Business graduate performance in oral communication skills and strategies for improvement.

Denise Jackson, Edith Cowan University

Available at: https://works.bepress.com/denise_jackson/17/
BUSINESS GRADUATE PERFORMANCE IN ORAL COMMUNICATION SKILLS AND STRATEGIES FOR IMPROVEMENT

ABSTRACT

Global competitiveness and increased knowledge sharing have accelerated the importance of oral communication skills in today's graduates. Accordingly, oral communication dominates assurance of learning standards and is frequently cited as one of the most desired graduate employability skills. Previous research, typically focused on employer perceptions, largely indicates graduate oral communication skills do not meet industry expectations. This study investigates how 674 recent business graduates perceived their own capabilities in oral communication skills, noting variations by background/demographic characteristics. Overall, business graduates rated their capabilities in oral communication highly although mean ratings for the 14 sub-behaviours varied. Certain sub-behaviours varied with graduate age and time spent working since graduation. Findings suggest a disparity between graduate and employer perceptions on the standard of oral communication skills upon graduation. Participants also considered the effectiveness of different learning activities for developing oral communication skills during their undergraduate studies. Popular learning activities were individual/group presentations and small group projects. The number of activity types engaged in during degree studies did not significantly impact perceived capabilities and only peer feedback, individual and group presentations caused significant variations in certain sub-behaviours. Despite graduates reporting opportunities for a wide range of learning activities, these are not always effective. Strategies for education and professional practitioners for enhancing graduate oral communication skill outcomes are discussed.

KEYWORDS

Oral communication; graduate; skill development; curriculum design; employability
1. INTRODUCTION

Employability skills, often referred to as generic, core, professional or non-technical skills, continue to attract considerable attention and resourcing in the tertiary education sector. These skills are a consistent and increasing concern in student learning in higher education (HE) generally, as well as in business fields specifically. Now an essential component of the graduate toolkit, they are considered more important than technical expertise in the recruitment and selection of new graduates (Australian Association of Graduate Employers [AAGE], 2011; Confederation of Business Industry [CBI], 2011). They comprise a broad range of skills which enable graduates to effectively and innovatively apply their technical expertise in the workplace. Although there is some discussion of whether the required skill sets vary by discipline and cultural context (see Jones, 2012; Tempone et al., 2012); team work, communication, self-management, data analysis, critical thinking and problem solving skills are typically deemed important in graduates in developed economies (AAGE, 2011, CBI, 2011; Hart, 2010).

Communication typically dominates skill frameworks and is believed by employers in developed economies to be one of the most important skill sets in new graduates (Council for Industry and Higher Education [CIHE], 2011; Graduate Careers Australia [GCA], 2012; Rosenberg, Heimler & Morote, 2012). The skill set – encompassing both oral and written communication - is comprehensive as business today requires graduates to communicate virtually, face-to-face, informally and formally on a national and international basis with a multi-cultural and multi-generational audience. Despite being cited as the most sought after skill set, it is considered by some to be most lacking in recent graduates (National Association of Colleges and Employers [NACE], 2010).

Previous studies have typically focused on employer perceptions of graduate workplace performance and the growing importance of oral communication, with relatively little attention to
graduate perspectives. Given ambiguity among stakeholders on the precise meaning of employability skills (Barrie, 2006), and their manifestation in the workplace, it is important to also explore graduate perceptions of their performance in these skill areas. This study aims to investigate how recent business graduates perceive their own capabilities in oral communication and which learning activities developed their skills to assist in devising and implementing effective curricular interventions. Research objectives are to (i) measure oral communication skill capabilities in recent business graduates; (ii) identify any variations in oral communication skills by background/demographic characteristics and learning activities completed at university; and (iii) identify learning activities most used to develop oral communication skills. The paper is structured to first review relevant literature, followed by an outline of methodology, presentation and discussion of results and, finally, consideration of implications for stakeholders in undergraduate education.

The study is set in Australia with responses gathered from 674 business graduates across all 39 Australian universities. As Australia shares similarities in culture and historical skill development initiatives, problems and cited gaps with many developed economies, findings may be generalised. Distinct cultural differences between Western and Eastern teaching in undergraduate business programs (Zhu, Iles & Shutt, 2011) and an overall lack of understanding of the impact of geographical and cultural differences on skill requirements and development (Velde, 2009) means findings may not necessarily be applied to less developed regions worldwide. Emerging research on industry dissatisfaction with graduate oral communication skill sets in these regions, however, may render findings of interest.

2. BACKGROUND

2.1 Employability skills

The emergence of employability skill development in HE has followed a similar pattern across several developed economies, particularly those considered culturally-similar such as North America, UK,
Australia and certain parts of Europe. The conception of employability skills has been central to education strategies and practice for several years (Bowman, 2010) yet the focus on HE’s role in producing work-ready graduates has grown in recent times, highlighting the need for explicit employability skill development in undergraduate programs. Rapid changes in technology, increased knowledge sharing and strong global competitiveness, particularly from developing economies such as India and China (Department of Innovation, University and Skills [DIUS], 2008), have prompted industry calls for graduates who are enterprising, adaptive and can work in teams, manage cultural diversity, problem solve and think critically.

Government acknowledgement of the need to up-skill graduates has prompted education reviews, such as Australia’s West Review (Department of Education, Training and Youth Affairs, 1998) and the UK’s Dearing report (Dearing, 1997), on the need to develop undergraduate employability. These reviews have accentuated the need to guide HE providers on implanting skill outcomes into undergraduate programs. With varying lead times, the initial focus was on constructing national skill frameworks which articulate those skills required by industry. Australia’s national framework (Department of Science and Training [DEST], 2002) defines eight skill groupings which are considered generic across different sectors. Concerns for differing stakeholder perceptions of the precise meaning of the framework’s skill groupings due to ambiguous terminology (Taylor, 2005), in addition to its currency given the rapid changes in technology and working practices, impede effective utilisation of the framework.

A more recently commissioned framework provides more detailed skill descriptors on the core skills for employment but is not yet mandated in Australian education sectors (Department of Education, Employment and Workplace Relations [DEEWR], 2012). Other prominent skill frameworks articulating what constitutes a work-ready graduate include the New Zealand Qualifications Framework (New Zealand Qualifications Authority [NZQA], 2011); the Framework of Qualifications...
for the European Higher Education Area (European Higher Education Area [EHEA], 2010), and the UK’s Quality Code for Higher Education (Quality Assurance Agency for Higher Education [QAA], 2012a).

