



Proceedings of the International Mobile Learning Festival 2015:

Mobile Learning, MOOCs and 21st Century Learning

Editors

Daniel Churchill, The University of Hong Kong, Hong Kong SAR China
Thomas K. F. Chiu, The University of Hong Kong, Hong Kong SAR China
Nicole J. Gu, The University of Hong Kong, Hong Kong SAR China



International Mobile Learning Festival 2015, 21-23 May, Hong Kong SAR China



Enhancing graduate employability of the 21st century learner

Dr Shelley Kinash (corresponding author)

Learning & Teaching, Bond University, Gold Coast, Australia

skinash@bond.edu.au

61 7 5595 1649 (work phone)

Bond University Gold Coast Queensland Australia 4229

Dr Linda Crane

Health Sciences & Medicine, Bond University, Gold Coast, Australia

Today's higher education students want choice, personalisation, efficiency and relevance leading to maximal outcomes, including employment. They need heightened media literacy and advanced higher order thinking, which can be facilitated through technology-enhanced pedagogies. The reported research inquired into how higher education can heighten graduate employability in the context of 21st century learning. Analysed Australian national data from 705 completed surveys, and interviews/focus groups with 147 people revealed that there are discrepancies between stakeholder groups (students, graduates, higher education personnel and employers) that must be acknowledged and rectified if the 21st century learner is to maximise employability. Research results indicated that the primary strategy towards improving graduate employability is supported participation in work experience, internships and placements. Furthermore, interviewed stakeholders advocated that employability in the 21st century requires that students pursue a well-rounded experience including extra- and co-curricular activities.

Keywords: employability; higher education graduates; 21st century learners

Introduction

Quality is a predominant theme in higher education, and one of the primary concerns is that the particular wants and needs of 21st century learners are not being met (Hung, Shu-

Shing, & Lim, 2012; Irvine, Code, & Richards, 2013). Why are the words – *21st century learner* – so prevalent in the literature? In other words, what is different about this generation of learner from those who came before? The primary difference appears to be created by their lifelong access to the internet (Kinash, 2011; Lambert, & Cuper, 2008; Prensky, 2012). As a result, 21st century learners are described as more connected and empowered than previous student generations (Green, 2012; Prensky, 2012). Today's students acknowledge feeling *entitled* to quality education (Kinash, Wood, & Knight, 2013) and researchers have reported that contemporary students want choices as to their mode of study (on-campus, online or blended) so that learning is accessible and personalised (Green, 2012; Irvine, Code, & Richards, 2013). Students also insist that learning be relevant, practical and efficient (Freeman, & Wash, 2013; Green, 2012). In addition to what 21st century learners seem to *want*, the changing contexts of technology, higher education and the employment marketplace have also created new learning *needs*. One of the most prevalent needs is that of media literacy (Mundt, & Medaille, 2011). Students seem to compartmentalise *literacy* and *communication*, unlinking day-to-day practices such as texting from study-based assessment so that functional literacy (clear self-expression, professionalism, spelling, punctuation and grammar) are declining (Amicucci, 2014; Nichols, 2012; Young, 2012). While some authors map the 21st century educational experience to the wants and needs of learners, others identify opportunities and affordances previously unavailable to learners. Due to technology-enhanced pedagogies, there is heightened capacity to develop graduates' critical, complex and connected thinking (Hung, Shu-Shing, & Lim, 2012; Lambert, & Cuper, 2008; O'Connor, McDonald, & Ruggiero, 2014).

In summary, there are three predominant educational propositions in the literature about the 21st century learner. Each of these has associated corollaries in the context of

