Are Posters Worth the Paper They Are Printed On?

The Pedagogy of Posters in Hospitality and Tourism Management Education

Jane A. Legget
Erwin Losekoot
Lindsay Neill
Yvonne Wood
Auckland University of Technology

Abstract

This paper considers what is known and extends the knowledge about the value of using posters in tertiary student assessment. It carries out a literature review before considering academic staff and student feedback on poster presentations, highlighting the rationale for using them, challenges in implementing posters as a form of assessment, and student responses to posters as a summative assessment tool. The paper concludes with recommendations based on our findings for those considering using posters and opportunities for further pedagogical research in this increasingly popular tool within the field of hospitality and tourism management.

Keywords: poster; assessment; pedagogy; hospitality; tourism; education

Jane A. Legget, Erwin Losekoot, Lindsay Neill, and Yvonne Wood are senior lecturers in the School of Hospitality and Tourism Management, Faculty of Culture and Society, Auckland University of Technology, Private Bag 92006, Auckland 1142, New Zealand. Please send correspondence to Erwin Losekoot, telephone: 64(0)9 921 9999, erwin. losekoot@aut.ac.nz

Introduction

This paper came about because a number of colleagues in a department of hospitality and tourism management within a university in New Zealand were all using posters as a form of summative student assessment. It was felt that it would be useful to compare and reflect on what each academic did, why he or she did it, what the outcome was, and how successful they feel posters are as a form of assessment. In addition, it was suspected that if one compared all the student feedback (each paper already had an element of student feedback in the normal classroom management process), then common themes about the posters would emerge. This information could then be used to refine the operation of the assessment, support colleagues with issues they were experiencing, or even promote posters as an assessment tool to others who might be considering them as an alternative method of assessment.

This paper begins by reviewing what is already known about the use of posters in a variety of academic fields in terms of their impact on student learning, the opportunity provided by posters to give and receive feedback from academic staff and peers, and the relationship between posters and learning. It then considers primary data in the form of feedback and reflections from academic staff and undergraduate students who have first-hand experience of doing poster assessments before drawing out common themes from those experiences. Recommendations and research implications conclude the paper.

Literature Review

This section considers a brief literature review on the pedagogy of posters as an assessment tool and the challenges and successes other academics have encountered. A considerable amount of the literature on posters as an assessment tool is in the medical field, and it appears that nursing training has long used posters with considerable success. More commonly, posters are now an important element of many international academic conferences. Moule, Judd, and Girot (1998) make the point that posters have moved from the conference hall to the classroom and that they can help to make academic research more accessible and relevant to students on vocational courses. Other disciplines that are using posters in this way include marketing, social work, education, science, and mathematics (Akister, Bannon, & Mullender-Lock, 2000; Kinikin & Hench, 2012;). Brownlie (2007) provides an annotated bibliography of the marketing literature and suggests that research into posters within the academic discipline of marketing can be categorized into the themes of assessment, technology (e. g., digital/virtual developments), posters as educational tools, guidelines for creating posters, and poster design.

Several authors discuss the difference that poster sessions have made to student learning, giving opportunities for students to engage in deep rather than surface learning, to take more responsibility for their own learning, to engage in peer review and assessment and to develop students' "research literacy" (Dogan & Kaya, 2009; Erekson, 2011, Moule et al., 1998; Ohaja, Dunlea, & Muldoon, 2012; Stegemann & Sutton-Brady, 2009). Nisbett (2012) explains that posters are a good way for students to research a current "hot" topic in their field. In considering the use of posters as assessment, academics faced particular challenges in trying to move the students from rote learning for class tests and copying out lab reports to "active participation on the assessment process" (Dogan & Kaya, 2009, p. 830). Additionally, these authors also noted that there appeared to be some resistance

from colleagues to move past the way in which assessments had always been carried out in the science domain, although students seemed enthusiastic about the opportunities posters offered.

Stegemann and Sutton-Brady (2009) raise the issue of students from non-Englishspeaking backgrounds (NESB). They point out that NESB students find public speaking (especially presentations) extremely stressful, and that the less formal atmosphere of a poster session with their peers might be more relaxing. However, they also point out that the ambiguity surrounding poster requirements, presentations, and assessment (together with unfamiliarity with the assessment method) may also cause confusion and stress (although less than traditional presentations according to their study). Using posters in class assessments did, Erekson (2011) admits, make students nervous. They came to him more often and with deeper questions about understanding the material as they wanted to make sure they had understood it if they were going to speak about their research in public. With support, however, this nervousness changed to excitement, and "their anxiety became constructive, since they generally bore an intense desire to do the best possible work" (Erekson, 2011, p. 397). Moule et al. (1998) agreed, saying that engaging in dialogue with students about their poster would "facilitate the development of critical thinking and analysis skills" (p. 241) and Stegemann and Sutton-Brady (2009) claimed students showed "a sense of pride and ownership in their work" (p. 219).

