# Bringing Project Management to life: The value of experiential learning through Virtual tours and engagement with Project professionals

Adigun, Lydia[a] Pontin, David[a]

WMG, University of Warwick, UK[a]

*Corresponding Author's Email: L.adigun@warwick.ac.uk*

**KEY WORDS: Virtual tours, Experiential learning, Project Management, Project Management professionals**

## SUMMARY

This paper explores the significance of experiential learning in project management education by utilising virtual tours and engaging with industry professionals. In collaboration with an external organisation, we developed a virtual tour video that showcases real world project management practices. The video provides a comprehensive view of a major project, featuring insights from more than 40 professionals. Inside the classroom, we combined this virtual tour with direct interactions with project professionals from the organisation. Students gained firsthand perspectives on how to apply theoretical concepts in practice. Feedback indicated that the virtual tour and engagement with professionals provided valuable real-world context, effectively bridging theory, and application. Students appreciated the interactive and well-structured experience. To enhance its impact further, we suggest diversifying perspectives, extending its duration, and striking a balance between theory and practical content.

## INTRODUCTION

Experiential learning is acknowledged as a teaching method that connects theory with real world application. In the years there has been development, in using technology, particularly virtual tours and direct interaction with professionals in various projects. This approach, to learning has proven to be innovative and fruitful. This paper delves into the significance of learning via tours and engaging with project professionals shedding light on how it enhances knowledge acquisition and skill development (Kolb, 1984; Yardley et al., 2012).

According to Kolb's (1984) experiential learning theory, direct experiences followed by reflection are critical for meaningful learning. Virtual tours and interactions can provide powerful experiential learning opportunities for students (Yardley et al., 2012). Experiential methods enable students to bridge theory and practice, develop professional skills, and construct knowledge through applied experiences (Krakowka, 2012).

## LITERATURE REVIEW

Traditional classroom instruction, which relies heavily on lectures, has well known limitations when it comes to facilitating meaningful learning and skill development (Sharma, 2018). On the other hand, extensive research supports the benefits of active and experience-based teaching methods. David Kolb, a pioneering figure in this field, established the theoretical foundations of experiential learning by highlighting the crucial role of firsthand experiences in acquiring knowledge (Kolb, 2014). By engaging students in real world scenarios, they gain valuable contextual insights and practical abilities that cannot be solely achieved through lectures (Reck, 2016; Sangpikul, 2022). Experiential approaches encompass a wide range of strategies such as field trips, internships, case studies, hands on projects and event planning that allow for the application of concepts. For maximum effectiveness, these experiences should authentically mirror professional realities while presenting an optimal level of challenge (Sangpikul, 2020b). Contrary to common misconceptions, experiential learning fosters rigorous development not only in technical skills but also in interpersonal abilities (Hicks,1996). Experiential learning, which focuses on hands on practice and reflection, is highly beneficial for developing project management skills (Kolb, 1984). Virtual tours offer immersive simulations of real-world project environments, providing learners with spatial awareness and contextual understanding (Dalgarno & Lee, 2010). Engaging directly with project professionals helps connect classroom concepts to industry practices, offering valuable insights into challenges and best practices (Collins & Amabile, 1999). By combining virtual tours with interactions with professionals, the effectiveness of experiential learning is significantly enhanced. Virtual tours lay a solid foundation of understanding so that students can apply their knowledge more effectively when engaging with professionals (Fonseca et al., 2021). Research shows that virtual tours improve retention, comprehension, and spatial awareness (Dede et al., 2008). Interacting with professionals further enhances learning by enabling the application of knowledge to real world problems. This experiential approach also develops critical skills such as communication, teamwork, problem solving and adaptability (Bilbao Osorio et al., 2013). This approach inspires student motivation and engagement (Deterding et al., 2011). However, effectively facilitating virtual and professional interactions comes with its own set of challenges. Educators must ensure access to technology resources while also ensuring skilled moderation during virtual experiences and authentic engagement with professionals (Hamari et al., 2016). Thoughtful design is required to maintain relevance and value.