graduate employment. First, contemporary students want higher education that is flexible and personalised (i.e. layered choices about online and face-to-face study) and learning that is practical, relevant and efficient. These educational preferences are linked to employment outcomes in that one of the reasons why students want access to online learning is so that they are able to engage in activity other than study while enrolled in university such as working part-time jobs and participating in extra-curricular activities (Horspool, & Lange, 2012; Pastore, & Carr-Chellman, 2009), and that the operational definition of *practical*, *relevant* and *efficient* is that the university degree is structured around employability skills (Daily, Farewell, & Kumar, 2010; Tate, Klein-Collins, & Steinberg, 2011). Second, the predominance of social media in the 21st century has both heightened the need for media literacy and weakened overall literacy, as youth tend not to acknowledge the importance of consistent written conventions such as spelling and punctuation across all forms of communication. The associated employment proposition is that it is incumbent upon higher education to instil media (and comprehensive) literacy so that graduates are employable (Moody, Stewart, & Bolt-Lee, 2002). Third, the 21st century makes heightened learning possible, in that students have access to nearly limitless information and can access it prior to reporting to class, so that teaching time can focus on strengthening application and connected knowledge. Priority and development of higher order thinking skills heightens graduate employability (Aman, & Sitotaw, 2014; Kim Lian Chan, 2011).

Graduate employability means that higher education alumni have developed the capacity to obtain and/or create work. Furthermore, employability means that institutions and employers have supported the student knowledge, skills, attributes, reflective disposition and identity that graduates need to succeed in the workforce (Hinchliffe & Jolly, 2011; Holmes, 2013; Knight & Yorke, 2004; Yorke, 2006; Yorke & Knight, 2006).

Methods

This research project was commissioned by the Australian Government, Office for Learning and Teaching (December 2013). The views expressed in this report do not necessarily reflect the views of this government department. The research was conducted through collaboration between three universities and the Australian Council for Private Education and Training (ACPET). The lead institution was Bond University. The partner institutions were James Cook University and University of Southern Queensland. The main campuses of all three institutions are in Queensland, Australia.

The research commenced in January 2014 and the final report was submitted in February 2015. All project activities were conducted in full compliance with ethical guidelines as reviewed and approved by Bond University and through gatekeeper clearance at the partner institutions.

The aims of the research were to: achieve a greater clarity on the issues, challenges and contexts (including the 21st century learning experience) of graduate employability; identify and review the strategies that have been successfully used to address these challenges; create opportunities for the diverse stakeholder groups to share their perspectives; and promote strategies that may be used by the various stakeholders to collaborate on improving graduate outcomes. Data collection was conducted in three phases. First, the literature was reviewed to identify and report on higher education strategies for which there was heightened evidence of improved graduate employability. Second, four stakeholder groups (students, graduates, higher education personnel and employers) were surveyed to capture their experiences of the strategies identified through the literature review. Third, people from the four stakeholder groups were individually interviewed and focus groups were facilitated to qualitatively research their experiences.

Literature Review: Empirically evidenced employability strategies

A structured literature review was conducted using the approach of Kinash (2008). The literature review identified strategies for which there was empirical evidence of heightened employability. Overall, the literature provided evidence that students are expected to do more than study and complete their courses in order to be employable upon graduation; additional employability strategies are necessary in order to secure suitable work (Nagarajan, & Edwards, 2014; Rae, 2007; Yorke, 2010). Authors were clear that employability requires collaboration between four stakeholder groups; higher education personnel and employers make strategies available, and students and graduates (alumni) must actively initiate and make the most of these strategies for them to be effective (Harvey & Shahjahan, 2013; Walkington, 2014). The full results of the literature review are reported in a separate publication. Upon approval for distribution, research publications from the full project will be available through <http://graduateemployability.com> For the purposes of this current publication, the twelve strategies for which there was published empirical evidence of a positive relationship between the approaches and graduate employability are listed below. The abbreviated form in parentheses is inserted to reference the results tables inserted below.

- (1) Capstone/final semester projects (Capstone)
- (2) Careers advice and employment skill development (Careers Advice)
- (3) Engaging in extra-curricular activities (Extra-curricular)
- (4) International exchanges (Int Exchange)
- (5) Mentoring (Mentoring)
- (6) Attending networking or industry information events (Networking)
- (7) Part-time employment (PT Work)

- (8) Developing graduate profiles, portfolios & records of achievement (Portfolios)
- (9) Professional association membership/engagement (Prof Assocs)
- (10) Social media/networks (Social Media)
- (11) Volunteering/community engagement (Volunteering)
- (12) Work experience/internships/placements (Work Experience)

Notably, the literature predominantly used the term “extra-curricular” activity as an employability strategy and this was therefore the term used on the surveys. However, a clarification emerged in the subsequent interviews whereby many educators prefer the term co-curricular, implying that experiences are not separate and apart from the formal curriculum, but aligned and supported in conjunction.