In Australia, HE institutions are required to develop their own set of ‘graduate attributes’ which encompass the skills defined in the national framework and any capabilities, skills and traits considered relevant to their own institutional context. Although the Business, Industry and Higher Education Collaboration Council [BIHECC]’s (2007) review of Australian HE institutions indicated this was largely the case, others maintain implementation is not consistent with some providers progressing little beyond surface mapping strategies and recommended policy statements (Barrie, 2006). Beyond Australia, employability skill outcomes are integral to the international undergraduate program accrediting body of Association to Advance Collegiate Schools of Business [AACSB] and the QAA (Gersten, 2012). At each degree qualification level, there are also specific guidelines on the employability skill outcomes which Australian, US and UK students should be able to demonstrate in the Australian Qualifications Framework (Australian Qualifications Framework Council [AQFC], 2011); Degree Qualifications Profile (Lumina, 2011) and the Framework for HE Qualifications in England, Wales and Northern Ireland FHEQ] (QAA, 2008) respectively.

2.2 Oral communication

Among desired skills and attributes, communication is often the dominant issue, both generally and in business specifically. Communication determines academic (Lees, 2002) and career and organisational success (Du-Babcock, 2006); its importance acknowledged by academics (Holtzman & Kraft, 2011) and students (Andrews & Russell, 2012) although the latter to a lesser degree than employers (DuPre & Williams, 2011). Emerging research on graduate employability indicates communication skills are equally important in less developed regions such as India (Blom & Saeki,
2011) and China (Zhu et al., 2011) and within business, communication is critical for successful job performance (Conrad & Newberry, 2011) and organisational achievement (Duke, 2011).

The importance of graduate ability to communicate effectively is prominent in professional accreditation criteria, such as the Institute of Chartered Accountants Australia and CPA Australia (ICAA/CPA Australia, 2009), and is strongly advocated by AACSB members (English, Manton & Walker, 2007). In fact, expertise in communication skills dominates their assurance of learning standards in curriculum management (AACSB, 2012). The new Australian Qualifications Framework (AQFC, 2011) stipulates that “graduates of a Bachelor Degree will have ... communication skills to present a clear, coherent and independent exposition of knowledge and ideas” (p. 37). Australian academic teaching and learning standards for certain business degrees (Australian Learning and Teaching Council [ALTC], 2010), developed through collaboration among academics and industry partners, include communication skill outcomes. Further, in the UK, the recent drive for developing entrepreneurial effectiveness in new graduates acknowledges the important role of communication in ensuring graduates are able to network, negotiate, build trust and articulate ideas and information within industry (QAA, 2012b).

Precisely which elements of the oral communication skill set are most required by industry has been subject to considerable review (Conrad & Newberry, 2012; Gray & Murray, 2011); impeded by ambiguities in the exact meaning of the skill components, a problem common to many targeted employability skills (Barrie, 2006). Conrad and Newberry suggest some disconnect between academic and industry interpretations of what constitutes communication and the priority of its different elements. They note the importance of identifying broad constructs to frame the skill set, in addition to detailed skill descriptors to articulate precisely what oral communication entails (Jackson & Chapman, 2012). This will better enable the successful teaching, learning and assessment of the skill set in HE and will impart to stakeholders expected skill outcomes upon graduation. Key
foci of oral communication is graduate ability to give and receive feedback, speak publicly, participate in meetings and verbally communicate with others in an effective manner (Jackson & Chapman, 2012).

2.2.1 Skill development

Considerable literature on how to best develop undergraduate employability skills has emerged in recent years, some focusing specifically on oral communication skills (Chan, 2011; Kerby & Romine, 2010). Morreale and Pearson (2008) argue that although individuals are born with the ability to vocalize, they must learn – and be taught – the skills to communicate effectively and appropriately with others. Although embedding skill outcomes into core, disciplinary content is the favoured approach (Bowman, 2010); stand-alone programs which explicitly develop employability skills continue to emerge.

Business simulation and role plays (Avramenko, 2012; Newberry & Collins, 2012); study/discussion groups (Sinka & Kane, 2011); cooperative learning in small groups with individual accountability (Ballantine & McCourt Larres, 2007), in-class presentations (Stowe, Parent, Schwartz & Kendall, 2010; Van Auken, Wells & Borgia, 2009), and student-led case studies (Chan, 2011) are each considered effective ways of developing effective oral communication skills. Chan recommends introducing communication skill development early into undergraduate programs; building on De La Harpe et al.’s (2009) argument that inclusion in a capstone experience – typically towards the end of degree programs - is inadequate. Further, providing adequate access to a quality virtual learning environment is important for nurturing communication skills (Andrews & Russell, 2012).

2.2.2 Skill assessment

In addition, the assessment of employability skills poses challenges for educators due to ambiguities in skill definitions and addressing the required shift from assessing outcomes to formatively
assessing the process of learning skills. Communication is particularly difficult to measure as it spans many academic and workplace tasks (Allen & van der Velden, 2005) and is interrelated with other skills, particularly team work (Casner-Lotto & Barrington, 2006; Lowden, Hall, Elliot & Lewin, 2011). Components of the oral communication skill set are considered less tangible than others and it is therefore considered one of the more difficult employability skills to assess (Stone & Lightbody, 2012). Although undergraduate self-assessments – such as skill audits – are extremely valuable (Hughes & Jones, 2011), undergraduates must rate accurately for these activities to hold value. An online dialogue between facilitators and students on defined benchmark performance, in combination with feedback and moderation, should improve the accuracy of self-assessment (Boud, 1989; Hawkins, Osborne, Schofield, Pournaras & Chester, 2012). This may also assist with peer assessment activities, particularly the use of online self/peer assessment tools, for evaluating team working processes in small group environments (see Tucker, 2011).

