Enhancing student employability skills through virtual field trips in the hospitality industry

Final Report 2018

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The project team members are particularly grateful to the Australian Government Office for Learning and Teaching for their financial support and help in making the VFTs of hospitality businesses a reality.
# List of acronyms used

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<thead>
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<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACEN</td>
<td>Australian Collaborative Education Network</td>
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<td>ALTC</td>
<td>Australian Learning and Teaching Council</td>
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<td>APacCHRIE</td>
<td>Asia Pacific Federation of the International Council on Hotel, Restaurant, and Institutional Education</td>
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<td>AQF</td>
<td>Australian Qualifications Framework</td>
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<td>ASCILITE</td>
<td>Australian Society for Computers in Learning in Tertiary Education</td>
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<td>CAUTHE</td>
<td>Council for Australasian Tourism and Hospitality Educators</td>
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<tr>
<td>EuroCHRIE</td>
<td>The European Council on Hotel, Restaurant, and Institutional Education</td>
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<td>GIFT</td>
<td>Griffith Institute for Tourism</td>
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<tr>
<td>ICHRIE</td>
<td>International Council on Hotel, Restaurant, and Institutional Education</td>
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<td>OLT</td>
<td>Australian Government Office for Learning and Teaching</td>
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<td>QTIC</td>
<td>Queensland Tourism Industry Council</td>
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<td>TEQSA</td>
<td>Tertiary Education Quality and Standards Agency</td>
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<td>TLOs</td>
<td>Threshold Learning Outcomes</td>
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<td>UQ</td>
<td>The University of Queensland</td>
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<td>VFT</td>
<td>Virtual field trip</td>
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Executive summary

Over recent years, the world has witnessed a significant growth in both domestic and international visitors (World Tourism Organization [UNWTO], 2017). To cater for this growth, the hospitality industry requires work-ready graduates with the skills and capabilities to deal with real-world challenges; as a result, hospitality management education in developed countries has notably expanded (Liburd, Hjalager, & Christensen, 2011). Moreover, widespread research maintains that there is a disconnect between what employers are seeking and what universities are including in curricula to promote graduates’ job readiness (Coates, 2015).

Hospitality fieldwork offers student-centred experiential learning and an opportunity to establish authentic connections between theory and practice. Ongoing reductions in the funding of universities and increasing student numbers have led to technology-enhanced solutions to provide practice-based learning experiences in hospitality management education. Virtual field trips (VFTs) are an alternative and flexible means for students to connect their classroom learning with authentic activities and assessment via structured experiences in participating hospitality businesses.

In 2013, Griffith University provided seed funding to develop and trial VFTs of two hotels in Queensland (see http://youtu.be/Bvim3LkuBAg). The VFTs were implemented in a core course within the Bachelor of International Tourism and Hotel Management. The course content and assessment were integrated and constructively aligned with the VFTs (Biggs, 2003) and evaluated for effectiveness using mixed methodologies. Students found the VFTs to be highly effective in reinforcing the course content and adding to their learning experience. They also found the VFTs to be relevant and useful in informing their assessment tasks. In particular, the following observations stood out:

- It’s a very good learning tool for us, because we can explore the back of house area a lot and also where we can actually listen to the recorded interview where the executive chef or managers actually gave us a lot of information that we don’t know.

- I thought it was pretty innovative. I hadn’t had anything like it at my uni back home before so it was interesting to see the hotel operations through that kind of medium.

Students also expected more advanced technology and the inclusion of hotels and independent restaurants from diverse geographical locations. Statements made by students on how the VFTs could be improved included

- The photos did not capture enough details and these should also include 360-degree panorama shots.

- We are studying International Tourism and Hotel Management, but virtual field trip showed us only Brisbane and Gold Coast hotels.

Although the initial research findings indicated that the VFTs were innovative and an effective substitute for physical field trips, significant funding was necessary to broaden the VFT project’s scope and move its performance to the next level by, for example, including international hospitality businesses and applying interactive technologies, such as mobile
On the basis of research evidence, in 2015, the Australian Government Office for Learning and Teaching (OLT) awarded the project funding to develop expanded and advanced VFTs with improved functionality of hospitality businesses in Australia and overseas. As such, the aims of this VFT project were as follows:

- Identify and test emerging technologies to provide an authentic and interactive VFT environment for developing threshold learning outcomes (TLOs) and global employability skills.
- Design and test authentic learning pedagogies and assessment tasks based on a diverse range of VFTs including domestic and international hospitality settings.
- Identify and document solutions to the challenges associated with embedding VFTs into hospitality management curricula.
- Evaluate the contribution of VFT pedagogies to student satisfaction, outcomes, and global employability skills for the hospitality industry.
- Encourage the adoption of VFTs by promoting authentic learning pedagogies, guidelines, and strategies by universities and vocational educational institutions offering hospitality management programs.

The VFT website brings together a collection of pre-screened, thematically based web pages into a structured online learning experience. It includes structured interviews with senior managers discussing their roles and responsibilities, 360-degree panoramas of the design and layout facets of hospitality businesses, and key management practices. With this comprehensive VFT tool, students will have improved ability to compare and contrast the design and layout elements of food and beverage production and service areas, opportunities to develop menus and wine lists, and other food and beverage management practices.

A broad evaluative instrument was also developed through an extensive literature review and focus group interviews with hospitality management students. Enhanced versions of the trial VFTs of two existing hotels, with improved layouts and the inclusion of 360-degree photos, were piloted in 2016 in the partner institutions and tested for adequacy, validity, and reliability using a self-administered survey. Data analysis revealed that the reliability of variables included in the instruments was acceptable.

As a result, the VFT project has accomplished the following outcomes:

- Designed and developed VFTs of national and international hospitality businesses to include hotels, restaurants, and wineries. The VFTs can be accessed through [www.virtualfieldtrips.edu.au](http://www.virtualfieldtrips.edu.au) using a variety of digital devices.
- Designed and developed a dedicated VFT project website to host a wide-ranging resource and the launching pad for the VFTs.
• Developed and piloted pre- and post-survey instruments to evaluate the effectiveness of VFTs and students’ learning outcomes.

• Mapped the curriculum for food and beverage management courses and constructively aligned VFTs to teaching and assessments.

• Implemented and evaluated the VFTs at the partner universities.

• Disseminated the VFT project nationally and internationally through seminars, workshops, webinars and conferences, and demonstrations at universities offering hospitality management.

• Analyse a comprehensive set of data and publish three journal articles.

The expanded version of hospitality VFTs was designed and developed, and then trialled and evaluated in 2017, with a view to promoting a set of pedagogical tools to advance graduate employability skills. Developments in technology enable students to, first, access and, second, critically examine information from detailed food and beverage operations using a variety of digital devices in order to construct their own understanding of management practices.

VFTs appear to complement physical site visits, provide graduates with an asynchronous tour of hospitality businesses, and enhance weekly lecture topics and assessment tasks. Research throughout the early trial, pilot, and implementation of VFTs has shown that the hospitality students’ exposure to the VFTs and its integration into their course allowed them to practise necessary skills and knowledge, and construct deeper understanding of phenomena by collaboratively searching for new meanings. Moreover, the instructional design of VFTs helped capture and hold graduates’ attention, ultimately resulting in an improved level of engagement with their studies. Through ongoing consultation with practitioners and academics, VFTs are constantly improving. Furthermore, VFTs are proving to be an excellent teaching resource, as they enable graduates to build solid portfolios of work to show potential employers, Thus, VFTs provide graduates with an authentic and problem-based learning experience and enhance the quality of job-ready skills to better meet the employability needs of the hospitality industry. This is further supported by the argument that today’s graduates are significantly more accustomed to technology, have expectations of its application in all walks of life, and desire ease of accessibility and flexibility. The VFTs have been extensively promoted for adoption in Australia and overseas, well beyond the partner universities, through forums, conferences, and workshops organised by tourism and hospitality education groups, accreditation bodies, as well as universities offering hospitality management studies. In addition, the concept of VFTs has now been expanded to the discipline of education and has potential within health and engineering fields.

It is encouraging to note that, within the 11-month period between January and November 2017, the VFTs have grown in their acceptance. For instance, the VFTs have been accessed in 66 different countries around the world, well beyond the countries where they have been directly promoted. Furthermore, individuals have experienced 8,610 sessions and viewed 33,476 pages of the VFT website and tool, and the website has had 4,364 active and 927 organic users (Google Analytics, 2017). No doubt, with time, the VFTs will gain further popularity and support VR experiences.
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Chapter 1: Project overview and aims

Context

This report provides a final account of the ‘Enhancing students’ employability skills through virtual field trips in the hospitality industry’ (ID15-4905) project funded by the Australian Government Office for Learning and Teaching (OLT) as part of the Strategic Priority Projects scheme in 2015.