Surveys: Employability strategies

The research team designed four complementary versions of a brief survey. A separate colour-coded version of the survey was designed for each of four stakeholder groups of: students; graduates; higher education personnel (educators, career development professionals, other); and employers. The surveys were designed to take a maximum of five minutes to complete and were available online and in paper format (a single back-to-back A4 page). The surveys were accompanied by an Explanatory Statement and a Consent Form, in order to maintain ethical protocol. The first section of the survey instrument included questions relating to demographics and perspectives about employability. The main component of the four survey instruments asked participants to respond to a checklist of the twelve employability strategies listed on the previous page. Respondents were directed to tick each of the strategies that satisfied the respective survey question below and invited to provide any additional written comments they felt were relevant.

- Students –
What strategies are you using to improve your graduate employability?
- Graduates -
What strategies did you use to improve your employability?

- Employers -

Which of the following strategies undertaken by students does your organisation value when recruiting graduates?

- Higher Education Personnel -

Which of the following employability strategies do you provide for students?

In total, more than 1500 individuals received a personal invitation to participate in the project and complete a questionnaire through recruitment strategies such as operating booths at graduate career fairs, sending messages through LinkedIn and visiting universities. A total of 821 responses were received (55% response rate). There were more online (70%) than paper surveys submitted. Of submitted surveys, 705 were valid (86%). The 116 invalid responses were surveys with missing fields and/or repeated submissions from the same respondents. Response numbers in the four stakeholder groups are shown in Table 1.

Table 1. Survey responses.

Stakeholder group	Valid surveys completed	Percentage of total number of surveys	Response numbers and rates (including invalid surveys)
Students	442	63%	800/58%
Graduates	102	14%	350/39%
Higher Education	108	15%	250/59%
Employers	53	8%	100/73%
Total	705	100%	1500/55%

The survey responses were categorised on a spread sheet. Descriptive and inferential quantitative analysis was conducted using the Statistical Package for the Social Sciences (SPSS) software. Thematic qualitative analysis was conducted using NVivo, which is a computer software package used to sort, classify and reveal salient themes from qualitative data such as survey comments. NVivo was used in conjunction with a thematic matrix. The project team created a matrix from full literature analysis. NVivo functions allow researchers to test the qualitative validity of theories against the collected

data. Employability theory, as represented in the matrix, was compared with the themes emerging from the survey comments. The primary challenge of the survey phase was overcoming the analytic constraints resulting from limited sample sizes. While the overall response rate was commendable, some of the specific statistical fields were relatively small and only achieved the requisite size for valid statistical measures of significance, at minimum confidence intervals. The discrepant group sizes also limited the statistical measures that could be applied. The phased project design compensated for the limitations of the survey sample size in that findings emerging from the survey data were explicitly followed-up through interviews and focus groups.

Interviews

Participants for interviews were identified through multiple methods. If respondents addressed a relevant theme in their narrative survey comments and indicated on their consent form that they were willing to be contacted, an interview or focus group was scheduled. Participants were also identified through team member networks, snowball referrals and literature searches. Interviews and focus groups were intentionally scheduled in all eight Australian States and Territories in urban, rural, remote and regional contexts. The total number of participants in interviews and focus groups was 147; the distribution of participants across stakeholder groups is shown in Table 2.

Table 2. Interview and focus group participation

Stakeholder	Interviews	Focus Groups	Focus Group Participants	Total Participants
Students	5	5	22	27
Graduates	8	3	16	24

Higher Education	32	17	48	80
Employers	16	0	0	16
Totals	61	25	86	147

Maximum one hour semi-structured interviews and focus groups were conducted using key, common questions probing participant's demographic details and contexts, their use of the employability strategies identified in the survey phase and the roles/responsibilities of the four stakeholder groups in enhancing employability. The methodological interview approach was adapted and applied from van Manen (1997). In accordance with this phenomenological hermeneutic approach, interviewees were asked open questions about their employability-related experiences. Questions started with such phrases as, "What is it like to" and "Describe your experience of." All interviews and focus groups were recorded and fully transcribed. A minimum of two researchers independently analysed the transcripts, identifying keywords, themes and strategies/challenges/solutions to employability issues expressed by the participants. A third researcher confirmed qualitative validity through applying the narrative analysis approach of Shaddock (2014).