Another method of assessment is the skills portfolio – electronic or otherwise – which documents undergraduate performance in sub-behaviours and provides a valuable tool for imparting ability to employers (Oliver & Whelan, 2011). Undergraduate understanding of the importance of, and ability in, showcasing their achievements to stakeholders in a concise and effective way is essential; the responsibility for fostering this ability to synthesise falls squarely on the academics introducing portfolio initiatives. Emerging methods of assessment include the development of holistic rubrics and skills portfolios (Oliver, 2011); skills auditing (Baker & Henson, 2010; Horn, Murray, Armstrong & Rodriguez-Falcon, 2012); self and peer assessment activities (De Grez, Valcke & Roozen, 2012) and written tests (Hughes & Jones, 2011). The US’ National Communication Association [NCA] provides resources on the assessment of oral communication skills in all education sectors (Morreale, 1996). Attention should also be paid to constructively aligning the assessment of oral communication skills with learning activities (Biggs, 2006).
2.2.3 Skill outcomes

Despite the considerable resourcing of and research on skill development, there is evidence of significant gaps between industry expectations and HE provision in oral communication skills in developed economies (Gray & Murray, 2011; Hancock et al., 2009; Hart, 2010). Deficiencies in graduate oral communication skills also extend to developing economies (Middlehurst & Woodfield, 2004; Stivers, Adams & Lui, 2007; Velde, 2009). The oral communication skill gap negatively impacts on job satisfaction (Jusoh, Simun & Chong, 2011) and can significantly impede job performance, combining to substantially reduce organisational productivity and adaptability (Duke, 2011). Hart’s study of US employers indicated that today’s graduates have weaker communication skills than previous generations and although employers felt universities were developing certain employability skills better, communication was not one of them. Although Goldfinch and Hughes’ (2007) review of literature surmised a lack of confidence in oral communication skills does not impact on academic performance, it did adversely affect attrition rates. It is important to note that despite significant evidence of dissatisfaction with graduate oral communication skills, GCA (2012) found the vast majority of employers felt graduate verbal communication skills met their average expectations with a growing proportion of employers stating they exceeded them.

Some believe communication skill gaps exist due to disparity in academic and industry perceptions of how communication skills are important in graduates; academics emphasising theories and models and employers focusing instead on practical outcomes (Conrad & Newberry, 2011). To better service the needs of industry, many argue that business education should focus on expected standards and operational use of skills, rather than abstract principles and underpinning theory (Du-Babcock, 2006; Pfeffer & Fong, 2002). Research on the learning and transfer of knowledge and skills across contexts, however, emphasises the importance of ensuring undergraduate understanding of underlying theory and principles to targeted skills (Billing, 2007). Freedman, Adam and Smart (1994) emphasise the disparity between student performance in academic and work contexts, despite
efforts to emulate the professional environment. Further, De La Harpe and David (2012) highlight
the need for a more student-centred approach to developing employability skills with less emphasis
on outcomes and more on the process of acquiring skills effectively. Employers lament a lack of
attention to oral communication skills in undergraduate curricula (Holtzman & Kraft, 2011); arguing
current offerings are inadequate (Courtis & Zaid, 2002; De Lange, Jackling & Gut, 2006). There is
evidence that students believe there is a significant gap between the importance of oral
communication and the time dedicated to its development time in degree studies (Kavanagh &
Drennan, 2008).

Although 70% of employers would like more effective development of employability skills (CBI,
2011), it is important that stakeholders acknowledge graduate work-readiness is a collective
responsibility (Bowman, 2010). The benefits of professional and authentic learning (Lawson,
Fallshaw, Papadopoulos, Taylor & Zanko, 2011), student-centred or problem-based learning (see
Joham & Clarke, 2012) and work-integrated learning [WIL] practices such as internships and
sandwich degree programs (Billet, 2011) in undergraduate skill development are well documented,
particularly for communication (Walgran, 2010).

Up-skilling graduates, and facilitating the successful transfer of skills from university to the
workplace, is a responsibility shared by educators and industry and each must contribute to the
effective development and assessment of skills. Academics must challenge resistance to
collaborating with industry on learning and assessment design, any concerns for the de-valuing of
education far outweighed by insight into how communication is practised and performance
managed in the workplace (Yu, 2010). Further, appraising the suitability of academic staff
responsible for developing skills (see De La Harpe & David, 2012) and whether to embed skill
outcomes into core curricula or implement a stand-alone program require careful consideration.
The Browne Review criticises the performance of UK universities’ efforts in producing graduates with the required mix of skills to meet industry needs, suggestions for reform focusing on enabling students to make more informed choices through the provision of employment data, professional body recognition and average salaries of graduating students from different programs (Browne, 2010). Annual data ranking universities according to a range of outcomes are commonplace in the UK, Australia and US; employment prospects forming part of each institution’s reported data. Other objective measures of employability skill outcomes are course review portfolios and mapping exercises (Oliver, 2011) at an institutional or faculty level. The Assessment of Higher Education Learning Outcomes [AHELO] project (Organisation for Economic Co-operation and Development, 2010) is attempting to define and measure common skill outcomes for HE worldwide. The importance of and current momentum in assessing skill outcomes appears to be growing; the graduate perspective no less important than other stakeholders such as education and professional practitioners.

3. METHOD

3.1 Participants

The demographic and background characteristics of the 674 business graduates participating in the study are summarised in Table 1. All participants were based in Australia and working in a full-time role. Of the sample, 88% completed business/commerce first degrees and the remainder a mix of disciplines – such as Finance, Accounting, Marketing and Management – within the field of business. In regard to university type, the Group of Eight (Go8) universities are a coalition of leading HE institutions in Australia, synonymous with the US’ Ivy League.

[INSERT TABLE 1]

3.2 Procedures

Data was gathered on business graduate perceptions of their oral skill capabilities using an online survey. Graduates from a range of different industries were invited to participate in the study
between April and June 2012 in three ways. First, through direct contact with those managing graduate programs in organisations identified on AAGE and GCA websites. Second, through participating university alumni offices with details disseminated via direct mail and/or social networking and career web pages. Third, through professional associations who publicised the survey to members via direct mail and/or advertisements in electronic newsletters.

3.3 Instrument

3.3.1 Capabilities in oral communication

The survey initially gathered data on relevant background and demographic characteristics (see Table 1). The next section gathered data on capabilities in the oral communication skill set. Measures in the survey instrument derive from Jackson and Chapman’s (2012) competency framework of twenty skills and 45 constituent behaviours identified as essential in business graduates. Their framework was based on an extensive review of literature on industry-required competencies in new business graduates (Jackson, 2010). Jackson and Chapman’s framework has been contextualised for an undergraduate learning program which explicitly develops employability skills in an Australian university and defines a communication skill set comprising five different behaviours (one of which applies to written communication). Of the four remaining behaviours, sub-behaviours have been developed for each through literature review and reference to standard rubrics for graduate communication skills from the American Valid Assessment of Learning in Undergraduate Education (VALUE) project (Rhodes, 2010) and Assuring Graduate Capabilities (AGC) project (Oliver, 2011). These 14 sub-behaviours comprise the measures for oral communication in the survey (see Table 2).