Discussing the topic of peer assessment and feedback, authors reported that students felt more relaxed completing poster assessments than preparing for tests, they were enjoying the process of peer assessment, learning how to communicate ideas, and seeing how others communicated their findings more effectively. Yan (2013) used posters in a postgraduate research methods paper as a piece of formative assessment in preparation for their master's thesis research proposal. This move allowed the students to gain feedback from staff and from their student peers on the viability of their research proposal before commencing their research.

Interestingly, while a number of authors comment on the opportunity to build in experience of peer feedback and review, Ohaja et al. (2012) found strong opposition to students allocating a mark to other students, claiming peer pressure, friendships, and competition between groups as reasons why students should not allocate marks to other groups. Indeed, one contributor said, "Leave the assessment for the lecturers, this isn't our job" (Ohaja et al., 2012, p. 3). Moule et al. (1998) had examples of students using posters to present to their peers in a formative assessment, with a copy of the poster presentation guidelines and the feedback sheet used by student peers. They also highlighted a number of potential challenges, including the cost of producing the poster, the long preparation time, and the fact that the actual production of the poster may mean that the learning outcomes of the assessment are overlooked.

A study by Erekson (2011) of history students found that students were motivated to produce quality poster work by inviting family and friends to view them, thus facilitating interest and motivation that would not have been possible with a written assignment or examination script. He also referred to the power of the dominant assessment paradigm of essays, presentations and examinations. However, Stegemann and Sutton-Brady (2009) discuss the fact that posters force students to summarize their thinking in a very concise manner, whereas presentations often contain much irrelevant information and lecturers "have to listen to nervous students drone on awkwardly" (Stegemann & Sutton-Brady, 2009,

p. 220). A number of authors address the impact of posters on student marks. Erekson (2011) claims that while it did not make any difference to the very strong student, it saw a number of students raise their grades from C to B. This, in his opinion, was because of the increased level of engagement the student displayed in relation to the assessment. However, this might also be because poster presentations are often used in a group work context and therefore weaker students may be "carried" by the more motivated ones; although some students said having the support of others made everyone's final effort better. Ohaja et al. (2012) identify a number of key issues as a result of their reflections on poster assessments, in particular group marking and peer assessment, and the issue of "free-riding."

The relationship between posters and learning outcomes was investigated by Orsmond, Merry, and Sheffield (2006). Their starting point was that the form of assessment (multiple choice question, poster, class test or examination) affected the way in which the student perceives or approaches the assessment, irrespective of what the learning outcomes for the paper was. They also found that the students' previous assessment experiences impacted how the students approached a task. This is worrying if (for example) a student has previously completed a poster as a group exercise and seen some students "free-ride" then they might think this is an option for their poster assessment exercise. Also, if the tutor explains the task as "create a poster" rather than "carry out independent research and summarize what you have learned in an accessible manner to a public audience," it should not surprise assessors if the students focus on the creation of the poster rather than the learning that goes into developing the material for one. However, Orsmond et al., (2006) warn that academics have only themselves to blame for this student response, as "we (tutors) give them (the students) the same old types of activity to do again and again" (Orsmond et al., 2006, p. 276). Stegemann and Sutton-Brady (2009) also warn of staleness of tasks set for students by their lecturers. This places a considerable amount of responsibility on academics using alternative forms of assessment; if we mess it up and students get a poor impression of posters as a form of assessment, then it spoils it for everyone else wanting to use that assessment tool!

Smith, Fuller, and Dunstan (2004) carried out an experiment at an Association of British Neurologists meeting. They asked attendees to "quick score" posters initially and then complete a more detailed review. They found that the neurologists scored the scientifically stronger posters higher, whereas non-specialists marked the poster with the better design higher. This led to the worrying conclusion that "an unattractive poster with high scientific merit risked being overlooked on first impression" (Smith et al., 2004, p. 341). Consequently, they warned that a poster must be visually attractive as well as having scientific merit if it is to have an impact.