The core principles of experiential learning emphasise direct experience as a crucial element for growth and transformation through reflection. It also highlights the importance of integrating theory with practice (Kolb & Kolb 2017). Learning is viewed as an ongoing process that involves synthesising experiences and ideas. Applying knowledge leads to new experiences and further reflection. Numerous studies have confirmed the effectiveness of experiential learning across different educational settings. A meta-analysis conducted by Walker and Dotger (2020) consistently showed positive impacts on learning outcomes.

Benefits of virtual tours encompass various advantages such as acquiring knowledge, developing skills and experiencing emotional gains like increased confidence. Active experimentation is emphasised as a crucial stage that supports the transfer of learning. The impact of virtual tours is facilitated through immersive technologies like 360-degree videos and augmented or virtual reality, which create simulations of real-world exploration (Choudhary et al., 2021). Kolb (1984) proposed that concrete experiences form the foundation for reflection and conceptualisation. Well-designed virtual tours effectively provide learners with this initial experiential stage, especially in situations where access to physical locations like construction sites or distant destinations may be challenging. Extensive research supports the positive impact of virtual tours on learning outcomes. A recent meta-analysis conducted by Chen et al. (2022) revealed consistent effects on cognitive aspects, including increased knowledge acquisition, comprehension, recall and transferability. Furthermore, virtual tours contribute to enhancing spatial knowledge and awareness (Stoffregen et al., 2021). These tours promote engagement and motivation among learners (Merchant et al., 2014). In the field of project management education specifically, virtual tours offer an immersive exposure to the complexities associated with real world project environments and processes (Fonseca et al., 2021). Students acquire firsthand knowledge of scale, sequencing, limitations, and integration as they navigate through virtual environments (Mikropoulos & Natsis, 2011).

The involvement of professionals in educational projects holds immense value. By connecting students with industry experts, provide them with experiential learning opportunities (Collins & Amabile, 1999). These professionals offer insights and real-world context that can only come from being in the field. Students gain an insider's perspective on the challenges, standards, and practices. Through dialogue and discussion, classroom theories are translated into practical applications. This exchange of ideas enhances their understanding and helps develop critical thinking skills (Wurdinger & Allison, 2017). Professionals also encourage students to visualise how they can apply their competencies in future professional settings. In the realm of project management education specifically, professionals shed light on how classroom methods translate into actual projects. This not only provides tactical guidance but also serves as strategic mentorship. By exposing students to the complex realities of projects early on, professionals inspire them to strive for excellence by showcasing their expertise and pride in high quality work (Andrews & Clark, 2014).

Combining virtual tours with interactions with professionals offers a comprehensive learning experience that leverages the strengths of both approaches. Virtual tours establish a solid foundation by immersing students in a specific environment that is relevant to their studies. Professionals then take it a step further by bringing this environment to life through their expert insights within that established landscape. Virtual tours initiate the experiential learning cycle by providing real life experiences. Meaningful discussions among professionals enhance reflection and facilitate the application of concepts in practical situations (Fonseca et al., 2021). Learners develop a comprehensive understanding and strategic thinking skills. The combination of active learning activities promotes higher order thinking abilities and encourages individuals to take initiative. This fosters curiosity and inspires learners to explore further. By gaining confidence through experimentation, individuals are better prepared for the complexities they may encounter in their professional careers (Wurdinger & Allison, 2017).

## CONTEXT AND DESCRIPTION OF PRACTICE

In response to the evolving educational landscape following the onset of the pandemic, there has been a growing demand for more immersive learning experiences within our Project Management module. Recognising the value of experiential learning, our team embarked on a journey to enhance our curriculum by incorporating industrial visits. One innovative solution that emerged was the development of a virtual tour video, aimed at providing firsthand insights into the intricacies of effective project and programme management as practiced by seasoned professionals in real workplace settings.