[INSERT TABLE 2]
Each candidate was asked to rate, on a scale of 1 to 7, the level which best describes their ability to perform each sub-behaviour upon graduation. A rating of one indicates an inability to perform and seven an expert who is able to teach the sub-behaviour to others. Alpha coefficients for the items were .844 for verbal communication; .652 for feedback; .938 for public speaking and .788 for meeting participation. Although the threshold value of .70 is widely considered an indicator of reliability, alpha values exceeding .60 are acceptable in exploratory studies (Hair, Black, Babin, & Anderson, 2010). The framework of four behaviours and 14 sub-behaviours is considered a valid and reliable measure of oral communication, attributed to its development from established sources on industry requirements of new business graduates.

3.3.2 Popularity and effectiveness of learning activities

Finally, graduates were asked to select which learning activities they engaged in at university to develop their oral communication skills. They were given a range of options from which they could make multiple selections, in addition to an ‘Other’ option with an area for further explanation. Listed learning activities were identified through literature review and practical experience in facilitating on units specifically dedicated to the development of communication skills. Further, graduates were asked to state whether they had completed WIL as part of their degree studies.

3.3.3 Limitations

The study is based on graduate self-assessments of their own capabilities in the defined oral communication sub-behaviours. Although there are relevant and valid concerns for bias with self-assessed data (De Grez et al., 2012), hearing the graduate voice will identify any gaps with employer perceptions and/or provide evidence demonstrating that students’ self-reported skill level corresponds to an external measure. Further, the study is also using a self-selected population which may skew findings as those who value oral communication or who have higher confidence levels in
their capabilities may respond. Further, graduates are being asked to rate their ability at the point of graduation which may cause inaccuracy due to ‘recall error’. Given the procedures for recruiting graduates, it is not possible to report a specific response rate which may better contextualize the findings against the population surveyed.

4. RESULTS AND DISCUSSION

4.1 Oral communication capabilities

The minimum, maximum, mean and standard deviation (SD) scores for the sub-behaviours, as well as an average composite score for the behaviours, are presented in Table 3. Overall, the business graduates rated their capabilities in oral communication highly, aligning with DuPre and William’s (2011) study which found undergraduates were confident in their abilities to communicate effectively. The lowest mean was 4.48 for the provision of quality feedback. Given the growing use of formative assessment relying on peer feedback in the university classroom (Gielen, Dochy, Onghena, Struyven & Smeets, 2011), this result is disappointing yet aligns with documented difficulties in undergraduates providing quality feedback (Gray & Murray, 2011). This problem is further impacted by evidence of undergraduates being unable to accurately assess – in relation to facilitators - their own performance (Patri, 2002) and their peers (Dochy, Segers & Sluijsmans, 1999). Conversely, the sub-behaviour of giving and receiving respectful feedback while being mindful of other’s feelings achieved the second highest mean score of 5.50, perhaps attributed to the increasing multi-generational and multi-cultural mix at university (Caulfield & Aycock, 2011) and the growing use of group projects where team members are expected to demonstrate respect for others, among other behaviours.

LIST TABLE 3

Listening skills also feature as a highly rated sub-behaviour with a mean score of 5.21. These are extremely valued by employers (Gray & Murray, 2011); a vital aspect of the business communication
There is evidence, however, indicating deficiencies in graduate performance in effective listening skills in the workplace (Stone & Lightbody, 2012) and a lack of attention in undergraduate curricula (Wolvin, 2012). Public speaking is comparatively weak with all sub-behaviours featuring in the lower half of ranked mean scores and achieving the lowest composite mean score (4.75) across all four behaviours. Areas of greatest concern are delivery techniques and articulating a compelling and central message in public speaking. Stowe et al. (2010) note that despite their critical role in competing for clients and gaining credibility in the marketplace, deficiencies are commonly cited among employers. Wolvin’s review of oral communication skill provision in HE identifies it as central to most US communication courses, yet Stowe et al. argue it is still an area requiring greater focus in undergraduate curricula.

Meeting participation achieved the highest composite mean score (5.06) across the four behaviours although there were distinct differences in mean ratings among the sub-behaviours. Contribution and value had significantly lower mean scores than attendance and listening with both pairs appearing at either end of the ranked mean table. Graduate ability in participating effectively and constructively in meetings is important (Field, 2001; Scott & Yates, 2002). For most undergraduates, this will involve small group project meetings, attendance of which is actually cited as problematic due to increasing work commitments in today’s undergraduates (O’Farrell & Bates, 2009). Finally, mean scores for the language and expression sub-behaviours for both public speaking and verbal communication are relatively low at 4.68 and 4.76 respectively. Correct vocabulary, grammar and the ability to communicate ideas coherently and with appropriate tone and expression are vital in graduates (Christensen, Barnes, Rees & Calvasina, 2005). This aligns with documented concerns for the modern graduates’ proper use of vocabulary (Gray & Murray, 2011) and undergraduate proficiency in spelling and grammar (Andrews & Russell, 2012).

4.2 Variations in oral communication skills by background characteristics
Multivariate analysis of variance (MANOVA) detected significant variation in perceived capability in sub-behaviours for only two of the demographic/background characteristics summarised in Table 1. First, a significant interaction was recorded for age, $\lambda=.885$, $F(56, 2553.873)=1.460$, $p=.015$, partial $\eta^2=.030$. Significant results for univariate ANOVAs, at a Bonferroni adjusted level of $\alpha=.004$, are summarised in Table 4. Tukey post-hoc tests ($\alpha=.05$) showed the oldest age group (31+ years) assigned significantly higher scores to the verbal language and expression sub-behaviour than those age groups below 28 years. This theme continues with the oldest age group assigning significantly higher scores than most, or all, younger ones for all the sub-behaviours with the exception of public speaking central message. Here, the oldest age group was significantly higher than only one other younger age group. Overall, these findings suggest that a graduate’s age positively varies with their perceived ability in certain aspects of oral communication. This is interesting as younger graduates are often considered to have self-inflated perceptions of their own abilities and are critiqued by employers as lacking in humility (Shaw & Fairhurst, 2008).