Results

Proposition one: Employability strategies

Responses of the four stakeholder groups were analysed to determine comparative responses to the survey questions addressing key employability strategies identified in the literature. The data was queried to determine, on average, how many of the twelve

strategies were ticked by students, graduates and higher education personnel. Overall, surveyed students and graduates indicated participating in an average of nearly five of these employability strategies and higher education personnel indicated providing/supporting an average of four of them. Seven of the twelve strategies received responses from at least 50% of respondents in one or more stakeholder groups as shown in Table 3.

Table 3. Identification of Key Employability Strategies

Strategies	Students	Graduates	Higher Education	Employers
Careers Advice	59%	47%	64%	28%
Extracurricular	48%	47%	65%	60%
Networking	49%	52%	51%	40%
PT Work	53%	53%	36%	38%
Prof Assocs	29%	37%	54%	34%
Volunte ering	47%	50%	48%	53%
Work Experience	74%	74%	40%	87%

The contributions of these strategies and how they might be realized within and across the stakeholder groups to enhance employability in the context of the 21st century experience were further interrogated by analysis of the survey written comments and during the interview phase of the research.

Thematic analysis of written comments on surveys and analysis of the interview/focus group transcriptions identified emergence of eleven themes that had impact on employability: Multi-national corporations ; Competitive sport, athletes &

employability ; Entrepreneurship; Private institutions; Career development centres;
Indigenous employment; Employability endeavours; Government; Emerging careers;
Generalist disciplines; and Graduate attributes.

As analysis proceeded it was clear that these were not entirely independent constructs but are inter-reliant in respect to their relationship(s) to the three propositions about the 21st century student experience outlined in the *Introduction*. Of particular relevance are the responses to strategies that address a student's engagement with "real" employment contexts including work experience, internships and placements. This was a highly rated strategy with 74% of students indicating on surveys that they used it and 87% of employers indicating they valued it. Although a minority of higher education personnel chose this strategy on the surveys, it must be noted that the question asked which strategies they currently use rather than those they believe to be effective. Further exploration during interviews provided evidence that higher education personnel support these strategies but often lack the resources to consistently apply them within their programs of study.

Not all engagement with employment is equally as supported – part-time work, for instance, whilst being seen as a useful strategy by students and graduates, is not seen as positively by higher education personnel and employers. These groups appear to distinguish between employment contexts that relate to the student's discipline area and provide extension of their studies in that area and those that are unrelated to their discipline. The former are more highly valued particularly if they include evidence that the student has displayed initiative in obtaining/completing the work as is evident by the high ratings of extracurricular and co-curricular activities that are voluntary in nature.

Proposition two: Literacy and communication

The use and value of social media which had been highlighted in the literature review as a potential employability strategy did not feature prominently in the stakeholder responses in the survey phase. There was no group in which a majority of respondents listed it as being important (Table 3).

Table 3. Stakeholder perspectives on the use of Social Media as an employability strategy.

Strategies	Students	Graduates	Higher Education	Employers
Social Media	33%	37%	40%	15%

Throughout the interviews, however, there were signals of growing awareness of the ubiquity of social media and the need for higher education to prepare students in ways that enable them to maximise the benefit of 21st Century skills. For example, an illustrative quote from an educator was,

“[There is a] need to train students in new skills rather than the old skills because students have to differentiate themselves from the old market.” Quote from an educator

Whereas media literacy did not emerge as a salient theme in the surveys or interviews, there were many mentions of the importance of effective, comprehensive communication skills. Related comments were articulated across stakeholder groups. The communications theme emerged most strongly among educators and then among employers. Communication was operationally defined as including written and presentation skills. The four comments inserted verbatim below are illustrative of the content of the numerous mentions of communication skills in the context of employability.