This literature review has clearly established that there is a considerable amount of knowledge and experience of both students and academics in using posters as a form of assessment. However, much of this experience is at postgraduate level, in the UK/ Europe, and in technical or scientific fields. This study in contrast considers three groups of undergraduate students, has a mix of individual and group assessment goals, and is in the field of hospitality, tourism and leisure. Furthermore, this study also reflects on the motivations and experiences of the academics involved in these projects thus adding to the current body of knowledge.

Methodology

This study evolved organically as a result of the desire of those staff using student posters as a form of assessment to discuss their experiences with like-minded colleagues. After an initial literature review to establish what was already known about student poster presentations, information was gathered from student feedback and the secondary analysis of themes revealed through content analysis of student-centered evaluations of their poster assessment experience. Common themes were identified across undergraduate papers in Tourism, Heritage and Culture (level 6), Co-Operative Education (level 7) and Facilities Design and Development (level 6) (see Table 1). In addition to student feedback, a review was undertaken of the experiences of four academics who currently use posters in their classes. These comments were then compared to the themes derived from student feedback comments on those classes. Finally, the research data was related back to the literature review, and recommendations are made for academics considering student posters as an assessment tool.

The selection of the three papers, noted in Table 1, provides this research a unique view of posters as assessment items because of the diversity of topics, levels and learning outcomes. These are summarized in the table below.

Table 1
Characteristics of Participating Papers

	Paper 1 (THC)	Paper 2 (Co-Op)	Paper 3 (FDD)
Level (UG)	6	7	6
Poster weighting	10%	20%	30%
Group/Individual	Group	Individual	Individual
Focus/purpose	To propose a revenue-generating additional activity for a museum	To synthesize research project findings and display connections between practice and theory	To propose a redesign of an existing retail hospitality operation
Assessed by	External 'experts'	Project supervisor and other academics	Lecturer
Peer assessment	Yes	No	No

Source: Authors' Own (2013).

Findings

This section first considers the feedback gathered from lecturing staff teaching on these three programs. It considers the initial reasons for use of posters as an assessment tool and then summarizes lecturers' thoughts on how they introduced a poster-based assessment. Finally it provides an overview of the challenges faced by them in using posters. The second part of the findings section considers feedback from students after completing their poster

PEDAGOGY OF POSTERS Legget, Losekoot, Neill, and Wood

presentation. Common themes identified from student feedback are around creativity, the development of research skills, assignment variety, group work, perceived "ease of completion" and the cost of producing posters.

Lecturing Staff Feedback

The lecturers involved in this study were each asked what their motivation had been to include a poster as a form of assessment in their paper. Responses are discussed below.

Reasons for using posters as an assessment tool. The lecturers were not convinced about the effectiveness of compulsory PowerPoint presentations by students that were all very similar and (in many cases) not reflective of student abilities. Some students were simply too nervous to do a worthwhile oral presentation. Compounding this was the significant number of NESB students among the class cohorts. It was also felt that asking other students to sit and listen to unconvincing presentations was not a positive learning experience—for either the presenting student or the student audience. Several lecturers pointed out that presentations are already used in so many other classes that it usually provoked a collective groan when it was announced as the assessment format. Contrasting these issues, asking students to create a poster forced them to think about the target audience and how to communicate with and engage them. It also allowed those who were perhaps not strong in written communication skills to express their enthusiasm for their subject in a different and creative way. The fact that students had to discuss their posters with an assessor when they were being graded meant that they could demonstrate the extent of their knowledge (beyond what was on the poster) in what one academic on the team called "a guided conversational environment." A comment from several staff was that group-based poster assessments forced students to work collaboratively, as they would be expected to do in industry on graduation. The ability for students to see and also formally review their peers' work was considered a very valuable (and relatively unusual) learning experience. It not only forced them to reflect on different ways of approaching the topic, but also required a detailed engagement with the marking guide which would also be used for assessing their own work. One staff member explained it like this:

I use posters because it enhances the students' written work. The report on the design of their restaurant space is visually enhanced by producing a design board/ poster that visualizes the written content of the report. While this could easily be seen as a duplication of theme, it also represents an opportunity for student creativity, and a way to illustrate their written work in a highly condensed way. A good design board that features décor concepts should 'speak for itself' and its concepts should be both clear and concise. The design board is a great expression of a student's 'short hand'.