[INSERT TABLE 4]

Second, there was a significant variation in reported capabilities for the total time spent working since graduation, $\lambda=.913$, $F(28, 1316)=2.187$, $p=.000$, partial $\eta^2=.044$. Interestingly, the trend across all sub-behaviours was that those with less time served in the workplace considered themselves more capable than their more experienced counterparts. For all sub-behaviours except verbal communication purpose and audience and feedback quality, the reported significant difference in ratings applied only to the least and the most experienced groups. For the excepted sub-behaviours, those with one year or less experience in the workplace were significantly higher than both the groups with more experience.

Overall, this indicates that graduates with less work experience since graduation believe they are more capable in oral communication than those with more. Importantly, there was not an
equivalent effect for time elapsed since graduation, suggesting a direct interaction with work experience not time. Again, high self-importance upon graduation may provide some explanation; downscaling perceived capability to a more accurate and realistic estimation as they undertake tasks and interact with experienced colleagues in the workplace. Interestingly, a significant variation was not detected for sex, conflicting with Wilton’s (2011) study of almost 10,000 UK graduates which found female graduates reporting better development of spoken communication skills than their male counterparts.

4.3 Learning activities for developing oral communication skills

Table 5 summarises the learning activities and numbers of graduates which engaged in each during their degree studies. Aligning with literature, popular learning activities for developing oral communication skills are individual and group presentations and small group projects. Almost half of the business graduates participated in peer feedback activities; aligning with the growing focus on peer interaction and evaluation in the university classroom. Less than a third of business undergraduate programs used simulations and role plays; virtual online meeting tools and case studies proved reasonably popular, as did study and/or discussion groups. Participants were also asked to identify any other learning activities used to develop communication skills in their degree program. Class debates and discussions and business competitions were cited by a very small number of graduates, the latter proven to enhance communication skills (Jones & Jones, 2011). An average of 4.86 activities were completed by participants, including those volunteered by participants, with a standard deviation of 1.92.

[INSERT TABLE 5]

4.3.1 Variations in ratings by learning activities

MANOVA (α=.05) indicated no significant difference in perceived capabilities in the sub-behaviours by the number of learning activity types they engaged in (p=.763), indicating that a small number of activities may be equally as effective for student learning as a wide range. A series of Wilcoxon-
Mann-Whitney two sample rank-sum tests, at a Bonferroni-adjusted $\alpha=.004$, was conducted to detect any variation in sub-behaviour ratings by learning activities undertaken at university. Significant results are presented in Table 6 and indicate that peer feedback had the most impact on ratings with some evidence of variation for group and individual presentations. All significant results shared a positive effect on the ranked mean score in the specified sub-behaviours for graduates completing the learning activity as part of their studies.

[Insert Table 6]

4.3.2 The role of work-integrated learning

Of the sample, 257 (38.1%) undertook WIL as part of their undergraduate program. Interestingly, MANOVA detected no significant variation ($\alpha=.05$) in perceived capability in the oral communication sub-behaviours for those completing WIL. The benefits of WIL in regard to employability skill development are well-documented (Wilton, 2011) and this finding contradicts those identifying significant gains in the oral communication skills of students completing work placements (Freudenberg, Brimble & Cameron, 2011; Gamble, Patrick & Peach, 2010). Wilton (2012) also found a significant difference in spoken communication skills but only in generalist business/management undergraduates and not those with specialist studies, such as Accounting, nor those combining with another discipline. Others, however, emphasise different areas when examining the benefits of WIL; most particularly enhancing organisational awareness and understanding of workplace values and culture and developing professionalism (see Coll et al., 2009).

Wilton concluded that the value of the placement is more associated with personal development and a better understanding of the demands of employment and the working environment than tangible gains in skill outcomes. To investigate this further, a measure of overall ability was taken to represent an overarching level of graduate confidence in their personal capabilities. On a scale of 1 to 7, a rating of 1 indicated 'of very limited ability' and 7 indicated 'extremely able'. One way ANOVA indicated those who undertook WIL rated their overall ability significantly higher than those who did
not, $F(1,672)=9.004$, $p=.003$, partial $\eta^2=.013$. This suggests that WIL enhances confidence levels (Brooks, 2012) although perhaps not all targeted employability skills.

5. IMPLICATIONS FOR STAKEHOLDERS

Overall, graduates rate their oral communication skills highly, conflicting with industry dissatisfaction with performance in this area. This disparity is noted by others (DuPre & William, 2011; Gersten, 2012) and may be exacerbated by graduates’ inflated perceptions of personal capabilities in employability skills. Although graduates rate certain aspects of the oral communication skill set, particularly the provision of quality feedback, public speaking and use of language and expression, less highly than others, they still perceive themselves as being able to perform competently in the workplace. Disparity in perceptions suggest that education practitioners should be better preparing undergraduates in oral communication as well as articulating more clearly industry expectations of graduate performance in the skill set. Given the shared responsibility for skill development in undergraduates, the role of industry is important in achieving both goals.

5.1 Curriculum renewal

5.1.1 Learning activities

Findings suggest that despite graduates reporting opportunities for a wide range of learning activities for developing oral communication skills, these do not always appear to be effective. Despite 87.9% of the sample participating in small group projects during their degree studies, this learning activity had no significant impact on any of the sub-behaviour ratings. As expected, the popular small and group presentations caused significant variations in certain aspects of public speaking although influencing a broader range of sub-behaviours might be expected. Virtual online meeting tools, study/discussion groups, role plays/simulations/experiments and case studies’ lack of significant effect on oral communication sub-behaviour ratings is of concern. This applies equally to the design and implementation of WIL in undergraduate degrees; an initiative providing potentially
invaluable opportunities for students to practise and fine-tune their oral communication skills in a professional context.

Regarding pedagogical approaches to the development of oral communication skills, this study suggests the number of learning activities does not impact on graduates’ perceived capabilities. Indeed, a small number of key and effective activities may equal a broad range in terms of skill outcomes. Findings suggest that expanding activities dedicated to developing oral communication in business graduates may not be needed; instead education practitioners should review the pedagogical soundness of current learning activities and consider different approaches to enhance effectiveness. For example, for presentations to form an effective learning activity, they must extend beyond a means of assessment and outcomes-focused activity with detailed instructions, competency descriptors and targeted outcomes (Kerby & Romine, 2010). Stowe et al. (2010) noted a strong preference among business practitioners for individual, rather than group, presentations at university and a believed that industry feedback would enhance undergraduate performance in public speaking. Their study indicated that Faculty and students agreed that class tuition on public speaking enhanced skill outcomes.