Virtual field trips (VFTs) of hospitality businesses (e.g. hotels, independent restaurants, and wineries) are already enhancing the student experience at the partner institutions in Australia following the rollout of the VFT project funded by OLT. The virtual initiative was coined in South East Queensland and extended across Australia (e.g. Queensland, New South Wales, and Western Australia), as well as international locations (e.g. London, Dubai, Hong Kong, and China), covering a variety of hospitality businesses.

VFTs offer an alternative and flexible mode of learning for students. They provide an opportunity to effectively connect course content from the classroom with authentic activities and assessment tasks that offer a variety of national and international hotels, independent restaurants, and wineries. Advances in and access to technology enable students to examine and compare different hospitality or food and wine tourism businesses using the digital device of their choice. Students become immersed in hospitality businesses’ operational and managerial practices and absorb critical workplace policies and procedures.

VFTs provide 360-degree panoramas of hospitality businesses’ entrances, lobbies, bars and restaurants, and food production areas, and allow students to critically examine the physical aspects of architectural design, interior decor, lighting, furnishing, and layout and flow of plant and equipment. As additional hospitality businesses in different locations in Australia and overseas are introduced, students have greater scope to compare and contrast the cultural influences in dining trends, sustainable practices, design and layout elements, menu and wine lists, standard operating procedures, and various processes.

The innovative instructional design of VFTs can help capture and hold student attention, and ultimately lead to improved engagement with the curriculum. As a result, VFTs enhance the quality of graduates’ essential employability skills valued by the hospitality industry. Through ongoing consultation with industry and academics, VFTs have become a comprehensive teaching resource, valued by teachers and potential employers, as they enable students to build job-ready portfolios of work.

Aims

The broad aims of the VFT project were to design and develop widespread hospitality industry VFTs and evaluative instruments to access the effectiveness of learning and teaching pedagogies, and to promote hospitality institutions to adopt VFTs. More specifically, the project focused on the following aims:
• Identify and test emerging technologies to provide an authentic and interactive VFT environment for developing threshold learning outcomes (TLOs) and global employability skills.

• Design and test authentic learning pedagogies and assessment tasks based on a diverse range of VFTs including domestic and international hospitality settings.

• Identify and document solutions to the challenges associated with embedding VFTs into hospitality management curricula.

• Evaluate the contribution of VFT pedagogies to student satisfaction, TLOs, and global employability skills for the hospitality industry.

• Encourage the adoption of VFTs by promoting authentic learning pedagogies, guidelines, and strategies by universities and vocational educational institutions offering hospitality management programs.

Scope

The scope of the VFT project in the first instance was to revise and update the two existing hotel sites originally developed through Griffith University Learning and Teaching seed funding. The enhanced version of VFTs included the addition of 360-degree images of the hotels’ key areas, making interviews with managers more succinct, and enhancing its navigation capabilities. A further four hotels and two independent restaurants, located in Sydney, Hong Kong, Beijing, Dubai and London, were also added. While the process of inviting the new hospitality businesses, capturing the footage, converting into multimedia, and scripting and editing was undertaken, in parallel the two existing hotels were momentarily overhauled and an evaluative instrument was researched and developed. This allowed pilot tests of the short version of the VFTs, as well as the instrument in the four partner institutions, to be undertaken in a timely fashion.

As the project was progressing, there was a strong interest from additional hospitality businesses to participate in the VFT project. A conscious decision was made to take advantage of the opportunity and broaden the project to wineries and a sustainable consulting firm. Instead of eight hospitality businesses, the final number increased to 15 in total, making an increase of almost 100 per cent. This increase was managed with tight control over the existing grant budget. The hospitality businesses represented major international hotel brands (e.g. Accor Hotels, Marriott Hotels and Resorts, Cordis Hotel, W Hotels, InterContinental Hotels Group, Kempinski Hotels, Edwardian Hotels, Jumeriah Beach Hotel and Zhouzheng Hotel), restaurants, wineries, and a sustainability certification firm. Indeed, the inclusion of additional businesses helped make the VFTs more appealing to higher education, as well as vocational education institutions offering a variety of hospitality management programs. Courses such as introduction to hotels/hospitality industry, food and beverage management, food and wine tourism, sustainable tourism, leadership, entrepreneurship, career development, and work-integrated learning can adapt small or large parts of VFTs.

Outcomes

The strong links with the hospitality industry at local, national, and international levels, collegial project team members, methodical project management, and the persistent
support from the multimedia team made it possible to accomplish a number of VFT-related outcomes within a short space of time, and these are presented below:

- Designed and developed VFTs of national and international hospitality businesses to include hotels, restaurants, and wineries. The VFTs can be accessed through www.virtualfieldtrips.edu.au using a variety of digital devices.
- Designed and developed a dedicated VFT project website and the launching pad for the VFTs.
- Developed and piloted pre- and post-survey instruments to evaluate the effectiveness of VFTs and students’ learning outcomes.
- Mapped the curriculum to suitable hospitality courses and constructively aligned VFTs to learning outcomes, course material, learning activities, and assessment task(s).
- Implemented and evaluated the final version of the VFTs at the four partner institutions and collected a comprehensive set of data.
- Disseminated the VFT project locally, nationally, and internationally (through webinar, workshops, seminars, conferences presentations, and poster sessions).
- Analyse a comprehensive set of data and publish three journal articles.

VFT website

The VFT website has been developed as a vital part of the project. It helps convey the project’s background and includes a range of resources for academics and hospitality management students. These include ‘Resources’ (publications and various tools), ‘Sustainability’ (EarthCheck consulting), ‘Events’ (details of dissemination activities), ‘Participants’ (details of hospitality businesses participating in the project), and ‘About’ (background, project and development teams, and contact details). Appendix B shows the layout of the VFT home page. In addition, the website houses the VFT tool and can be accessed through the following URL: www.virtualfieldtrips.edu.au/vft/

To assist individuals (academics, students, and others) to effectively navigate the website as well as the VFTs, written instructions, a short video, and brief details of the interviews with various managers have been posted on the website under the ‘Resources’ tab. Appendix C presents various hospitality businesses, and by clicking on the respective image allows users to navigate the VFTs.

VFT evaluation instrument

Evaluation is a means of critically examining the collection and analysis of data for the purpose of improving understanding of phenomena, thereby establishing the worth of certain actions and strategies. Here we are interested in establishing how effective VFTs have been in terms of students’ learning and their satisfaction with the introduction of an innovative, technology-driven learning and teaching tool (see Figure 1, the VFT learning barometer framework used to evaluate students’ learning, which has been adapted from Biggs, 1993). There are three key aspects in the framework: presage (the influence of the learning context and environment), process (students’ learning style, which varies from
surface to a deep level of learning), and product (students’ learning outcomes). Pre- and post-survey instruments based on Biggs’ (1993) model were developed, pilot tested, and then used to collect data in relation to the implementation of the VFTs in a variety of courses in project partner institutions in 2017.

![Figure 1: VFT learning barometer framework (adapted from Biggs, 1993)](image)

Note: TH&E TLOs – Tourism, Hospitality and Events Threshold Learning Outcomes
Chapter 2: Project background literature

Rationale

The VFT project was developed based on four well-known theoretical frameworks of employability (Dibben & Norton, 2017; Leong & Kavanagh, 2013), active learning (Bonwell & Eison, 1991), authentic learning, and constructive alignment to achieve the intended learning outcomes of hospitality graduates (Biggs, 2003).

Employability

Over recent years there has been significant growth in both domestic and international tourism (UNWTO, 2017), which has sparked demand for hospitality management programs (Liburd et al., 2011). Government departments in Australia have suggested that universities should play an important role in developing graduates with work-ready skills (Dibben & Norton, 2017; Leong & Kavanagh, 2013). Furthermore, it has been revealed that several institutions lacked a structured means of including employability into their programs of study (Dibben & Norton, 2017). Indeed, employability involves entrenching elements of practical industry-based experience in education through various learning and teaching activities and assessment tasks. In spite of this, the inclusion of practical learning experience has become difficult due to ongoing cuts to government funding, large class sizes, and the industry’s lack of commitment to offering worthwhile work-integrated opportunities and hosting groups of students on actual field trips. Hence, students have been denied opportunities to apply theory to practice in managing hospitality businesses.