“I understand that nowadays, with social media, people just type things out and they have lower case [the word] ‘I’ – if you put lower case [the word] ‘I’ – it’s honestly not correct. Attention to detail; it’s an important part of it.” Quote from an employer

“I think writing, as well, is very important and we often underestimate its importance. We often assume it is something that students learn in the first-year composition class. I think the difference between a first-year student who has successfully completed, and a graduate who has learned how to synthesise, analyse, express succinctly and edit in a polished way is just enormous.” Quote from an educator

“It may not be the ‘straight in the face’ skills they are trying to get you to perform, but over time you will develop your presentation skills and your communication skills. It is not a crash course, rather it is slowly building your skills over three years and then in third year with professional development you will recognise ‘oh, I have already been over that in my degree.’” Quote from an educator

“Presentation skills are important, because if a student can overcome all of the anxieties around speaking up in a group it helps in an interview, it can help in meetings, it can help engage colleagues. It is a very difficult skill to teach but it is quite a good skill.”
Quote from an educator

Proposition three: Technology-enhanced learning and higher order thinking skills

The importance of “new skills” and students being able to differentiate themselves were articulated as important aspects of developing and demonstrating higher order and critical thinking skills. The importance of concepts such as critical analysis, transferable skills, innovation and capacity to learn were salient themes throughout the interviews across all stakeholder groups. The linking of technology-enhanced learning (in the context of

emergent technology provoking industry and thus career change) and the need for higher order thinking skills was most prominent among the educators. Whereas a salient theme in the literature was that education technology provided affordances that strengthened teaching capacity of critical thinking, this did not strongly emerge in this research. An illustrative quote is provided verbatim from each of the four stakeholder groups.

“Innovation and creativity sets you apart from the competition. If an employer asks ‘we want you to resolve this problem, how are you going to resolve this?’ You can give them a black and white answer, or you can work around it and show employers something that is different.” Quote from a student

“We had a compulsory subject, as part of a university industry-based learning program, that was all about information technology for communication. It was things that the employers told the university that ‘we needed to know’ for them to take us on in an internship.” Quote from a graduate

“The ability to critically analyse new information. Don’t take things at face value because it is written on the internet. But also be able to make comparisons between one type of technology or software and another.” Quote from an educator

“You need to teach them transferable skills; how to think and how to write, how to form an argument, weigh evidence. I think as an industry we are losing that. There is a lot of focus on academe of just being job-ready, and I agree with that, but you need the caveat of ‘What job?!’ because the job that you are ready for now exists, but the job you have in ten years might not [currently exist]. There needs to be an acknowledgement that the broader skills and creativity are what makes stuff happen.” Quote from an employer

Discussion

The relationship between 21st century employability and the learning experience is a key

higher education quality assurance factor. Unique attributes of the 21st century context were salient throughout the research data. In the 21st century, the graduate employment marketplace is thematically linked to what is referred to throughout international literature as the economic or financial crisis (e.g. Huayong, Zhurong, Jikun, Rozelle, & Mason, 2013). Just as there are buyers' and sellers' markets in real estate, contemporary university graduates are entering a hirers' rather than an applicants' market (Rae, 2014). Based on 2013 survey data, Graduate Careers Australia (2014) reported that graduate employability rates are the lowest they have been in twenty years. In other words, it is necessary to understand the 21st century employment context in order to support students / graduates for success. The concept of heightening employability of university students is a salient concept in the modern day university. In a context whereby graduates are not assured employment by virtue of successfully completing a university degree, the university's personalised value-add component of employability supports is particularly relevant. Furthermore, until higher education leaders identify and address the wants and needs of the 21st century student and graduate, graduate employability will not be lifted. Employers and employment are different in the 21st century; so too are graduates. The three sets of propositions emerging from a review of the literature and presented in the introduction to the paper are reconsidered here, in light of the results from the research surveys, interviews and focus groups conducted within this national Australian project.