Newberry and Collins (2012) describe a successful simulation for engaging business students and enabling them to apply their team working and communication skills in an effective way. Ebner and Druckman (2012) emphasise the important student learning from their involvement in actually designing simulations and role-plays, as well as enhanced skill outcomes from students participating in these activities. The development of instructions was particularly relevant for fostering certain communication behaviours. Class debates and discussions, also considered important for fostering informal, verbal communication skills (Dallimore, Hertenstein, & Platt, 2008; Kennedy, 2007), can be designed to formally grade students and use pre-assigned roles to ensure equal participation among
students. Findings highlight areas for future research on the specific benefits of certain learning activities and indeed how they should be designed to enhance oral communication skill outcomes.

On a more positive note, the value of peer feedback is attested with significant influences on certain public speaking, feedback and meeting participation sub-behaviours. Findings provide a strong argument to introduce, or extend, peer feedback exercises within degree curricula, encouraging lifelong learning (Vickerman, 2009). Their activity’s value relies significantly, however, on ability to provide high quality and accurate feedback and undergraduate learning in this area is essential. The importance of being able to give and receive quality feedback is widely acknowledged (Field, 2001; Halfhill & Nielsen, 2007; Scott & Yates, 2002) and undergraduates should therefore be explicitly taught the process of how to evaluate their own work, and that of others, and how to provide appropriate, constructive and useful feedback (Boud, Cohen, and Sampson 2001) particularly during the early stages of degree programs (see Nulty, 2011).

With age, which positively influences certain oral communication sub-behaviours, comes greater experience in both work and life. Wheeler (2008) considers a broad exposure to life spheres – those activities which extend beyond the hours of work and education – to significantly enhance targeted competencies and learning goals. More specific to strong communication skills, employers favour graduates with experience in team sports and community activities (Merino, 2007; Tchibozo, 2008). Encouraging undergraduates to undertake extra-curricular activities, or indeed incorporating service learning, volunteering and other citizenship-targeted behaviours into curricula, may be beneficial.

5.1.2 Curriculum design

Universities can review current approaches to skill development using course portfolios and mapping strategies (Oliver, 2011) and attention should be paid to the suitability of staff responsible for fostering targeted skills. De la Harpe and David (2012) argue those currently responsible are
often not appropriately equipped or sufficiently confident to deliver effective skills development. This, in combination with a reluctance to rigorously and comprehensively embed skill outcomes into core curricula, may form sufficient argument to develop standalone skill programs within Faculties. Although the need to situate communication skill development within a disciplinary context is widely acknowledged (De Lange et al., 2006; Jones, 2012), asserting the advantages of embedding skill outcomes into core disciplinary content over implementing a stand-alone program should not be assumed.

5.1.3 Articulation of skill requirements

Elevated perceptions of capabilities urge stakeholders to articulate more clearly to undergraduates the expected standards in required skills and behaviours as they proceed through their degree program and upon graduation (Hampson & Junor, 2009). Rubrics are critical in defining the required standards for targeted skills and their availability (see Oliver, 2011; Rhodes, 2010) enables HE providers to develop their own set, contextualised to their institution, Faculty and/or learning program’s targeted skills. They are a viable means of articulating academic standards at different undergraduate year levels and identifying target performance criteria and areas requiring individual improvement (Anderson & Mothrweis, 2008). Rubrics are also valuable grading tools with evidence of enhanced oral communication skills when used with undergraduates (Pettinger, Miller & Mott, 2004). Further, they assist with mapping exercises and enable Faculty to identify areas of program deficiency (Kerby & Romine, 2010).

5.2 Role of industry

Developed rubrics should reflect a collaborative effort in order to capture industry requirements and expectations of skill outcomes at graduation level. In addition to clarifying the precise demand for oral communication skills, industry has much to contribute in developing these skills effectively and providing avenues for authentic assessment (see Lawson et al., 2011). Although communication
skills should be developed in the school sector, HE providers have a responsibility to remediate any deficiencies (Andrews & Russell, 2012) and must embrace this challenge with the assistance of key stakeholders. Increased industry input into learning activities should clarify the different ways sub-behaviours are operationalised in a range of industry contexts. Familiarity and engagement with current industry practices is essential and something for which Faculty attracts heavy criticism (Bennis & O’Toole, 2005). Faculty ability to explicitly impart how sub-behaviours are implemented in different industry sectors, organisations and work areas – through analogies and the use of examples - will enhance the acquisition (Hynes, 2012) and transfer of communication skills (Kirwan, 2009). Lin, Grace, Krishnan and Gilsdorf (2010) believe Accounting undergraduates are more likely to apply themselves to communication skill development if they fully appreciate their perceived importance by Accounting firms. Educators resisting employer involvement in learning design must acknowledge the value of their input for better understanding the demands on graduates as they enter the workforce and expectations of their performance in difference aspects of the communication skill set.

Further, findings indicated that more time spent in the workplace tended to downwardly revise perceptions of capabilities in oral communication skills upon graduation. The benefits of part-time working during university studies in better understanding and meeting industry expectations in employability skills are well documented (Shaw, 2012). Encouraging undergraduates to gain both life and work experience during their degree studies will most likely assist in a gaining a more tacit understanding of what is required in the workplace in relation to communication and other targeted employability skills. It will also assist graduates in better constructing skill portfolios and/or resumes which efficiently articulate their capabilities in alignment with industry needs. Ultimately, this will achieve more favourable employment outcomes through better job matches, smoother recruitment and selection processes, and enhanced organisational productivity and performance.
REFERENCES


Hart (2010). Raising the bar: Employers’ views on college learning in the wake of the economic downturn. Report for the Association of American Colleges and Universities, USA.