Government bodies and researchers have realised the importance of developing employability among graduates (Dibben & Norton, 2017; U.S. Department of Education, 2015; Wall & Speake, 2012) and promoting that these skills need to form a major part of educational programs. To address the issue of employability, higher education institutions have started to develop a set of graduate attributes and activities embedded in the curriculum. For instance, organised visits to functioning hospitality businesses are one element of experiential learning. The purpose of such organised visits would not be possible by simply discussing theoretical concepts in class (Behrendt & Franklin, 2014). According to Stoddard (2009), a field trip is an experiential learning that allows students to attain an authentic experience and creates new ways of learning and understanding different hospitality management concepts. Behrendt and Franklin (2014) found that students who experienced field trips developed a positive attitude towards those courses. Arcodia, Cavlek, and Abreu-Novais (2014) have further reported that students related to their learning more effectively when they engaged with field trips. Similarly, Yan and Cheung (2012) found that at the conclusion of a field trip, students in China reported an increased understanding of businesses and this understanding was used to more effectively complete assessment tasks, because they had gained insights into practical aspects of businesses.

Research shows that a number of institutions are removing field trip components from their programs of study due to large classes, high costs, complex insurance and liability requirements, and tight lecture scheduling (Behrendt & Franklin, 2014; Greene, Kisida, & Bowen, 2014; Jacobson, Militello, & Baveye, 2009; Kingston et al., 2012; Stoddard, 2009). To overcome such challenges, academics and researchers are using a digital (or virtual) field
trip in lecture theatres instead of taking large cohorts of students on physical field trips (Behrendt & Franklin, 2014; Patiar, et al., 2017).

However, despite the benefits of digital and virtual field trips, some researchers have criticised them for not offering students multidimensional experiences of businesses and not physically being there to help retain the details of those trips (Hoalst-Pullen & Gatrell, 2011). For these reasons, VFTs need to be designed with care to provide students with comprehensive insights and a unique experience that goes beyond physical field trips, textbooks, and journal articles. Indeed, VFTs offer locational flexibility to include national and international locations (Kingston et al., 2012), allow educators to present complex real-world situations that would not be possible in another format, and offer students an opportunity to identify various options to enhance their learning (Jacobson et al., 2009). In this way, well-developed and integrated VFTs can result in improved engagement in class and provide students with a deeper understanding of real-life situations. It is argued that students will take these important skills and be more confident in real work environments.

**Authentic learning**

Authentic learning draws upon the constructivist learning paradigm (Cheney, 2008) and refers to teaching approaches that use realistic or simulated situations for students (Herrington, Reeves, & Oliver, 2007). Authentic learning is based on the premise that people learn better in context (Dewey, 1966). Context is extremely important in the hospitality and tourism field because of its unique characteristics as a service industry and due to its strong emphasis on practical knowledge and skills (Busby & Gibson, 2010). Hospitality management programs have traditionally included experiential components in the learning environment, either in the form of training laboratories, or through field trips and work-integrated learning. Unfortunately, as already discussed, these authentic learning contexts are rapidly vanishing from hospitality management programs in universities (Figueiredo & Afonso, 2005).

However, advances in technology have made VFTs an effective way of bridging the gap between the classroom and the workplace (Franks & Oliver, 2012). The proposed VFT tool has the potential to work as an effective substitute for real experiential contexts by providing students with an authentic learning environment. For instance, VFTs can provide an authentic context for learning because they demonstrate how knowledge and skills related to food and beverage operations are applied in real-world settings (Gulikers, Bastiaens, & Kirschner, 2005; Herrington & Kervin, 2007). VFTs can provide access to leading hospitality brands that allow students to experience a variety of different management models (Collins, Brown, & Newman, 1989). VFTs can also be easily supported by authentic assessments based on real-world scenarios (Herrington & Herrington, 1998). More specifically, VFTs can provide students with rich operational management information, concentrated in one place, which can be shared by a large number of students in different parts of the country and around the world in the most effective manner.

The extended authentic learning design framework developed by Parker, Maor, and Herrington (2013) provides a useful model to align learner needs, pedagogy, and assessment in authentic online learning elements of an authentic learning environment. The VFTs assisted in supporting the effective delivery of the course content and the completion of assessment tasks, for example: (1) an authentic context; (2) authentic tasks and activities;
(3) access to expert performances; (4) multiple perspectives; (5) collaboration; (6) reflection; (7) articulation; (8) coaching and scaffolding; and (9) authentic assessment.

**Active learning**

Active learning refers to instructional methods that engage students in the learning process (Prince, 2004). The core elements of active learning indicate that students have an inner desire to engage in learning and teaching activities, as opposed to passive learning in the traditional lecture mode of teaching (Bonwell & Eison, 1991). Research shows that the use of the VFTs can provide an excellent online learning context, and present activities and assessments in an authentic manner (Herrington, Oliver, & Reeves, 2003). The interactive nature of the VFTs offers a real background to the workings of hospitality businesses (e.g. hotels, independent restaurants, and wineries with exclusive food and beverage operations) where students are able to assess and compare different design and layout principles, as well as management practices. Furthermore, linking learning activities and assessments to working hotels, independent restaurants, and winery food and beverage operations provides opportunities for deeper learning, thus inspiring students to engage in the learning process and supporting active learning pedagogy.

Researchers argue that simply imparting skills and knowledge to students is not adequate (Herrington & Kervin, 2007). In fact, students’ learning needs to be authentic, where hospitality industry issues are clearly contextualised and theory is integrated with specific management practices. The use of innovative technology-based practices can help provide students with an authentic learning experience. Herrington and Kervin (2007) explain that authentic learning has key elements such as authentic contexts, tasks and assessments, access to expert advice and coaching, supportive and collaborative environments, exposure to different roles, presence of tacit knowledge, and opportunities to reflect on learning experiences. Moreover, up-to-date technology can further promote active learning, as students can effectively collaborate and share information with others remotely and construct and articulate their knowledge together (Herrington & Kervin 2007).

A VFT is a guided exploration of a website that organises a collection of pre-screened, thematically based web pages into a structured online learning experience (Foley, 2010), and provides a viable alternative to physical field trips. Early evaluations have affirmed that VFTs deliver positive outcomes and were effective in engaging students, reinforcing course content, offering assessment contexts, and adding to the learning experience (Patiar, et al., 2017). In addition, VFTs support flexible delivery at a relatively low cost and allow transferability for multi-campus delivery (Qiu & Hubble, 2002).

The research shows that the use of VFTs promote blended learning and can offer students a real working environment with opportunities to be active learners, as opposed to passive learners. Patiar, et al. (2017) report that undergraduate students found the learning material available through VFTs to be useful and easy to access, yet anticipated the technological aspect of VFTs to be the same, if not more advanced, than the technology they were using in their personal lives. In another study, Patiar, Ma, Kensbock, and Cox (2017a, b) established that the system quality dimension of VFTs was observed to be vital in shaping students’ satisfaction with their learning. Furthermore, the enjoyment quality factor of VFTs had stronger impacts on satisfaction in comparison to the factor of quality of the
teaching material. This does not mean that the quality of the teaching material is less important, but the ease of access and navigation, as well as being a fun system, are the first steps in providing a pleasant learning environment for students using the VFT tool (Chang & Tung, 2008). It is evident that students today are attuned to technology and have high expectations of the technology interface in all walks of life, including their learning (Harding, Kern, & Toft, 2001). Wider research informs us that students of today crave speedy answers to their concerns with the least amount of time and energy expended (Chang & Tung, 2008; Oh, Ahn, & Kim, 2003; Prensky, 2007). Therefore, a careful blend of technology with traditional teaching can encourage students to become active and engage with their course of study (Palfrey & Gasser, 2008). As an innovative and cost-effective learning and teaching tool, VFTs can overcome the issues of large classes and the logistics of travel to hospitality businesses and provide students with an opportunity to connect (Sharpe, 2011). It is argued that students benefit from such blended and well-integrated approaches to teaching and gain improved learning from real-world management practices (Green & Sammons, 2014).

Constructive alignment principle

The constructive alignment principle refers to grouping all learning and teaching content and activities with assessment tasks in order to achieve desired learning outcomes (Biggs, 2003). This principle ensues from early curriculum design through to implementation and aligns graduate attributes with the needs of employers. Moreover, assessments also need to be constructively aligned with intended learning outcomes (Biggs & Tang, 2007; Stefani, 2009). For example, the hotels, restaurants, and wineries featured in the VFTs serve as authentic learning contexts for a restaurant concept proposal, where students are required to undertake realistic market analysis and propose a restaurant concept to fit the existing operations and brand image of the hotel. This promotes more a structured and meaningful approach to learning for students as they can see the practical relevance of their learning.