Introducing posters as a form of assessment. In several cases, the poster was only one element of the assessment. Students were asked to consider the different audiences for their written report and for their poster—and therefore what they should include in each. The possibility to present a creative and original piece of work was highlighted by staff, although a logical and structured way of presenting the information was also emphasized. Several lecturers made the point that facility designers and tourism operators need to be able to communicate using posters and other static displays. Lecturers' use of previous examples of student work to stimulate discussion on what made a good poster was appreciated (and

often photographed!) by students. Students for some of the papers were also told right at the start that they would be assessing other students' posters, perhaps resulting in an early engagement with the assessment criteria. The issue of posters being perceived as being easier than traditional academic assessments because of previous poor experiences was not noted by all staff as some students had never used this form of assessment. It was commented on by one lecturer that this was something they would be vigilant for in poster assessments in future years.

Reflections on the challenges to introducing posters. The free-rider issue that occurs in all group work was noted; it is hard to know exactly which student has done what, especially as students are often unwilling to identify underperformers even in peer assessment situations. However, this is perhaps more of an issue with the choice of a groupwork based assessment than with poster assessments. Several of the papers used non-teaching staff (other academics, visitors from industry, etc.) to review and comment on the posters and engage the students in a discussion of their findings. This was felt to be very valuable and added credibility to the assessment in the eyes of the students. However, there were some differences as to whether external assessors should just make comments or actually allocate grades based on their perceptions and judgments. Several lecturers commented that collating comments and grades from multiple assessors, student peers, and the lecturer in charge was laborious and time-consuming. One lecturer shows students past student work in a range of grades, and then explains why the posters received the grades they did (linked back to the learning outcomes for the papers). He commented:

Some students copy themes previous students have chosen, especially ones that received good grades (they take pictures on their phones). However, unless the student is immersed in the décor theme and style... it's very hard for them to pull off a high grade simply by imitating the work of others. If they try this, I often find a disparity between their poster work and their written report. For me as the lecturer, this can easily identify students who think, 'I'll take the easy route.' Unfortunately for them, they are marked accordingly.

This study identified a number of themes in the data gathered from students, building on the themes of student learning, the opportunity for lecturer and student peer feedback, and the relationship between the assessment and the learning outcomes for the paper that came from the literature review. These themes had both positive and negative examples in the data gathered and included the following: creativity, research skills, assignment variety, group work, ease of completion, and cost. This section will explain each of these themes and support them with examples from the data.

Participating Student Feedback

Creativity. A comment made by many students was that the poster presentation allowed creativity in terms of control over the finished product, the images used, and the ability to design a visually appealing piece of work. They also highlighted the importance of having clear specifications. Comments included "telling a story based on pictures and charts"; "not the usual PowerPoint presentation"; "creatively showcasing the project"; "using photos, graphs, and graphics to emphasize what I have learned"; "hands-on work always suits me best." There were also some negative experiences, mainly around lecturer expectations and technical

Legget, Losekoot, Neill, and Wood

knowledge: "not knowing how to use the MS Publisher and Photoshop programs"; "deciding the layout"; "not being able to put all the information in"; "not really necessary for non art-related papers".

Research skills. Students were quite quick to understand the underlying transferable skills that lecturers were seeking to develop. Skills identified included information sourcing, summarizing key data, presentation, and communication of findings and the ability to use software packages. Comments included, "I learnt way more than expected"; "improve students' skills in graphic design and collecting information"; "good way to summarize a report"; "highlighting key points"; and "having to work outside my comfort zone". As expected, some students could not see the benefits, saying, "I felt like I was back in school"; "PowerPoint would be better/more interesting"; "I don't like talking in front of people"; and "time-consuming".

Assignment variety. Comments around assignment variety were that it was good to be asked to do something different to essays or reports. In one case, the student commented, "I learned more from posters more quickly than I would from doing an essay/report"; "not too lengthy as reports and assignments are"; and "closer to reality". A number of students certainly seemed to be as fed up with interminable PowerPoint presentations as the academics discussed in the literature review section of this paper. For some, this was a new experience: "I found this paper so hard as the approach of the paper is new to me".

Group work. Not all the lecturers involved in this paper used group work for the posters, but there were enough comments on this topic to be worth reflecting on. Positive comments included the ability to share the workload, to see different ways of approaching a topic, coming up with lots of ideas, and making new friendships. Negative comments were usually around the difficulty of finding a mutually convenient meeting time, having people in the group who did not participate, disagreeing on what should be include on the poster, having to cope with a few dominant members; group members whose contributions were deemed substandard, and people not taking the task seriously, "because it is only a poster".

