. Given the importance of students' interest in learning to life-long and career long development, the complex relationship of interest to Q&Q, blogs and Graduate Competencies warrants further study.

Conclusion

It is essential for university graduates to have an array of graduate competencies for immediate and long-term success in professional work environments. Emerging research suggests that professional degree programs are not optimizing opportunities to enhance graduate competencies development. This paper reports on the findings of a research project that aimed to explore student perceptions on the efficacy of blogs as assessment for fostering graduate competencies development.

One implication for practice is that the use of blogs or any TEA for graduate competencies development might be better suited to longitudinal use, such as a multi-year student tethered design. Further research on this is warranted.

The low positives for the graduate competency results suggest that the blog was not as high-impact in these areas. This may have been due to the relative complexity and time needed to develop these as compared to the more mechanical elements such as increasing frequency of feedback. This finding may confirm that graduate competencies take substantial time to develop and must be thought of longitudinally.

As areas for future research, students' perceptions between public and private blog use might be compared, to determine what, if any difference collaborative blog models have on perceptions of graduate competencies

achievement. Similarly, there are plans to extend this research further by utilizing work product evaluations, to compare student perceptions with instructor perceptions of impact.

References

Abrami, P. C., & Barret, S. (2005). Directions for research and development on electronic portfolios. Canadian Journal of Learning and Technology, 31(3). https://doi.org/10.21432/T2RK5K

Alfaki, I. M. (2015). University students' English writing problems: diagnosis and remedy. International Journal of English Language Teaching, 3(3), 40-52.

Arnold, J., Loan-Clarke, J., Harrington, A., & Hart, C. (1999). Students' perceptions of competence development in undergraduate business-related degrees. Studies in Higher Education, 24(1), 43-59. https://doi.org/10.1080/03075079912331380138

Azevedo, A., Apfelthaler, G., & Hurst, D. (2012). Competency development of business graduates: An industry- driven approach for examining the alignment of undergraduate business education with industry requirements. The International Journal of Management Education, 10(1), 12-28. https://doi.org/10.1016/j.ijme.2012.02.002

Boud, D. (2000). Sustainable assessment: rethinking assessment for the learning society. Studies in Continuing Education, 22(2), 151-167. https://doi.org/10.1080/713695728

Boud, D. & Rooney, D. (2015). What Can Higher Education Learn from the Workplace? In A. Dailey-Hebert & K. S. Dennis (Eds.) Transformative Perspectives and Processes in Higher Education (pp. 195-209). Springer International Publishing. https://doi.org/10.1007/978-3-319-09247-8_11

Brown, G. T. (2013). Tongan secondary students' conceptions of schooling in New Zealand relative to their academic achievement. Asia Pacific Education Review, 14(3), 345- 357. https://doi.org/10.1007/s12564-013-9264-y

Chawinga, W. D. (2017). Taking social media to a university classroom: teaching and learning using Twitter and blogs. International Journal of Educational Technology in Higher Education, 14(1), 3. https://doi.org/10.1186/s41239-017-0041-6

Churchill, D. (2009). Educational applications of Web 2.0: Using blogs to support teaching and learning. British Journal of Educational Technology, 40(1), 179-183.

https://doi.org/10.1111/j.1467-8535.2008.00865.x

Dabbagh, N., & Kitsantas, A. (2012). Personal learning environments, social media, and self- regulated learning: A natural formula for connecting formal and informal learning. The Internet and Higher Education, 15(1), 3- 8. https://doi.org/10.1016/j.iheduc.2011.06.002

Davi, A., Frydenberg, M., & Gulati, G. J. (2007). Blogging across the disciplines: Integrating technology to enhance liberal learning. MERLOT Journal of Online Learning and Teaching, 3(3).

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technologies. MIS Quarterly, 13(3), 319-340. https://doi.org/10.2307/249008

Deneen, C. C., Brown, G. T. L., Carless, D. (2018). Students' conceptions of eportfolios as assessment and technology. Innovations in Education and Teaching International, 55(4) 487-496. https://doi.org/10.1080/14703297.2017.1281752

Deneen, C. C. & Shroff, R. (2014). Understanding successes and difficulties in program-level eportfolios: A case study of two professional degree programs. Review of Higher Education and Self-Learning, 7(24), 145-160.

Deneen, C. C. & Boud, D. (2014). Patterns of resistance in managing assessment change. Assessment & Evaluation in Higher Education, 39(5), 577-591. https://doi.org/10.1080/02602938.2013.859654

Dow, A. W., Diaz-Granados, D., Mazmanian, P. E., & Retchin, S. M. (2014). An exploratory study of an assessment tool derived from the competencies of the interprofessional education collaborative. Journal of interprofessional care, 28(4), 299-304. https://doi.org/10.3109/13561820.2014.891573

Du, H. S., & Wagner, C. (2007). Learning with weblogs: Enhancing cognitive and social knowledge construction. IEEE Transactions on Professional Communication, 50(1), 1-12. https://doi.org/10.1109/TPC.2006.890848

Duffy, P. (2008). Engaging the YouTube Google-eyed generation: Strategies for using Web 2.0 in teaching and learning. The Electronic Journal of e-Learning 6(2), 119-130.

Halic, O., Lee, D., Paulus, T., & Spence, M. (2010). To blog or not to blog: Student perceptions of blog effectiveness for learning in a college-level course. The Internet and Higher Education, 13(4), 206-213. https://doi.org/10.1016/j.iheduc.2010.04.001

Hodges, D., & Burchell, N. (2003). Business graduate competencies: Employers' views on importance and performance. International Journal of Work-Integrated Learning, 4(2), 16.