Proposition One: Flexible, personalised education with practical, relevant, efficient learning

A review of the literature indicated that contemporary students want higher education that is flexible and personalised (i.e. layered choices about online and face-to-face study) and learning that is practical, relevant and efficient. The literature links these educational

preferences to employment outcomes in that one of the reasons why students want access to online learning is so that they are able to engage in activity other than study while enrolled in university such as working part-time jobs and participating in extra-curricular activities, and that the operational definition of *practical*, *relevant* and *efficient* is that the university degree leads to employability skills.

This proposition was strongly supported by the research data. Across the four stakeholder groups, the pervasive theme was that the purpose of university in the 21st century is to prepare graduates for employment. No challenges to this perception were articulated. The rationale for flexibility and personalisation articulated across all four stakeholder groups was that technological advancements are changing the nature of the labour market and universities must therefore be agile and responsive in order to practically prepare graduates for career success. Students were clear that they want personalised supports to identify career pathways. They do not want to be confined to bundled degrees with set curricular units and confining time-tables. They want to be able to take only the specific units they will need to prepare them for graduate employment. Across the stakeholder groups, there was vocal support for flexibility. Numerous employers expressed a belief that universities are confined by long-standing structures and systems and are not “keeping up with the times” to adequately prepare students for graduate employability. While educators agreed, they also expressed worry about the barriers to broad-reaching systemic change. Furthermore, students want personalised offerings so that they can take some of their subjects through a regular time-tabled semester and others through intensives and/or online. Course delivery flexibility also means that students have time to engage in pursuits beyond the formal curriculum.

A salient theme across all four stakeholder groups was a belief that a degree on its own is not adequate preparation for employment. There was widespread agreement that to

be employable, students must have pursued other experiential avenues beyond course-based study. There was united support for internships, placements and work experience as a primary means of gaining employability experience while in the role of student.

Educators expressed a concern over the resources (human and financial) required to support this strategy, but expressed a belief that overcoming these constraints is a higher education priority because of this strategy's employability efficacy. Perceptual discrepancies between stakeholder groups were revealed in regard to other employability strategies. For example, whereas a majority of students and graduates expressed a belief that part-time work is a worthwhile employability pursuit, higher education personnel (educators and career development professionals) and employers believe that students are better advised to participate in extra-curricular activities such as sport, clubs and societies and to reflect on the ways in which these activities experientially support the development of employability soft-skills. A salient theme overall was that employability needs to be a higher education priority and that all stakeholders have a role to play in ensuring that graduates are well-placed to meet the needs, adapt, change and thrive in a challenging and changing 21st century labour market.

Proposition Two: Importance of literacy (including media) and communication

The second identified theme in the published literature is that the predominance of social media in the 21st century has both heightened the need for media literacy and weakened overall literacy, as youth tend not to acknowledge the importance of consistent written conventions such as spelling and punctuation across all forms of communication. The associated employment proposition is that it is incumbent upon higher education to instil media (and comprehensive) literacy so that graduates are employable.

Notably, a minority of survey respondents (across all four stakeholder groups) ticked the provided social media employability strategy. This research result was queried with experts, particularly career development professionals. The main interpretation was that social media such as LinkedIn are only starting to be accepted as viable and valuable employability tools. Experts believe that this research result would be different if the survey were to be replicated in a few years.

Whereas the specific use of social media did not emerge as a strongly supported employability strategy, the communication attributes associated with social media were saliently vocalised. Educators and employers expressed a shared worry that students and graduates largely communicate in informal ways, giving little thought to spelling, grammar and punctuation. These stakeholders believe that there has been a corresponding slide in communication skills which impairs the quality of job applications and an inability and/or lack of appreciation for the importance of formal professional communication. Notably, some employers and educators acknowledged that definitions of “effective communication” are fluid and changing. Others addressed communication in the context of digital foot-prints, worrying that too many students put themselves in compromising situations and that associated images will have a deleterious effect on these graduates’ employability. The students and graduates themselves did not speak about formal and informal communication in the context of social media. They did, however, give frequent mention to the importance of learning practical employability skills such as report writing and presentations.