To bring this vision to life, we formed a dedicated project team. During the initial kick-off meeting, we identified an opportunity to secure funding from Industry and Stakeholders forum and EPSRC Centre for Doctoral training in sustainable materials and Management at University of Warwick in funding earmarked for fostering innovative teaching and learning endeavours, with a specific emphasis on building robust industrial relationships. With the funds secured, we took the bold step of reaching out to new industrial partners who had not previously engaged actively with the university. Our objective was clear: to establish a mutually beneficial relationship wherein we could collaborate to demonstrate cutting-edge project management practices in action. As our outreach efforts bore fruit and industrial interest in our initiative grew, we embarked on the journey of crafting a preliminary storyboard. This storyboard serves as the blueprint for our virtual tour video, offering a comprehensive overview of its design. Within the video, we showcase the participating organisation's broader project, programme, and portfolio management methodology. A 30 minute professionally edited video of a series of clips from interviews explaining aspects of a project/programme

from multiple aspects explaining the challenges encountered and solutions arrived out concerning a recent significant programme which covered their United Kingdom operations and multiple sites. This gives firsthand knowledge of recent project behaviour and therefore stimulates critical thinking concerning what current good/best practice might look like. It also stimulates further questioning in the Question & Answer session.

Subsequently, we zoomed in on a specific project, guiding viewers through its entire lifecycle. The virtual tour was not merely a passive experience; it actively engaged over 40 seasoned professionals, each sharing their invaluable insights and experiences from their work on various projects. Their firsthand accounts served as a bridge between theory and practice, making the learning experience both informative and relatable.

Within the classroom setting, our approach was structured to maximise the educational impact. We initiated the session by providing students with a comprehensive overview of different project management methodologies. This groundwork set the stage for what was to come, a virtual tour video that would take them deep into the heart of real-world project management. As the students absorbed the virtual tour video, they were encouraged to dissect the content, extracting meaningful lessons and insights. It was at this juncture that professionals from the same organisation made their entrance. These industry experts not only introduced themselves but also generously shared their career journeys and current roles. Their narratives were tightly interwoven with ongoing projects, highlighting the practical application of the skills being discussed. Crucially, these professionals articulated the significance of specific skills that proved instrumental in delivering successful projects. This real-world context breathed life into the abstract concepts the students had encountered earlier.

## EVALUATION OF PRACTICE

The students, having witnessed the virtual tour and absorbed the professionals' wisdom, now had a connection to the subject matter. Their questions became pointed and relevant, reflecting their newfound understanding and curiosity. To cement their learning and encourage reflection, students were tasked with writing brief reflections on the insights they had gleaned from the session. This reflection exercise not only solidified their comprehension but also encouraged them to internalise the real-world lessons imparted by the industry experts. In essence, our approach brought together the best aspects of both worlds, the immersive experience of a virtual tour and the enlightening interactions with industry professionals. It was an engaging and dynamic educational initiative that not only provided students with practical insights but also fostered a deeper understanding of project management nuances in the real world.

We also received feedback through one-to-one informal conversation, "stop, start, continue" regular feedback after class sessions and final formal feedback from Module evaluation survey from students to assess their evaluation. The most common theme that emerged was the high level of insight gained from the virtual tour, which greatly enhanced their comprehension of project management methodologies and their practical applications. Additionally, many students mentioned how effectively they were able to connect theoretical knowledge to real world practice. They found the virtual tour and interactions with professionals to be valuable, making the module highly interesting, interactive, and well structured. Students expressed enthusiasm, as evidenced by the extended duration of the Q&A sessions with project professionals. These sessions often exceeded the allocated time, highlighting the value of continuing such collaborations with industrial practitioners and professionals. This approach not only offered authentic examples for analysis but also provided diverse perspectives and ample time for exploration. They also emphasised a preference for more video content rather than excessive theory. Lastly, they encouraged maintaining excellent tutors who possess genuine passion for sharing stories and experiences.

The evaluation of the pilot delivery of this module has yielded valuable feedback from students, providing us with valuable insights into its strengths as well as areas that can be further improved upon. Based on the feedback received, here is an evaluation of the strengths.