Jackson, D. (2010). An international profile of industry-relevant competencies and skill gaps in modern graduates. International Journal of Management Education, 8(3), 29-58. https://doi.org/10.3794/ijme.83.288

Jackson, D., & Chapman, E. (2010). Non-technical competencies in undergraduate business degree programs: Australian and UK perspectives. Studies in Higher Education, 37(5), 541-567. https://doi.org/10.1080/03075079.2010.527935

Joshi, M., & Chugh, R. (2009). New paradigms in the teaching and learning of accounting: Use of educational blogs for reflective thinking. International Journal of Education & Development using Information & Communication Technology, 5(3), 1-11.

Kim, H. N. (2008). The phenomenon of blogs and theoretical model of blog use in educational contexts. Computers & Education, 51(3), 1342-1352. https://doi.org/10.1016/j.compedu.2007.12.005

Lange, P. D., Jackling, B., & Gut, A.M. (2006). Accounting graduates' perceptions of skills emphasis in undergraduate courses: An investigation form two Victorian universities. Accounting & Finance, 46(365-386). https://doi.org/10.1111/j.1467-629X.2006.00173.x

Liu, M., Kalk, D., Kinney, L., & Orr, G. (2012). Web 2.0 and its use in higher education from 2007-2009: A review of literature. International Journal of E-Learning, 11(2), 153- 179.

Moore, T., & Morton, J. (2017). The myth of job readiness? Written communication, employability, and the 'skills gap'in higher education. Studies in Higher Education, 42(3), 591-609. https://doi.org/10.1080/03075079.2015.1067602

Redecker, C., & Johannessen, O. (2013). Changing assessment - Towards a new assessment paradigm using ICT. European Journal of Education, 48(1), 79-96 https://doi.org/10.1111/ejed.12018

Schneckenberg, D. (2012). Web 2.0 and competence-oriented design of learning: Potentials and implications for higher education. British Journal of Educational Technology, 42(5), 747-762. https://doi.org/10.1111/j.1467-8535.2010.01092.x

Shroff, R., Deneen, C. C. & Lim, C.P. (2014). Student ownership of learning using e- portfolio for career development. Journal of Information Systems Technology & Planning 7(18), 442-460.

Shroff, R., Deneen, C., & Ng, E. M. W. (2011). Analysis of the technology acceptance model in examining students' behavioural intention to use an e-portfolio system. Australasian Journal of Educational Technology, 27(4), 600-618. https://doi.org/10.14742/ajet.940

Teo, T. (2009). Modeling technology acceptance in education: A study of pre-service teachers. Computers & Education, 52(2), 302-312. https://doi.org/10.1016/j.compedu.2008.08.006

Teijeiro, M., Rungo, P., & Freire, M. J. (2013). Graduate competencies and employability: The impact of matching firms' needs and personal attainments. Economics of Education Review, 34, 286-295. https://doi.org/10.1016/j.econedurev.2013.01.003

Top, E. (2012). Blogging as a social medium in undergraduate courses: Sense of community best predictor of perceived learning. The Internet and Higher Education, 15(1), 24-28. https://doi.org/10.1016/j.iheduc.2011.02.001

Unwin, A. (2007). The professionalism of the higher education teacher: what's ICT got to do with it? Teaching in Higher Education, 12(3), 295-308. https://doi.org/10.1080/13562510701278641

Weller, M., Pegler, C., & Mason, R. (2005). Use of innovative technologies on an e-learning course. The Internet and Higher Education, 8(1), 61-71. https://doi.org/10.1016/j.iheduc.2004.10.001

Wells, P., Gerbic, P., Kranenburg, I., & Bygrave, J. (2009). Professional skills and capabilities of accounting graduates: The New Zealand expectation gap? Accounting Education: An International Journal, 18(4), 403-420. https://doi.org/10.1080/09639280902719390

Williams, D. (2011). What is assessment for learning? Studies in Educational Evaluation, 37, 3-14. https://doi.org/10.1016/j.stueduc.2011.03.001

Williams, J. B., & Jacobs, J. (2004). Exploring the use of blogs as learning spaces in the higher education sector. Australasian Journal of Educational Technology, 20(2), 232- 247. https://doi.org/10.14742/ajet.1361

Xie, Y., Ke, F., & Sharma P. (2008). The effect of peer feedback for blogging on college students' reflective learning processes. The Internet and Higher Education, 11(1), 18- 25. https://doi.org/10.1016/j.iheduc.2007.11.001

Yang, S.H. (2009). Using blogs to enhance critical reflection and community of practice. Journal of Educational Technology & Society, 12(2), 11-21.

Yi, M.Y., & Hwang Y. (2003). Predicting the use of web-based information systems: self- efficiency, enjoyment, learning goal orientation, and the technology acceptance model. International Journal of Human-Computer Studies, 59, 431-449. https://doi.org/10.1016/S1071-5819(03)00114-9

Please cite as: Deneen, C., Ali, I., Byard, K. & Kommunuri, J. (2019). Using blogs to develop and determine graduate competencies in an undergraduate business subject. In Y. W. Chew, K. M. Chan, and A. Alphonso (Eds.), *Personalised Learning. Diverse Goals. One Heart. ASCILITE 2019 Singapore* (pp. 121-129).