Ease of completion. One comment that was made regularly was that "assessments were challenging but fair". However, a number of students seemed to feel that completing the posters was less work than they would have to do for other types of assessment, although in most cases students had to produce a written report (containing the information that would not fit on the poster) as well. Somewhat worryingly, this reality was not reflected in their posters feedback! A number of students also commented that it was a "good way to end the paper/my university studies". Having the poster session as a capstone event for the degree gave the poster showcase event a sense of occasion and pride.

Cost. Comments around the cost of producing the posters were mostly negative. Common ones included "cost should be included in course fees"; "too expensive to print"; "not an environmentally friendly exercise". Several commented on the procedure that needed to be followed in order to have their posters printed, and the strict submission requirements of the university printing service which had agreed a discounted price for the work. It was noted that as more lecturers were using posters as a student assessment, the print service was streamlining requests and dealing with them more effectively.

Research Implications

This study was carried out over the course of one semester across a number of papers at a similar academic level, but there is no intention to generalize from this one case study

in one institution. Furthermore, as an exploratory study, no statistical data was used (for example to analyze academic grades). Further research could be carried out in a number of areas. It would be interesting to find out if students who find writing essays or traditional examinations difficult (non-native speakers, students with dyslexia, or students with a temporary or permanent impairment) achieve good grades for poster presentations. More work needs to be done on the impact of poster assessments on student marks, perhaps by simply comparing report and poster design marks. It would also be interesting to do a longitudinal study of a paper that introduces posters, tracking what that does to student grades. Feedback from one of the papers in this study showed that 55% of the groups scored higher or the same in their posters compared to their group report and 45% scored lower in their poster session. A comparison of students with a design component (for example, event management) or specialist software knowledge in their paper with those who do not (e.g., human resource management) would allow an understanding of the importance of technical design knowledge compared to subject knowledge. A comparison across different qualifications (diploma/undergraduate/postgraduate) may also expose strengths and weaknesses of the poster assessment format. All the research reported in this study has been conducted in a "western" educational setting, although it is accepted that many institutions now have a wide range of cultures and ethnicities among students and staff, regardless of where they are physically located. Little is therefore known about the impact of different cultures on the success of posters as an assessment tool. Consequently, research studies in the Arabic, African, or Chinese context would be very valuable. Finally, it would be interesting to gauge the opinions of industry (the employers of our graduates and therefore our customers or end users!) on the usefulness of posters in identifying potential highquality employees.

We suggest that further research linking posters as an assessment tool, especially within hospitality and tourism studies, concentrates upon maximizing their use within learning's "guided conversational environment." We recommend this because hospitality and tourism posters appeal to the positive and creative intellectual differences within a student cohort, and reflect the "doing" or operational aspects of the industry. Specifically, we recommend poster use because it mirrors what industry professionals do within employment—creating scenarios within which customers engage in multisensory ways. This form of applied learning needs to be streamlined, markers kept to a minimum, and students informed of how poster design is linked to learning outcomes as well as other associated assessments within the paper.

For papers engaging group poster work, we recommend specific research into the group dynamics that would help to alleviate students gaining a free ride within poster assessment. However, like any assessment, its success is largely dependent upon the conversation and communication between students and their lecturers. To this end, research linking student engagement to the learning outcomes, as well as the assessment task, is also highly recommended.

Conclusion

This study has investigated what is known about using posters as a student assessment tool, and then reported on the experience of four tertiary academics teaching in hospitality and tourism management. It has hopefully summarized for others what is already known, highlighted some of the pitfalls, and perhaps given some encouragement to try this still

underutilized method of assessment. The study was conducted in a new university in New Zealand which has a western/European educational heritage, although a considerable number of students are of Asian origin, together with students from the Pacific region. It is therefore expected that many of the themes and challenges identified by the researchers would share commonalities with those in the U.S. if similar studies were conducted there. The pressure for the massification of higher education with larger class sizes and more students from nontraditional backgrounds (for example to be the first in their family group to attend higher education) is an increasingly common challenge in the global higher education community. Finding a challenging but fair form of assessment that allows these students to demonstrate their understanding of the material presented in class is becoming increasingly important.