A large proportion of education research supports the application of learning theories and the integration of technology to instil in students, key employability skills and competencies (problem-solving, team work, interpersonal skills, creativity) demanded by employers (Elleven, Wircenski, Wircenski, & Nimon, 2006; Patiar et al., 2017a). These employability skills and competencies can be effectively developed through real-life work experiences. Indeed, the advent of technology makes it possible to purposely design a VFT and offer hospitality graduates near real professional experiences and adequately prepare hotel managers of the future. Research shows that VFTs can effectively promote quality education, as they conform with a student-centred approach, cater to the needs of different learning styles, use the lecturer’s time efficiently, allow critical operational details to be captured, and give students the flexibility of time and location (Elleven et al., 2006; Patiar, Kensbock, et al., 2017; Patiar et al., 2017a, b).
Chapter 3: Project approach

Rationale

The VFT project used an overlapping, multi-method approach to ensure that the project milestones were achieved in a timely fashion. The overarching approach involved a number of data sources (e.g. audit of teaching practices, literature review, and focus group interviews with hospitality management students) to develop the VFTs and the evaluative tool, and to establish its effectiveness as a learning and teaching resource. These data sources formed the basis for engaging with the project community to share resources and disseminate key findings. The two-year project received a six-month extension due to the expanded scope of the project and changes in the institutions’ course offerings. The VFT project was approached based on four broad stages, namely planning, executing, implementing and testing, and disseminating and establishing its impact. Table 1 provides a summary of the stages, time frames, and tasks undertaken.

Table 1: VFT project approach stages

<table>
<thead>
<tr>
<th>VFT project stages</th>
<th>Tasks</th>
</tr>
</thead>
</table>
- Arrange first project team meeting (develop processes).  
- Arrange multi-institutional agreements and seek ethics approval.  
- Design project branding and templates. |
- Undertake literature review (identify approaches and variables).  
- Conduct desktop audit of existing curriculum.  
- Identify key variables from the literature.  
- Refine key variables and seek reference panel’s feedback.  
- Pilot test VFTs, followed by further refinement.  
- Trial barometer with open-ended questions for refinement.  
- Register domain name.  
- Develop VFTs including teaching resources. |
- Seek academics’ reflections on VFTs implementation.  
- Engage with internal and external evaluators. |
- Demonstrate VFTs at hospitality institutions.  
- Submit the final project report and the budget acquittals.  
- Plan post-project activities. |
The VFT project comprised the following four key stages: (a) project planning, (b) execution, (c) implementation and evaluation, and (d) dissemination, impact, and finalisation. These are elaborated on next.

**Project planning**

The planning stage involved establishing a blueprint of activities and decisions to be made to determine the goals to be accomplished, and individuals were assigned key responsibilities. Moreover, it was essential to work within the grant guidelines, and, accordingly, various systems and procedures were developed to ensure effective communication, the achievement of milestones, and keeping within the budget.

First, various key personnel were appointed. A project manager, who could support the project leader and the project team, was assigned to initiate, plan, design, execute, monitor, and control and complete the VFTs project. Moreover, the project manager’s role included recognising potential risks and recommending actions to mitigate those risks. A reference panel was appointed to represent a broad range of experts, such as senior academics from vocational and higher education in Australia, Hong Kong, and the United Kingdom, executives of tourism peak bodies, and a sustainability consulting firm to guide and provide advice on matters related to the development of the VFT and evaluation barometer. The appointment of an external evaluator was made from a neighbouring university, an academic with knowledge and experience of hospitality education and industry practices, as well as active research in the pedagogy of learning and teaching. The role of the external evaluator has been to attend project meetings, review strategies and actions, and advise the project team on its pros and cons at a distancing from the actual project. The external evaluator provided several informal and formal reports substantiating the progress of the project.

Second, the maiden meeting with all members and the project manager was arranged to review the project deliverables, develop the project action plan, share out roles and responsibilities, and establish procedures to maintain progress through monthly face-to-face meetings with WebEx. The WebEx facility ensured that interstate members could actively engage with the project. The monthly meetings were conducted formally, with an agenda circulated a week before the meeting, and a document containing minutes and post-meeting actions circulated after each meeting.

Third, a multi-institutional OLT grant contract agreement with partner institutions was organised, as well as an application for ethics approval to conduct interviews, focus groups, and surveys with hospitality management students enrolled in partner institution programs to collect data related to students’ learning styles, experiences using VFTs, and various learning outcomes. Fourth, the VFT project logo and templates for branding purposes were designed to give the project a unique identity and to publicise the project from its beginning.

**Project execution**

The execution of the VFT project used simultaneous activities and involved the following main endeavours to include developing prototype VFTs, reviewing the literature to develop an evaluation instrument, testing, and developing a website and VFTs. Each endeavour is explained next.
Prototype VFTs

The prototype VFTs comprised two hotels situated in South East Queensland, Australia. They were developed through Griffith University’s seed funding. The prototype VFTs contained standard photos with brief descriptions of the design and layout and functional aspects of the hotel food and beverage operations, and recordings of interviews with key managers discussing their career backgrounds and roles and responsibilities. The VFT tool was housed on Blackboard, which was administered by Griffith University and only available to students enrolled in specific courses. Keeping these limitations in mind, and ensuring the VFTs would be available on time for testing the evaluation tool, two immediate tasks were actioned to move the project forward. First, the two hotel properties in Queensland were revisited to shoot 360-degree images of various aspects of operations using the latest technology available to enhance the features and the functionality of the VFT tool. Second, the VFTs were made freely available to everyone through a dedicated web link.

It is worthy to note that the development of the expanded VFTs of hospitality businesses in other parts of Australia, Hong Kong, mainland China, and the United Kingdom involved inviting and negotiating with several hospitality businesses to participate in the VFT project. This task was tedious and time consuming, with a success rate of 20 per cent. Once hospitality businesses did agree to participate, it required project team member(s) to organise the shooting of hospitality operations and the video recording of interviews with senior managers, followed by editing, adding scripts, and packaging the hospitality industry practices into VFTs using multimedia technologies. Therefore, a significant proportion of the project time was allocated to the development of the VFTs, and it was crucial to obtain the prototype VFTs ready for testing and to develop an evaluative tool.

Literature review

While the prototype VFTs were being refined, an early literature review was conducted to identify key educational issues, measurement approaches, and relevant variables to examine the effectiveness of VFTs and student learning approaches and experiences.

Evaluation instrument development

To assess the effectiveness of students’ learning experiences a number of constructs were identified from the literature and the focus groups and were used to develop a survey instrument. The key constructs, based on Biggs’ (1993) presage-process-products model, include student factors, learning environment factors, and learning-related activities. The instrument includes measures such as learning outcomes (Bloom, Englehart, Furst, Hill, & Krathwohl, 1956), student motivation (Christophel, 1990), learning styles (Entwistle, 1981), and perceptions of technological features (Lin, 2007) (see Figure 1).

The pre-survey instrument consisted of four sections. Section 1 comprised students’ learning outcomes related to their expectations (e.g. I expect that the VFT tool will develop my knowledge of food and beverage operations), their level of confidence (e.g. I am confident I can learn the concepts taught in the course), and their expectation of the learning experience (e.g. I expect that the VFT should challenge my learning). Students responded to various statements using a seven-point Likert-type scale where they were asked to rate their agreement from strongly disagree to strongly agree. Section 2 comprised
the VFT learning environment, which concerned the design, support, and assessment tasks in relation to VFTs (e.g. Assessment tasks are clearly linked to the VFT). Students responded to various statements using a seven-point Likert-type scale where they indicated their importance from not at all important to extremely important. Section 3 comprised the learning process where students were presented with different scenarios and asked to select a preference from a choice of four options (e.g. Do you prefer a teacher or a presenter who uses demonstrations/questions and answers/handouts/images). Section 4 collected participating students’ personal details. In addition, students were asked open-ended questions in terms of what skills and knowledge they expected to gain from using VFTs in their course.

The post-survey instrument also consisted of four sections and used statements similar to those included in the pre-survey, but reflected students’ actual experience with the course and the use of the VFT tool. Section 1 comprised student learning outcomes related to their experiences gaining knowledge and confidence and the use of the VFT; section 2 comprised learning environment experiences (e.g. The VFT provided useful learning tools); section 3 comprised the learning process and students’ engagement with the course and VFT; and section 4 comprised students’ personal backgrounds. Furthermore, students were asked open-ended questions in terms of the skills and knowledge they perceived they gained from using the VFTs during the semester, the skills and knowledge they expected to gain from using VFTs in the course, what aspects of the VFTs they liked most, and what aspects of the VFTs could be further improved.