Table 1 Demographic and background characteristics of business graduate sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Subgroup</th>
<th>Respondents</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age Group</strong></td>
<td>19-21 years</td>
<td></td>
<td>70</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>22-24 years</td>
<td></td>
<td>370</td>
<td>54.9</td>
</tr>
<tr>
<td></td>
<td>25-27 years</td>
<td></td>
<td>137</td>
<td>20.3</td>
</tr>
<tr>
<td></td>
<td>28-30 years</td>
<td></td>
<td>31</td>
<td>4.6</td>
</tr>
<tr>
<td></td>
<td>31-40 years</td>
<td></td>
<td>66</td>
<td>9.8</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>Female</td>
<td></td>
<td>370</td>
<td>54.9</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td></td>
<td>304</td>
<td>45.1</td>
</tr>
<tr>
<td><strong>Time in current job</strong></td>
<td>0 to 12 months</td>
<td></td>
<td>413</td>
<td>61.3</td>
</tr>
<tr>
<td></td>
<td>13 to 24 months</td>
<td></td>
<td>170</td>
<td>25.2</td>
</tr>
<tr>
<td></td>
<td>25 to 36 months</td>
<td></td>
<td>91</td>
<td>13.5</td>
</tr>
<tr>
<td><strong>Total time working since graduation</strong></td>
<td>0 to 12 months</td>
<td></td>
<td>382</td>
<td>56.7</td>
</tr>
<tr>
<td></td>
<td>13 to 24 months</td>
<td></td>
<td>199</td>
<td>29.5</td>
</tr>
<tr>
<td></td>
<td>25 to 36 months</td>
<td></td>
<td>93</td>
<td>13.8</td>
</tr>
<tr>
<td><strong>Time since graduation</strong></td>
<td>0 to 12 months</td>
<td></td>
<td>161</td>
<td>23.9</td>
</tr>
<tr>
<td></td>
<td>13 to 24 months</td>
<td></td>
<td>274</td>
<td>40.7</td>
</tr>
<tr>
<td></td>
<td>More than 25 months</td>
<td></td>
<td>239</td>
<td>35.4</td>
</tr>
<tr>
<td><strong>Organisation type</strong></td>
<td>Private</td>
<td></td>
<td>306</td>
<td>45.4</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td></td>
<td>349</td>
<td>51.8</td>
</tr>
<tr>
<td></td>
<td>Not-for-profit</td>
<td></td>
<td>19</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Industry sector</strong></td>
<td>Primary (i.e. Mining/Agriculture)</td>
<td></td>
<td>65</td>
<td>9.7</td>
</tr>
<tr>
<td></td>
<td>Secondary (i.e. Manufacturing)</td>
<td></td>
<td>34</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Tertiary (i.e. Business Services/Retail)</td>
<td></td>
<td>575</td>
<td>85.3</td>
</tr>
<tr>
<td><strong>Work area</strong></td>
<td>Finance</td>
<td></td>
<td>278</td>
<td>41.2</td>
</tr>
<tr>
<td></td>
<td>HR</td>
<td></td>
<td>46</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>Policy/research/regulation</td>
<td></td>
<td>61</td>
<td>9.1</td>
</tr>
<tr>
<td></td>
<td>Marketing/sales/advertising</td>
<td></td>
<td>54</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td></td>
<td>119</td>
<td>17.7</td>
</tr>
<tr>
<td></td>
<td>Administrative/legal</td>
<td></td>
<td>87</td>
<td>12.9</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td>29</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>Graduating university</strong></td>
<td>Group of Eight</td>
<td></td>
<td>250</td>
<td>37.1</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td>408</td>
<td>60.5</td>
</tr>
<tr>
<td></td>
<td>Not answered</td>
<td></td>
<td>16</td>
<td>2.4</td>
</tr>
<tr>
<td>Behaviour</td>
<td>Sub-behaviour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>---------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Verbal communication:</strong> Communicate orally in a clear and sensitive manner which is appropriately varied according to different audiences and seniority levels</td>
<td><strong>Language and expression:</strong> Able to express complex ideas fluently and coherently using extensive vocabulary – both general and in areas of special interest - and complex sentence structure. <strong>Purpose and audience:</strong> Can vary language and expression to suit a broad range of audiences and situations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Giving and receiving feedback:</strong> Give and receive feedback appropriately and constructively</td>
<td><strong>Quality:</strong> Habitually provides clear, appropriate and constructive feedback to others. <strong>Respect:</strong> Is consistently respectful to others and mindful of their feelings when providing feedback.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Public speaking:</strong> Speak publicly and adjust their style according to the nature of the audience</td>
<td><strong>Language and expression:</strong> Able to express complex ideas fluently and coherently using extensive vocabulary – both general and in areas of special interest - and complex sentence structure. <strong>Purpose and audience:</strong> Can vary language and expression to suit a broad range of audiences. <strong>Central message:</strong> Central message is compelling, precisely stated, reinforced, memorable and consistent with the supporting materials. <strong>Structure:</strong> Can produce a clear, systematically developed presentation, on a broad range of subjects, which highlights significant points in a well structured manner. <strong>Delivery techniques:</strong> Delivery techniques make the presentation professional, fluent, engaging and appropriately paced and demonstrate mastery of the material. <strong>Supporting materials:</strong> Uses a broad range of relevant supporting materials that establish credibility/authority on the topic.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Meeting participation:</strong> Participate constructively in meetings</td>
<td><strong>Listening:</strong> Demonstrates strong listening skills. Does not interrupt others and ensures that all participants get the chance to contribute to discussions. <strong>Contribution:</strong> Contributes many ideas, suggestions, needs and personal feelings. Inspires others to contribute in a similar fashion. <strong>Value:</strong> Advocates the importance and value of discussions and conversations in small group scenarios to others. <strong>Attendance:</strong> Does not require reminders to attend meetings. Arrives punctually, sometimes ahead of time, to all meetings (except for exceptional circumstances). Takes a leading role in the planning and execution of meetings.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3 Behaviour and sub-behaviour mean scores