Our research concurs with the existing literature on using posters as an assessment tool, and we provide new considerations for academics contemplating their use. Specifically, and in agreement with literature, posters provide a vibrant assessment space enabling and empowering students to show their clear and concise grasp of the concepts required within the assessment. Posters challenge the intellectual, spatial and design thinking skills of students and are consequently aligned toward the cognitive theories of learning. It is suggested in this research that poster assessments are successful when tutors communicate their relevance to the subject, the learning outcomes, and make students aware of their likely costs and the expectations within presenting a poster. When these elements are emphasized, students can fully engage in a successful alternative to more traditional assessment formats.

In providing new considerations, our research promotes the poster as an equal alternative to more traditional assessment formats because it engages students in a wider domain of intellectual interactivity. This interactivity is with other students or within enhanced relationships with family and friends who are interested in the student's academic progress. Student learning benefits through this deeper engagement because it is reflected within their task. For students, the poster concept can be a welcome change to traditional forms of assessment. This is a vital consideration in vocational study areas such as tourism, hospitality, and hospitality facility design, where concepts of original thought can quickly be turned into commercial points of difference—important considerations in the highly competitive business marketplace of hospitality and tourism. This aligns our recommendations of posters as an assessment medium not only with the desire to enhance the learning experience for students, but also to the wider domains of experience, exemplified by research into the "experience economy" within hospitality and tourism (Pine & Gilmour, 1998; Hemmington, 2007). The authors would welcome the opportunity to collaborate with colleagues in the U.S. and other regions on further research.

References

Akister, J., Bannon, A., & Mullender-Lock, H. (2000). Poster presentations in social work education assessment: A case study. *Innovations in Education and Training International*, 37(3), 229–233.

Brownlie, D. (2007). Toward effective poster presentations: An annotated bibliography. *European Journal of Marketing*, 41(11/12), 1245–1283, doi:10.1108/03090560710821161

Dogan, A., & Kaya, O. N. (2009). Poster sessions as an authentic assessment approach in and open-ended university general chemistry laboratory. *Procedia Social and Behavioural Sciences*, 1, 829–833, doi:10.1016/j.sbspro.2009.01.148

- Erekson, K. A. (2011). From archive to awards ceremony: An approach for engaging students in historical research. *Arts and Humanities in Higher Education*, 10(4), 388–400, doi:10.1177/1474022211408798
- Hemmington, N. (2007). From service to experience: Understanding and defining the hospitality business. *Service Industries Journal*, 27(6), 747–755. doi:10.1080/02642060701453221
- Kinikin, J., & Hench, K. (2012). Poster presentations as an assessment tool in a third/college level information literacy course: an effective method of measuring student understanding of library research skills. *Journal of Information Literacy*, 6(2), 86–96.
- Moule, P., Judd, M., & Girot, E. (1998). The poster presentation: What value to the teaching and assessment of research in pre- and post-registration nursing courses? *Nurse Education Today*, 18, 237–242.
- Nisbett, N. (2012). Exploring current issues through the hot topics poster. *Schole: A Journal of Leisure Studies and Recreation Education*, 27(1), 55–60.
- Ohaja, M., Dunlea, M., & Muldoon, K. (2012). Group marking and peer assessment during a group poster presentation: the experiences and views of midwifery students. *Nurse Education in Practice, (in press)*, doi:10.1016/j.nepr.2012.11.005
- Orsmond, P., Merry, S., & Sheffield, D. (2006). A quantitative and qualitative study of changes in the use of learning outcomes and distractions by students and tutors during a biology poster session. *Studies in Educational Evaluation*, *32*, 262–287, doi:10/1016/j. stueduc.2006.08.005
- Pine, B. J., & Gilmore, J. H. (1998). Welcome to the experience economy. *Harvard Business Review*, (July–Aug), 97–105.
- Smith, P. E. M., Fuller, G., & Dunstan, F. (2004). Scoring posters at scientific meetings: First impressions count. *Journal of the Royal Society of Medicine*, 97, 340–341.
- Stegemann, N., & Sutton-Brady, C. (2009). Poster sessions in marketing education: An empirical examination. *Journal of Marketing Education*, 31(3), 219–229, doi:10.1177/0273475309344998
- Yan, H. (2013). Constructive learning and the design of a tourism postgraduate research methods module. *Journal of Teaching in Travel & Tourism*, 13(1), 52–74, doi:10.1080/15313220.2013.756715