Pilot testing

In semester 1, 2016, a prototype VFT and the two evaluation questionnaires were pilot tested in food and beverage management–related courses at the project partner institutions. In total, 215 of 350 undergraduate students studying hospitality management programs participated, giving a response rate of 61.4 per cent. There were 134 pre- and post-matched samples, giving an absolute useable response rate of 38.3 per cent. To encourage student participation, each university offered a draw of a $50 gift voucher for completing both the pre- and post-surveys. Students’ participation in the pilot survey was on a voluntary basis and fully complied with the universities ethics guidelines.

The collected data were checked for normality and tested for reliability and validity. All constructs were found to be above the threshold recommended. However, there were some minor suggestions related to the questions’ instructions. Accordingly, the instruments were refined and also sent to the reference group for their feedback. The final copy of the instruments was deployed in four partner institutions to assess the effectiveness of VFTs. A copy of these pre- and post-survey instruments can be obtained from the project team members.

Apart from the questionnaires seeking students’ perceptions of various constructs, students also reflected through open-ended questions related to the skills and knowledge they expected to acquire, as well as skills and knowledge they actually acquired from the use of prototype VFTs. It was apparent from the results that students’ expectations for skills and knowledge were met through the introduction of VFTs. An opportunity was availed by asking students to report the two best aspects of using the VFTs and how the VFTs could be
further improved. Students found that the best features of the VFTs were the ease of access and the large amount of information on hand. In terms of improvements to the VFTs, students expressed that they would like to see more information, videos, and better images to enhance their learning experience. Details of the qualitative feedback in the form of word clouds are presented in Appendix D.

The pilot testing of the VFTs facilitated three key aspects. First, to familiarise students with VFTs as a learning and teaching tool; second, to seek early feedback from the VFT users on its features and functionality so that it could be incorporated in the new VFT; and, third, to test the survey instrument for evaluating the effectiveness of the VFT tool.

**Website and VFT development**

The website domain name was registered for VFTs and developed to house the project and help convey its background, including a range of resources, and display the VFTs of the hospitality industry tool. The VFT prototype was expanded by inviting a number of five-star hotels, restaurants, and wineries to participate in the project, and applying state-of-the-art technology to capture and convert into VFTs. This also allowed qualitative feedback through the pilot test, as discussed in the previous section. The new platform included improved immersive 360-degree panorama photos of keys areas of hotels and embedded a further series of appropriate high-resolution photos with descriptions. In addition, the quality of video recordings of interviews with hotel senior management teams was enhanced, and other operational documents were included to provide comprehensive details of managing hospitality businesses and to offer explore and compare functions. The VFT tool interface can also be accessed through the following URL: [www.virtualfieldtrips.edu.au/vft/](http://www.virtualfieldtrips.edu.au/vft/)

**Project implementation and evaluation**

**Project implementation**

The final version of the VFTs was completed and tested during December 2016. The up-to-date VFT interface connects with the intended learning outcomes of programs and constructively aligns with learning materials, seminar activities, and assessments. For example, the hospitality businesses featured in the VFTs serve as authentic learning contexts for assessment tasks related to evaluating design and layout principles, as well as management practices, to provide students with a structured approach to learning. All institutions offered their courses using a blended-learning format. A blended-learning format combines online digital media (the use of Blackboard, lecture capture, learning resources, and computer-aided activities in the form of VFTs) with traditional face-to-face teaching involving formal lectures and tutorials with the physical presence of academics and students. The main purpose of blended learning is to allow students flexibility of time, place, path, and pace so that they can manage their time with their other life commitments (Rooney, 2003; Watson, 2008).

**VFT learning barometer**

The evaluation of the project was also a vital component of the project. This involved the collection of data from students to assess the effectiveness of the innovative teaching tool. The examination of students’ engagement with the VFTs and its effect on student learning
outcomes depends on the quality of data gathered through different evaluative methods for
drawing sound conclusions (Denzin, 1970). Hospitality management students participated in
the implementation and evaluation of the VFTs in various campuses of the four partner
institutions. Students completed a paper-based survey expressing their expectations and
experiences using the VFTs. Please note that presently we are preparing to test our data
using structured equation modelling and for that reason have reported only some
descriptive statistics.

Table 2 provides demographic details of the respondents. Around 70 per cent of the students
were female, more than 50 per cent were aged between 18 and 22, and 86 per cent were
studying full-time. The split between domestic and international students was even. It is
interesting to see that about 85 per cent students had some form of industry experience in a
variety of industries and the remaining 15 per cent had no industry experience. Only 18 per
cent of students had attended a physical hotel field trip. When asked about hours spent on
VFTs per week, on an individual basis the mean score was 5.1 hours, and in groups, 3.2 hours.
This showed that students engaged with VFTs on a regular basis.

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>77</td>
<td>30.1</td>
</tr>
<tr>
<td>Female</td>
<td>179</td>
<td>69.9</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–22</td>
<td>133</td>
<td>51.9</td>
</tr>
<tr>
<td>23–26</td>
<td>81</td>
<td>31.6</td>
</tr>
<tr>
<td>27–30</td>
<td>19</td>
<td>7.4</td>
</tr>
<tr>
<td>Over 30</td>
<td>6</td>
<td>2.3</td>
</tr>
<tr>
<td>Missing</td>
<td>17</td>
<td>6.6</td>
</tr>
<tr>
<td>Study status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>221</td>
<td>86.3</td>
</tr>
<tr>
<td>Part-time</td>
<td>15</td>
<td>5.8</td>
</tr>
<tr>
<td>Distance education</td>
<td>20</td>
<td>7.8</td>
</tr>
<tr>
<td>Students’ origin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic</td>
<td>122</td>
<td>47.6</td>
</tr>
<tr>
<td>International</td>
<td>126</td>
<td>49.2</td>
</tr>
<tr>
<td>Exchange</td>
<td>8</td>
<td>3.1</td>
</tr>
<tr>
<td>Industry experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>20</td>
<td>7.81</td>
</tr>
<tr>
<td>Part-time</td>
<td>126</td>
<td>49.2</td>
</tr>
<tr>
<td>Volunteer</td>
<td>33</td>
<td>12.9</td>
</tr>
<tr>
<td>Completed internship</td>
<td>39</td>
<td>15.2</td>
</tr>
<tr>
<td>None</td>
<td>38</td>
<td>14.8</td>
</tr>
<tr>
<td>Physical field trip</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical field trip</td>
<td>46</td>
<td>18</td>
</tr>
<tr>
<td>None</td>
<td>210</td>
<td>82</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hours spent on VFTs</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>On their own</td>
<td>0</td>
<td>70</td>
<td>5.098</td>
<td>7.6</td>
</tr>
<tr>
<td>In group</td>
<td>0</td>
<td>24</td>
<td>3.194</td>
<td>3.5</td>
</tr>
</tbody>
</table>

A selection of key descriptive statistics is outlined to demonstrate how encouraging the
students’ learning, engagement, and satisfaction with the VFTs is. For instance, students’
learning outcomes related to Bloom’s taxonomy and tourism TLOs are reported in Table 3.
These learning outcomes are measured on a seven-point scale, with a minimum score of 4.77
for the knowledge of finance. This is typical of hospitality management students, as finance is not one of their strengths. However, knowledge concerning operations was among the highest at 5.46 and 5.29. Similarly, the scores of TLOs for applying knowledge and integrating theory and practice were among the highest at 5.47 and 5.35.

Table 3: Students’ learning outcomes

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bloom’s taxonomy of learning outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of operations</td>
<td>5.29</td>
<td>1.21</td>
</tr>
<tr>
<td>Knowledge of operations’ interaction</td>
<td>5.29</td>
<td>1.23</td>
</tr>
<tr>
<td>Knowledge of ‘real world’</td>
<td>5.22</td>
<td>1.25</td>
</tr>
<tr>
<td>Knowledge of roles and terminology</td>
<td>5.35</td>
<td>1.20</td>
</tr>
<tr>
<td>Knowledge of target markets</td>
<td>5.16</td>
<td>1.26</td>
</tr>
<tr>
<td>Knowledge of finances</td>
<td>4.77</td>
<td>1.33</td>
</tr>
<tr>
<td>Understand operations</td>
<td>5.46</td>
<td>1.10</td>
</tr>
<tr>
<td>Apply the VFTs to operations</td>
<td>5.30</td>
<td>1.18</td>
</tr>
<tr>
<td>Analyse operational aspects</td>
<td>5.34</td>
<td>1.10</td>
</tr>
<tr>
<td>Solve operations problems</td>
<td>5.04</td>
<td>1.22</td>
</tr>
<tr>
<td>Create new concepts and strategies</td>
<td>5.27</td>
<td>1.19</td>
</tr>
<tr>
<td>Tourism threshold learning outcomes (TLOs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply knowledge and skills</td>
<td>5.47</td>
<td>0.075</td>
</tr>
<tr>
<td>Integrate theory and practice</td>
<td>5.35</td>
<td>0.072</td>
</tr>
<tr>
<td>Work with others</td>
<td>5.34</td>
<td>0.077</td>
</tr>
<tr>
<td>Collect and analyse information</td>
<td>5.25</td>
<td>0.076</td>
</tr>
<tr>
<td>Reflect on my own conduct</td>
<td>5.16</td>
<td>0.081</td>
</tr>
</tbody>
</table>

Table 4 suggests that students’ learning experiences from VFTs have been positive.