Proposition Three: Technology-enhanced learning and higher order thinking skills

The third proposition emerging from the literature was that the 21st century makes

heightened learning possible, in that students have access to nearly limitless information and can access it prior to reporting to class, so that teaching time can focus on strengthening application and connected knowledge. Priority and development of higher order thinking skills heightens graduate employability. The importance of these skills is highlighted by all stakeholder groups and consequently there is scope to explore strategies using technology-enhanced learning to facilitate embedding of approaches to developing these skills within higher education programs.

This proposition was strongly supported through the research. Employers were particularly vocal about the importance of broad-based employment preparation. Multiple employers used the metaphor of the uppercase letter T. These research participants said that it is important that universities avoid a narrow, disciplinary focus (represented by the vertical portion of the letter T). Instead, graduates should be supported to achieve a broad-based and far-reaching experience (represented by the top horizontal portion of the letter T). Across stakeholder groups, participants acknowledged that particularly in the 21st century, the workplace and the overall employment contexts are changing. Research participants were unified in the belief that students need experiential variety to draw-upon to be resilient and to be able to think on their feet to adjust and adapt.

Conclusion

The Australian national research reported in this paper supports the 21st century propositions that have emerged in the published literature. In the 21st century, there is a dominant employability focus creating heightened expectation of higher education. Research participants acknowledged a continued economic and financial crisis which means that university graduates experience increased difficulty securing suitable employment. Furthermore, technological developments mean changes to career types,

trends, roles, responsibilities and expectations. There is widespread recognition that participation in the 21st century labour market requires resilience and agility. Research informants across stakeholder groups, including educators, expressed a belief that it is incumbent upon universities to creatively and enthusiastically support graduate employability. The strategy set that emerged with the strongest support were internships, placements and work experience. Participants expressed that these strategies provide students with industry connected experiences to draw-upon. Furthermore, across stakeholder groups, a salient theme was that in order to support employability, the university experience must be broad-based and far-reaching; students in the 21st century must be encouraged to do more than study in order to prepare for graduate employability.

The acknowledged limitation of this research was the lower proportion of surveyed and interviewed employers as compared to the other stakeholder groups (students, graduates and higher education personnel including both educators and career development professionals). Further research is recommended to confirm employer agreement with the identified themes.

References

- Amicucci, A.N. (2014). How they really talk. *Journal of Adolescent & Adult Literacy*, 57(6), 483-491.
- Aman, M., & Sitotaw, M. (2014). Perception of summer cooperative graduates on employers generic skills preference. *International Journal of Instruction*, 7(2), 181-190.
- Daily, C.M., Farewell, S., & Kumar, G. (2010). Factors influencing the university selection of international students. *Academy of Educational Leadership Journal*, 14(3), 59-75.
- Freeman, G.G., & Wash, P.D. (2013). You can lead students to the classroom, and you can make them think: Ten brain-based strategies for college teaching and learning success. *Journal on Excellence in College Teaching*, 24(3), 99-120.
- Graduate Careers Australia (2014). *Graduate destinations 2013: A report on the work and study outcomes of recent higher education graduates*. Melbourne, VIC: Graduate Careers Australia.
- Green, M. (2012). Designing a web-based laboratory class to engage 21st century learners. *Journal of Applied Learning Technology*, 2(2), 24-28.
- Harvey, N., & Shahjahan, M. (2013). *Employability of Bachelor of Arts graduates* (Final report). Sydney: Office for Learning and Teaching. Retrieved from: http://www.olt.gov.au/system/files/resources/CG9_1156_Harvey_Report_2013_1.pdf
- Hinchliffe, G.W., & Jolly, A. (2011). Graduate identity and employability. *British Educational Research Journal*, 37(4), 563-584.
- Holmes, L. (2013). Competing perspectives on graduate employability: Possession, position or process? *Studies in Higher Education*, 38(4), 538-554.