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal: Language and expression</td>
<td></td>
<td></td>
<td>4.76</td>
<td>1.17</td>
</tr>
<tr>
<td>Verbal: Purpose and audience</td>
<td></td>
<td></td>
<td>4.85</td>
<td>1.23</td>
</tr>
<tr>
<td>Verbal communication average</td>
<td></td>
<td></td>
<td>4.81</td>
<td>1.12</td>
</tr>
<tr>
<td>Feedback: Quality</td>
<td></td>
<td></td>
<td>4.48</td>
<td>1.22</td>
</tr>
<tr>
<td>Feedback: Respect</td>
<td></td>
<td></td>
<td>5.50</td>
<td>1.20</td>
</tr>
<tr>
<td>Feedback average</td>
<td></td>
<td></td>
<td>5.00</td>
<td>1.04</td>
</tr>
<tr>
<td>Public speaking: Language and expression</td>
<td>1</td>
<td>7</td>
<td>4.68</td>
<td>1.28</td>
</tr>
<tr>
<td>Public speaking: Purpose and audience</td>
<td>1</td>
<td>7</td>
<td>4.76</td>
<td>1.23</td>
</tr>
<tr>
<td>Public speaking: Central message</td>
<td>1</td>
<td>7</td>
<td>4.71</td>
<td>1.23</td>
</tr>
<tr>
<td>Public speaking: Structure</td>
<td>1</td>
<td>7</td>
<td>4.82</td>
<td>1.25</td>
</tr>
<tr>
<td>Public speaking: Delivery techniques</td>
<td>1</td>
<td>7</td>
<td>4.62</td>
<td>1.30</td>
</tr>
<tr>
<td>Public speaking: Supporting materials</td>
<td>1</td>
<td>7</td>
<td>4.87</td>
<td>1.28</td>
</tr>
<tr>
<td>Public speaking average</td>
<td></td>
<td></td>
<td>4.75</td>
<td>1.10</td>
</tr>
<tr>
<td>Meeting participation: Listening</td>
<td>1</td>
<td>7</td>
<td>5.21</td>
<td>1.22</td>
</tr>
<tr>
<td>Meeting participation: Contribution</td>
<td>1</td>
<td>7</td>
<td>4.66</td>
<td>1.38</td>
</tr>
<tr>
<td>Meeting participation: Value</td>
<td>1</td>
<td>7</td>
<td>4.70</td>
<td>1.34</td>
</tr>
<tr>
<td>Meeting participation: Attendance</td>
<td>1</td>
<td>7</td>
<td>5.66</td>
<td>1.34</td>
</tr>
<tr>
<td>Meeting participation average</td>
<td></td>
<td></td>
<td>5.06</td>
<td>1.03</td>
</tr>
<tr>
<td>Characteristic</td>
<td>Sub-behaviour</td>
<td>df</td>
<td>MS</td>
<td>F</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------------------</td>
<td>----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Age</td>
<td>Verbal: Language and expression</td>
<td>4</td>
<td>7.594</td>
<td>5.681</td>
</tr>
<tr>
<td></td>
<td>Verbal: Purpose and audience</td>
<td>4</td>
<td>6.519</td>
<td>4.422</td>
</tr>
<tr>
<td></td>
<td>Feedback: Quality</td>
<td>4</td>
<td>8.429</td>
<td>5.858</td>
</tr>
<tr>
<td></td>
<td>Public speaking: Central message</td>
<td>4</td>
<td>6.318</td>
<td>4.276</td>
</tr>
<tr>
<td></td>
<td>Public speaking: Structure</td>
<td>4</td>
<td>7.137</td>
<td>4.650</td>
</tr>
<tr>
<td></td>
<td>Meeting participation: Contribution</td>
<td>4</td>
<td>10.696</td>
<td>5.809</td>
</tr>
<tr>
<td>Total time working since graduation</td>
<td>Verbal: Language and expression</td>
<td>2</td>
<td>9.651</td>
<td>7.153</td>
</tr>
<tr>
<td></td>
<td>Verbal: Purpose and audience</td>
<td>2</td>
<td>21.707</td>
<td>15.030</td>
</tr>
<tr>
<td></td>
<td>Feedback: Quality</td>
<td>2</td>
<td>23.558</td>
<td>16.654</td>
</tr>
<tr>
<td></td>
<td>Public speaking: Structure</td>
<td>2</td>
<td>11.692</td>
<td>7.603</td>
</tr>
<tr>
<td></td>
<td>Public speaking: Delivery techniques</td>
<td>2</td>
<td>9.317</td>
<td>5.609</td>
</tr>
<tr>
<td></td>
<td>Public speaking: Supporting materials</td>
<td>2</td>
<td>10.531</td>
<td>6.555</td>
</tr>
<tr>
<td></td>
<td>Meeting participation: Listening</td>
<td>2</td>
<td>11.502</td>
<td>7.880</td>
</tr>
<tr>
<td></td>
<td>Meeting participation: Contribution</td>
<td>2</td>
<td>17.594</td>
<td>9.526</td>
</tr>
<tr>
<td></td>
<td>Meeting participation: Value</td>
<td>2</td>
<td>20.014</td>
<td>11.579</td>
</tr>
<tr>
<td>Activity</td>
<td>n</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer feedback</td>
<td>283</td>
<td>42.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small group projects</td>
<td>585</td>
<td>87.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virtual online meeting tools</td>
<td>261</td>
<td>39.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study and/or discussion groups</td>
<td>445</td>
<td>66.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role plays, simulations and/or experiments</td>
<td>201</td>
<td>30.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group presentations</td>
<td>587</td>
<td>87.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual presentations</td>
<td>549</td>
<td>82.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case studies</td>
<td>362</td>
<td>54.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6 Variations in sub-behaviour ratings by learning activity (n=674)

<table>
<thead>
<tr>
<th>Learning Activity</th>
<th>Sub-behaviour</th>
<th>Mann-Whitney U</th>
<th>Mean Rank Completed</th>
<th>Mean Rank Not completed</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer feedback</td>
<td>Feedback - quality</td>
<td>48193.50</td>
<td>362.70</td>
<td>319.26</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Public - delivery</td>
<td>47385.00</td>
<td>365.56</td>
<td>317.19</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Public - materials</td>
<td>47897.00</td>
<td>363.75</td>
<td>318.50</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Meeting - value</td>
<td>47897.50</td>
<td>363.43</td>
<td>318.73</td>
<td>.003</td>
</tr>
<tr>
<td>Group presentations</td>
<td>Public - structure</td>
<td>19527.50</td>
<td>347.73</td>
<td>268.45</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Public - delivery</td>
<td>20815.00</td>
<td>345.54</td>
<td>283.25</td>
<td>.004</td>
</tr>
<tr>
<td>Individual presentations</td>
<td>Public – structure</td>
<td>28778.50</td>
<td>347.58</td>
<td>293.23</td>
<td>.004</td>
</tr>
</tbody>
</table>