Table 4: Students’ learning experiences of VFTs

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning experience of VFT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challenged my learning</td>
<td>4.49</td>
<td>1.37</td>
</tr>
<tr>
<td>Made the course interesting</td>
<td>5.10</td>
<td>1.38</td>
</tr>
<tr>
<td>Assessment made me more ‘job ready’</td>
<td>4.89</td>
<td>1.34</td>
</tr>
<tr>
<td>Skills/knowledge to be useful for my career</td>
<td>4.98</td>
<td>1.36</td>
</tr>
<tr>
<td>Better than other learning technologies I am used to</td>
<td>4.94</td>
<td>1.38</td>
</tr>
<tr>
<td>Learnt more from VFT than a real field trip</td>
<td>4.40</td>
<td>1.72</td>
</tr>
<tr>
<td>Enhanced my learning experience</td>
<td>5.02</td>
<td>1.33</td>
</tr>
<tr>
<td>Made easier to accomplish learning outcomes</td>
<td>4.92</td>
<td>1.30</td>
</tr>
<tr>
<td>Made learning more enjoyable</td>
<td>5.00</td>
<td>1.35</td>
</tr>
<tr>
<td>Helped to be an independent learner</td>
<td>4.92</td>
<td>1.34</td>
</tr>
<tr>
<td>Enhanced my ability to learn from others</td>
<td>4.82</td>
<td>1.44</td>
</tr>
<tr>
<td>Students’ satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied with the quality of VFT, a learning tool</td>
<td>5.13</td>
<td>1.40</td>
</tr>
<tr>
<td>VFT has met my expectations</td>
<td>4.92</td>
<td>1.41</td>
</tr>
<tr>
<td>Satisfied with VFT learning experience</td>
<td>5.05</td>
<td>1.37</td>
</tr>
<tr>
<td>This course has met my expectations</td>
<td>5.27</td>
<td>1.14</td>
</tr>
<tr>
<td>I would recommend taking this course to others</td>
<td>5.33</td>
<td>1.20</td>
</tr>
</tbody>
</table>
Students’ learning experience in terms of their satisfaction, they are very satisfied as the score ranges between 4.92 and 5.33. Similarly, the extent of students’ engagement with VFTs appears to be very strong, ranging from 4.04 to 5.96 (see Table 5 for details).

### Table 5: Students’ engagement with VFTs

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I spent more time studying due to VFT</td>
<td>4.04</td>
<td>1.37</td>
</tr>
<tr>
<td>I regularly attended lectures</td>
<td>5.14</td>
<td>1.64</td>
</tr>
<tr>
<td>I regularly attended tutorials</td>
<td>5.96</td>
<td>1.21</td>
</tr>
<tr>
<td>I learned how to organise my time</td>
<td>5.32</td>
<td>1.10</td>
</tr>
<tr>
<td>I sought advice from teaching staff</td>
<td>5.08</td>
<td>1.32</td>
</tr>
<tr>
<td>I kept up to date with my studies</td>
<td>5.44</td>
<td>1.08</td>
</tr>
<tr>
<td>Effort in assessment resulted in better marks</td>
<td>5.20</td>
<td>1.35</td>
</tr>
</tbody>
</table>

**Project evaluation**

Opportunities for both internal and external evaluation, and formative and summative evaluation, were embedded within the project development. Internal formative evaluation of progress, content, design, and deliverables occurred regularly via WebEx (teleconferences). The post-meeting actions were reviewed at the start of the subsequent meeting to ensure that the project was progressing. Other formative evaluations have included ongoing feedback from:

- the reference panel
- project manager (experience with OLT projects)
- participants at conferences and forums
- participating hospitality businesses.

An external evaluator, Associate Professor Mike Raybould, consulted with the project team in person, by videoconference, and by email exchange during the project. The project team would like to thank the evaluator for his constructive engagement and the detailed and very helpful evaluation report presented in Appendix E.

**Project dissemination and finalisation**

**Project dissemination**

The dissemination and wider adoption of the project involved the revision of the VFTs and promotion for its application by hospitality and tourism educators through various forums, and demonstrating the application of VFTs in higher education and vocational education institutions in Australia and overseas. Moreover, the transferability of VFTs to other fields and learning contexts has also taken place. Details of the VFT dissemination and its impact are expanded in Chapter 4.

**Project finalisation**

The final project report has been completed. In terms of the budget acquittals, it was submitted on 27 April 2018. It is worthy to note that all funds were appropriately used and
with effective management we were able to extend the scope of the project. The following post-project activities and publications are in place:

Future project activities

- The lead institution’s Learning Futures division has given an undertaking to maintain the VFT website and the learning and teaching tool for a two-year period until the end of December 2019.
- The VFT project leader will remain the contact person for the VFT project and offer pedagogical support to academics wishing to implement the VFTs for the period of two years until the end of December 2019.
- Project team members will continue to disseminate the VFT project in the future.

Future publications

- It is expected that there will be three publications by the end of December 2019.
  a. ‘Hospitality Management Students’ Acquisition of New Knowledge and Skills Through a Virtual Field Trip Experience’ (under revision).
  b. ‘Students’ Expectations and Experience of Skill Development and Employability Through Engagement with a Virtual Field Trip’ (working paper, draft).
Chapter 4: Project dissemination and impact

Rationale
This chapter furnishes a comprehensive account of the dissemination activities the VFT project team members undertook throughout the life of the project to ensure that aims and deliverables were not only met but also exceeded. Furthermore, although it is difficult to access the true impact of a project of this nature, an attempt has been made to gather relevant data to validate the project’s success. These two key aspects are discussed in this chapter, and final concluding remarks are also presented.

VFT dissemination

Publicity
The VFT project was publicised through various means.

- Project leader, Associate Professor Anoop Patiar, outlined the VFT project via video clip at Griffith University’s Celebrating Excellence in Teaching Week, November 2015.
- A media story was publicised by the Griffith Business School.
- Griffith Institute for Tourism published information about the VFT project in two newsletters:
  - www.thewebconsole.com/tools/dbm/campaign/view/campaign/562703/_campaign/5058f1af8388633f609c9d83f609cadb75a75dc9d
- Griffith Institute for Tourism homepage included the VFT project, see link
- Griffith Institute for Tourism under research report series section of the homepage will list the VFT project reports once finalised, see link
- Griffith Learning Futures home page under learning and teaching technology, emergent technologies among other projects, VFT project website outlining the VFT project, see link
- Griffith University, Department of Tourism, Sport and Hotel Management, ‘our research page’ outlining the VFTs project, see link
Progress report

The VFT project details and updates were presented to the Deputy Vice Chancellor (Administration), Griffith University, in March 2016 and September 2017. Other staff at the presentation were the director, Griffith online learning; dean (Learning and Teaching), Griffith Business School; director, Griffith Learning Futures; and manager, special projects, Griffith Learning Futures. All members were impressed with the concept and the progress made. They felt that the VFT concept could be expanded to other disciplines (Health, Engineering, and Business).

Webinar

On Wednesday 5 April 2017, the project leader, Anoop Patiar, team member Pierre Benckendorff, and project manager, Kayleen Wood, presented a webinar as part of the ‘Transforming Assessment Webinar Series April 2017’ (conducted by the ASCILITE SIG) titled ‘Enhancing Student Employability Skills Through Virtual Field Trips. This link provides access to the one-hour webinar video

http://transformingassessment.com/events_5_april_2017.php

The purpose of the webinar was to promote the VFT project outlining its aims and application to authentic learning, demonstrating the VFTs’ functionality, discussing the evaluation barometer, and presenting examples of pedagogy and assessment tasks. There were 27 participants from Australia and overseas, who actively engaged in discussions and navigated the VFT tool using their personal devices.

One participant reported, ‘I have logged on and have been exploring, it is great’; another participant also instantly said, ‘I have too. Very impressed’.