- Horspool, A., & Lange, C. (2012). Applying the scholarship of teaching and learning: Student perceptions, behaviours and success online and face-to-face. *Assessment & Evaluation in Higher Education*, 37(1), 73-88.
- Huayong, Z., Zhurong, H., Jikun, H., Rozelle, S.D., & Mason, A.D. (2013). Impact of the global financial crisis in rural China: Gender, off-farm employment, and wages. *Feminist Economics*, 19(3), 238-266.
- Hung, D., Shu-Shing, L., & Lim, K.Y.T. (2012). Teachers as brokers: Bridging formal and informal learning in the 21st century. *Journal of Educational Policy*, 9(1), 71-89.
- Irvine, V., Code, J., Richards, L. (2013). Realigning higher education for the 21st-Century learner through multi-access learning. *Journal of Online Learning and Teaching*, 9(2), 172-186.
- Kim Lian Chan, J. (2011). Enhancing the employability of and level of soft skills within tourism and hospitality graduates in Malaysia: The issues and challenges. *Journal of Tourism*, 12(1), 1-16.
- Kinash, S. (2008). *Literature reviews*. Retrieved from:
https://www.academia.edu/9018658/Literature_reviews
- Kinash, S. (2011). Next generation of what. *Education Technology Solutions*, 44, 52-54.
- Kinash, S., Wood, K., & Knight, D. (2013). Digital immigrant teachers and digital native students: What happens to teaching? *Education Technology Solutions*, 54, 56-58.
- Knight, P., & Yorke, M. (2004). *Learning, curriculum and employability in higher education*. London: RoutledgeFalmer.
- Lambert, J., & Cuper, P. (2008). Multimedia technologies and familiar spaces: 21st-century teaching for 21st-century learners. *Contemporary Issues in Technology & Teacher Education*, 8(3), 264-276.

- Moody, J., Stewart, B., & Bolt-Lee, C. (2002). Showcasing the skilled business graduate: Expanding the tool kit. *Business Communication Quarterly*, 65(1), 21-36.
- Mundt, M., & Medaille, A. (2011). New media, new challenges: The library and multimedia literacy in higher education. *International Journal of Technology, Knowledge & Society*, 7(2), 49-59.
- Nagarajan, S., & Edwards, J. (2014). Is the graduate attributes approach sufficient to develop work ready graduates? *Journal of Teaching and Learning for Graduate Employability*, 5(1), 12-28.
- Nichols, M. (2012). Using digital video production to meet the common core standards. *Language and Literacy Spectrum*, 22, 52-55.
- O'Connor, E., McDonald, F., & Ruggiero, M. (2014-2015). Scaffolding complex learning: Integrating 21st century thinking, emerging technologies, and dynamic design and assessment to expand learning and communication opportunities. *Journal of Educational Technology Systems*, 43(2), 199-226.
- Pastore, R., & Carr-Chellman, A. (2009). Motivations for residential students to participate in online courses. *Quarterly Review of Distance Education*, 10(3), 263-277.
- Prensky, M. (2012). *From digital natives to digital wisdom: Hopeful essays on education*. London: Sage.
- Rae, D. (2007). Connecting enterprise and graduate employability: Challenges to the higher education culture and curriculum? *Education & Training*, 49(8-9), 605-619.
- Rae, D. (2014). Graduate entrepreneurship and career initiation in the 'New Era' economy. *Journal of General Management*, 40(1), 79-95.

- Tate, P., Klein-Collins, R., & Steinberg, K. (2011). Lifelong learning in the USA: A focus on innovation and efficiency for the 21st century learner. *International Journal of Continuing Education & Lifelong Learning*, 4(1), 1-23.
- van Manen, M. (1997). *Researching lived experience: Human science for an action sensitive pedagogy*. London, Ontario, Canada: Althouse.
- Walkington, H. (2014, April). *Enhancing the STEM student journey: Students as researchers*. Keynote presentation to the HEA STEM Annual Learning and Teaching Conference 2014, Edinburgh, Scotland.
- Yorke, M. (2006). *Employability in higher education: What it is – what it is not*. Retrieved from: <http://www.heacademy.ac.uk/node/3263>
- Yorke, M. (2010). Employability: Aligning the message, the medium and academic values. *Journal of Teaching and Learning for Graduate Employability*, 1(1), 2-12.
- Yorke, M., & Knight, P. (2006). Curricula for economic and social gain. *Higher Education*, 51(4), 565-588.
- Young, J.S. (2012). Linking learning: Connecting traditional and media literacies in 21st century learning. *Journal of Media Literacy*, 4(1), 70-81.