In terms of the VFTs’ application in other disciplines, three participants made the following comments:

‘It looks great, thinking about virtual hospital field trips to orientate year 1 BN nursing students’; ‘we’ve got a new hospital opening next year and are looking to do something similar to your VFTs too’; and ‘same issue of large number of students for nursing and midwifery – all students do not get clinical experience with all Level 1 teaching hospitals/clinical partners, such tool can help fill the gap’.

Another set of participants pointed out that:

‘I think the concept can be used for a lot of areas: medicine, nursing, agriculture, geography, architecture and so on. Any field where it would be good to give large numbers of students some exposure to the work environment; ‘I suppose the great thing about VFTs is that it allows students to visit work environments. The best examples are not always available locally’; and ‘I think the back of house areas of hotels is particularly interesting because those are the places that people normally cannot see. As a general public, we can all go into a front of house area’.
One of the participants asked a question: ‘Do the hotels and restaurants use the footage?’

Response: ‘Many hotels, restaurants and wineries were keen to have their brands featured in the VFT! It is a great sales tool for them, both as a business and for attracting future employees. In addition, a number of businesses have included the link to VFT as part of staff induction’.

Lead and partner institutions
The VFT project was presented at events hosted by the following project lead and partner institutions:

- The University of Queensland Tourism and Hospitality Cluster Retreat, Brisbane (VFT presentation, November 2015)
- ASCILITE Conference, Perth (VFT project details included with Simulations Project presented by Associate Professor Pierre Benckendorff, November 2015)
- Celebrating Teaching Griffith – Designing Disruption: Emerging Technologies in Higher Education (presented by Associate Professor Anoop Patiar, October 2016)
- Celebration of Teaching, The University of Queensland (presented by Associate Professor Pierre Benckendorff and Dr Richard Robinson, October 2016).

Soft launch
- The soft launch of the VFT tool was undertaken at Griffith University, Nathan Campus. The members of the reference panel, key development personnel from Griffith Learning Futures, and team members were invited to attend in person or via WebEx. Their comments and feedback were considered to further improve on the VFT tool’s features and functionality, September 2016.
- The web link of the VFT tool and its navigation details were emailed to all participating hospitality businesses so that they could comment on the accuracy of their property and provide feedback on the tool’s functionality. All concerns raised were addressed and resolved.

Conferences and forums
The VFT tool was presented at the following national and international tourism and hospitality conferences, where academics and researchers provided useful feedback and also generated interest in its use in the future.

- Office for Learning and Teaching Conference (poster), Melbourne, April 2016
- Joint Universities Symposium (Griffith University, The University of Queensland, Southern Cross University, and Bond University), Griffith University, Gold Coast, June 2016
- International Tourism, Hospitality, and Event Management Conference, University of Surrey, July 2016
**Hospitality institutions**

The VFT tool was also exhibited at a number of national and international tourism and hospitality institutions. Senior executives, hospitality academics, and researchers and students attended the VFT presentations. This allowed us to introduce and demonstrate the functionality of the VFTs and invite participants to integrate the tool in their teaching at the following institutions:

- AMITY School of Hospitality, AMITY University, Noida, India, January 2016
- International College of Management (Tourism and Hospitality Management), Sydney, November 2016
- William Angliss Institute, specialist centre for foods, tourism, hospitality and events, Melbourne, October 2017
- School of Business (Tourism and Hospitality Management), London South Bank University, October 2017
- Oxford School of Hospitality Management, Oxford Brookes University, October 2017
- Institute of Hotel Management (part of National Council for Hotel Management and Catering Technology*), Mumbai, January 2018
- AISSMS College of Hotel Management and Catering Technology, Pune, February 2018
- Maharashtra State Institute of Hotel Management and Catering Technology, Pune, February 2018

*not affiliated with national council
• The Emirates Academy of Hospitality Management, Dubai, April 2018.

*National Council for Hotel Management and Catering Technology (NCHMCT) is governed by the Department of Tourism, India, and is responsible for regulating 66 higher education institutions offering hotel management education in India. The director of the Mumbai Institute kindly circulated the VFT project details, including links, navigation instructions and the project leader’s, Associate Professor Anoop Patiar’s, contact details, to all 66 NCHMCT member institutes.

We have developed a promotional postcard publicising the VFT project and outlining the contact details (see Appendix F for the design and layout of the postcard). During the life of the project, approximately 1,000 postcards were distributed to delegates at the events outlined above and to students who used VFTs as a part of their course resource.

**Project impact**

**Google analytics**

Although it is difficult to assess the impact of the VFT project due to the significant time it took to develop and then implement and evaluate, a comprehensive set of statistical reports of individual visits to the VFT website (e.g. visitor viewing patterns, location, time spent) is gathered through Google Analytics Dashboard for WP (GADWP). This informs how the VFT website is performing and is useful for making improvements to the website in terms of attracting greater individual traffic, enriching user experience, and improving the actual content. The following dashboard demonstrates that within one year of the implementation, the outcomes are highly favourable.
Figure 2 shows the viewing patterns of the VFT website. In total, 33,476 pages were viewed and 8,610 sessions undertaken; there were 4,364 users and 927 organic users. The organic traffic occurs when individuals access the VFTs through a search engine. Although month-by-month organic traffic is small, on an annual basis it represents 17.5 per cent of the total traffic, thus indicating that the words used in the URL are easily accessible. It is worth noting that the spike in the use of the VFTs was experienced when it was implemented in Hong Kong during January 2017 and in the four partner institutions in Australia during March to May 2017, and when it was presented at key international conferences in June, October, and November 2017.

![Figure 2: Viewing pattern of VFTs Dec.–Nov. 2017](image)

The next indicator is the bounce rate representing the percentage of users who only visit one page of the VFT website and leave. Normally, a low rate is aimed for and an average rate of between 40 and 60 per cent is considered good. However, in the case of the VFT website the bounce rate during the main teaching months has been lower than non-teaching times, and the annual average is reported to be 28.68 per cent. These figures support that individuals explored beyond the first page of the VFT website and made adequate use of it. See Appendix G for details of the bounce rate. It is evident from the metrics that the design of the VFTs is robust, as on average it took 9.15 seconds to load the VFT page, individuals spent 109 seconds per page and 319 seconds per session on the VFTs. Fast loading pages are critical in engaging the present generation of students. As the information is well laid out and students became more proficient in accessing the VFTs over time, the time spent seems satisfactory. See Appendix H for further details of loading time. The countries where VFTs have been accessed are highlighted in blue in Figure 3. There are 66 different countries, well beyond where VFTs are implemented and presented. Figure 3 also shows that the VFT website has been visited a total of 7,291 times across the 66 countries. Indeed, these figures are satisfying and provide confidence in terms of the exposure of VFTs around the world.
Adoption of VFTs

Apart from the project partner institutions, there are at least 11 educational institutions around the world offering tourism and hospitality programs that have expressed interest in adopting the VFTs in their teaching (e.g. AISSMS College of Hotel Management and Catering Technology, Pune; Bond University, Gold Coast; Dusit Thani College, Bangkok; London South Bank University; Institute of Hotel Management Mumbai; Isenberg School of Management, University of Massachusetts, Amherst; Oxford Brookes University, Oxford; Strathmore University, Nairobi; Saxion University of Applied Sciences, the Netherlands; The Emirates Academy of Hospitality Management, Dubai; and William Angliss Institute, Melbourne). Moreover, the concept of the VFTs of the hospitality industry has created interest among other disciplines, as will be outlined next.

Evidence of VFT re-adaption

Since the inception of the VFT project, there has been evidence of its re-adaption and cross-disciplinary use, particularly at Griffith University. The VFT project has the potential to add value to other projects, as demonstrated in the following example:

- Griffith Grant for Learning and Teaching application titled ‘Embedding Indigenous perspectives in STEM disciplines: A virtual field trip approach project’. This is a joint project by Griffith Sciences, School of Environment, and Environmental Futures Research Institute. For details see https://www.griffith.edu.au/learning-futures/our-practice/recognising-teaching-excellence/learning-and-teaching-grants/griffith-sciences
- Griffith University Learning Futures has purchased a 360-degree camera and are inviting project ideas for possible immersive assessments

Concluding remarks

In concluding this report, the development of the innovative learning and teaching VFT tool supports authentic learning experiences by applying the constructive alignment principle to encourage the learners of today to be more active, as opposed to being passive learners. Indeed, providing learners with realistic and comprehensive sets of contexts and a variety of
hospitality businesses at an international level further enhances graduates’ ability to secure their chosen career options. The scholarly evidence of the integration of the VFT framework with hospitality management curriculum indicates that it increases students’ engagement with their program of study, improves their understanding of key hospitality management concepts, and enhances their learning outcomes in terms of satisfaction with their studies and improved grades. We have also identified future opportunities to develop similar VFTs in tourism and events and hospitality management disciplines, as well as other disciplines (e.g. health, engineering, education, and business).

It is anticipated that the VFT project will continue to expand with additional resources in years to come. The project can be accessed through the following URL: www.virtualfieldtrips.edu.au/vft/. Academics interested in implementing the VFTs in their teaching and undertaking research can seek assistance from the project leader as well as project team members.

**Project leader:** Associate Professor Anoop Patiar  
**Email addresses:** oltvirtualfieldtrips@griffith.edu.au or a.patiar@griffith.edu.au  
**Tel:** +61 07 373 56628
References


Enhancing student employability skills through virtual field trips in the hospitality industry


Enhancing student employability skills through virtual field trips in the hospitality industry


Appendix A

Certification by Deputy Vice-Chancellor (or equivalent)

I certify that all parts of the final report for this OLT grant provide an accurate representation of the implementation, impact and findings of the project, and that the report is of publishable quality.

Name: Professor Debra Henly

Date: 2nd March 2018
Appendix B: VFT home page

VIRTUAL FIELD TRIPS

Welcome to the Virtual Field Trip Website where a new generation of highly-skilled hospitality graduates across Australia, and potentially the world, will go about their business on the back of virtual learning experiences.

Virtual field trips to hotels are already enhancing the student experience at Griffith University following the roll-out of a pilot project as part of the International Tourism and Hotel Management program. The successful pilot led to $273,000 in Commonwealth funding from the Office of Learning and Teaching to extend the virtual initiative across Australia. The project has attracted strong interest from the hospitality sector in Asia and the United Kingdom, leading to international expansion.

Read more

LAUNCH VET
Appendix C: VFTs of hospitality businesses
Appendix D: Qualitative feedback from the pilot test

<table>
<thead>
<tr>
<th>What skills do you expect to learn from the VFT?</th>
<th>What skills did you learn from the VFT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What knowledge you expect to gain from the VFT?</td>
<td>What knowledge did you gain from the VFT?</td>
</tr>
<tr>
<td>What are the two best things about the VFT?</td>
<td>What suggestions can you offer to further improve the VFT?</td>
</tr>
</tbody>
</table>
Appendix E: External evaluator’s report

OLT Project: ID-15-4905
External Evaluator Final Review

Dr Mike Raybould
Associate Dean – External Engagement
Bond Business School
Bond University
Friday, 23 February 2018

Overview
This project set out to explore a novel, yet highly valuable, pedagogical tool for use in tertiary education. While the project tested these tools and approaches in a hospitality education context it should be noted that these approaches would have value in other disciplines, e.g. engineering, architecture.

Members of the project team were all highly experienced tertiary teachers and researchers from four different institutions.

With strong industry support the project team were able to expand the scope of the project and yet stay within budget. VFT on-line resources were originally planned for four hotels and two restaurants but ultimately were delivered for 14 hospitality businesses in three countries including eight hotels, four restaurants and two wineries.

External evaluator access
As external evaluator I have been invited to all project team meetings since November 2015 and have attended 8 project meetings (either in person or via telephone link) and some of the dissemination events. I have also been given access to all project documentation including applications, minutes of meetings and interim reports. I have also had an opportunity to review all the VFT online learning resources.

Project planning and governance
The project appears to have been well organised with clear objectives, action plans and budgets from the start. Gantt charts and standard project planning tools were used effectively to manage the project activities.
The initial project team included participants with a good range of skills in teaching, pedagogy, and resource development. Despite the loss of some key personnel during the project these people were replaced quickly, and the Project Leader successfully kept all four of the partner institutions engaged with the project. Project team meetings were held on a regular basis with good attendance either in person or via telephone / Skype links.

The project team was particularly successful in securing industry stakeholder support, without which the project could not have progressed, and they should be commended for that.
Schedule and budget
The project appears to have been completed on budget and largely on schedule. Some schedule changes were approved by OLT early in the project timeline I believe.

Project aims and deliverables
The project established 5 specific goals and I will comment on the extent to which I believe each of them has been achieved.

- Identify and test emerging technologies to provide an authentic and interactive VFT environment for developing TLOs and global employability skills;

The VFT resources delivered by this project include detailed visual case studies of each of the businesses. Interactive 360-degree images of key operational areas allow users explore the space, through a click-through tour, and access short video interviews with key personnel. Collectively these tools create an engaging learning environment that allow users to explore front-of-house and back-of-house areas that they would not normally have access to.

- Design and test authentic learning pedagogies and assessment tasks based on diverse range of VFTs including domestic and international hospitality settings;

The learning materials are authentic in so much as they give users access to functional areas of a hospitality business that they would not normally be able to see (e.g. a busy working kitchen or a loading bay). Currently the formative assessment of learning activities are very limited. This could be enhanced with ‘check your understanding’ quick quizzes or similar.

A pre and post evaluation instrument has been designed to assess the effectiveness of the students’ learning experience based on Biggs (1999) model. This appears to be a well-designed instrument based on sound prior research and was pilot tested with 215 users of the VFT resources in 2016. Based on the pilot test the instrument was refined and is currently being used by the four partner institutions.

The pre and post evaluation instruments are included in the appendix of the main report. Following the ‘About’ tab in the Virtual Field Trip’s home page opens a dialogue box that allows potential instructors to contact the site administrators and get more information on (i) embedding virtual field trips into your curriculum, and (ii) conducting research. I suggest a link to Instructor Resources could also be added to the Resources tab in the main menu.

- Identify and document solutions to the challenges associated with embedding VFTs into hospitality management curricula;

The research team have mapped the curriculum of sample hospitality courses and aligned the VFT experience to the learning outcomes, course materials, learning activities and assessment tasks within the four partner institutions. However, I think it needs an Instructors Guide, that could be used by an instructor from another institution, which contains subject guides and lessons plans that show clearly how the resources can be used to enhance teaching.

- Evaluate the contribution of VFT pedagogies to student satisfaction, threshold learning outcomes (TLOs) and global employability skills for the hospitality industry; and
The team have implemented the VFT at each of the four partner institutions and have used the learning evaluation instrument to evaluate the student experience and learning outcomes. The results of this research have been published in refereed academic journals (Patiar et al. 2017a; Patiar et al. 2017b).

- Encourage the adoption of VFTs by promoting authentic learning pedagogies, guidelines, and strategies by universities and vocational educational institutions offering hospitality management programs.

The project team have been very active in disseminating the VFT project nationally and internationally through webinars, instructor workshops, seminars, conference presentations and poster sessions. Three academic papers have already been published with another five in review or in development. These should be effective in promoting use of the resources among the target audience of tertiary teachers. The level of awareness about the project and the resources among this audience, certainly in Australia and the UK, is now high and there is increasing interest in using the resources in teaching.

**Legacy**
My main concern now is what happens to the resources once the project is completed. The resources will become outdated quite quickly and there needs to be a commitment from one institution at least to maintain the web-site and to provide support to new instructors who would like to use the tools.

Dr Mike Raybould
Appendix F: Promotional postcard

Virtual Fieldtrips in Hospitality Education

VFTs of hospitality businesses present an alternative pedagogical approach to blending academic and practical learning by offering rich information, flexible access, and an authentic learning experience. They provide an opportunity to showcase the operations of hotels and independent restaurants, and expose students to a variety of different designs and layout principles, and management practices.

As additional businesses are added to the VFT suite, students have greater scope to compare and contrast various important features.

For further details please contact
Anoop Patiar (Project Leader)
Kayleen Wood (Project Manager)
email: olivirtualfieldtrips@griffith.edu.au

Project Deliverables
- Develop and trial hospitality businesses’ VFT
- Design curriculum and align learning outcomes, assessment and course materials to VFT
- Embed and evaluate the use of VFTs in the partner institutions
- Create a Good Practice Guide
- Produce a series of reports and academic papers
- Disseminate project through presentations, workshops and webinars
- Develop a dedicated project website to
  - provide resources for educators

Support for this project has been provided by the Australian Government Office for Learning and Teaching. The views expressed in this document do not necessarily reflect the views of the Australian Government Office for Learning and Teaching.
Appendix G: Bounce rate % of VFT visitors Dec.–Nov. 2017
Appendix H: Time spent on VFTs (seconds) Dec.–Nov. 2017

![Bar Chart]

- Page Load Time
- Time on Page
- Session Duration