**Informative Virtual Tour**: The feedback consistently highlighted the virtual tour as a valuable and insightful component. Students found it to be highly informative, providing them with a deeper understanding of project management methodologies and their practical applications. This indicates that including virtual tours significantly enhances the educational experience by offering students a real-world perspective on the subject matter.

**Bridging Theory and Practice:** Students appreciated how well theoretical knowledge was linked to practical application in this module. This is an important aspect of project management education, and the positive feedback suggests that this module effectively bridges the gap between classroom learning and real-world practice.

**Interactive and Well-Structured Module:** The feedback emphasised that not only was the module informative, but it was also interactive and well structured. The integration of virtual tours, guest lectures and real-world examples created an engaging learning environment that fostered student interest and active participation.

**Valuable Guest Lectures:** The inclusion of guest lectures from industry professionals stood out as a particularly valuable aspect of this module. Students found these lectures insightful

and helpful, indicating that they gained practical insights and real-life examples from experts in the field.

**Student Engagement**: Feedback indicates that students were highly involved and motivated by the module. They expressed a strong desire for both tutors and guest lecturers to maintain this high level of enthusiasm.

**Areas for Improvement:**

In improving diversity of perspectives in engineering education, this approach has helped to broader range of perspectives. By incorporating viewpoints and experiences from different industries or sectors like SMEs, charity sectors, creative sector, arts, culture, media, and humanitarian, we can offer a more comprehensive understanding of project management.

Overall, the evaluation showcases the strengths of the module, including the effectiveness of virtual tours, connecting knowledge to practice and engagement with professionals. It also provides valuable feedback for further improvement by emphasising the importance of diversity, extended duration, and a stronger focus on practicality. Implementing these suggestions can create an even more enriching educational experience in future deliveries of the module.

## CONCLUSIONS & RECOMMENDATIONS

In essence, our practice represents a dynamic fusion of pedagogical innovation, industry collaboration, and experiential learning, culminating in the creation of a virtual tour video that promises to elevate the educational experience for our students while forging enduring connections with our industrial partners.

In conclusion, experiential learning through virtual tours and engagement with professionals breathes life into project management education. Virtual tours create an immersive environment that captures complexity and scale while dialogues with practitioners share insider expertise to reinforce competencies. This combination offers rigorous preparation for future practice by fostering synthesised understanding. Overcoming logistical challenges is crucial for these innovative methods to significantly enrich learning experiences. The enthusiastic response from students validates the power of contextualised experiences guided by industry experts. This progressive pedagogy equips students with meaningful capabilities to tackle real world demands effectively.

## REFERENCES


Andrews, J., & Clark, R. (2014). *Peer mentoring works! How peer mentoring enhances success in higher education*. Aston University.

Bilbao-Osorio, B., Dutta, S., & Lanvin, B. (Eds.). (2013). *The global information technology report* 2013. World Economic Forum.

Chen, S., Dalton, A. J., Tang, Z., & Laux, D. (2022). *Impacts of virtual reality on spatial learning: A meta-analysis. Journal of Computing in Higher Education*, 34(3), 758-780.

Choudhary, R., Dullo, P., & Tandon, R. (2021). *Virtual reality environments in higher education: a bibliometric and scientometric analysis*. Journal of Applied Research in Higher Education.

Collins, M. A., & Amabile, T. M. (1999). *Motivation and creativity*. In R. J. Sternberg (Ed.), Handbook of creativity (pp. 297–312). Cambridge University Press.

Dalgarno, B., & Lee, M. J. (2010). *What are the learning affordances of 3-D virtual environments?* British Journal of Educational Technology, 41(1), 10-32.

Dede, C. J., Jacobson, J., & Richards, J. (Eds.). (2017). *Virtual, augmented, and mixed realities in education*. Springer.

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). *From game design elements to gamefulness: defining gamification*. In Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments (pp. 9-15).

Fonseca, D., Martí, N., Redondo, E., Navarro, I., & Sánchez, A. (2021). *Relationship between student motivation and virtual tours and remote experiments: A case study on electrical engineering education*. Computers in Human Behaviour, 121, 106787.

Hamari, J., Shernoff, D. J., Rowe, E., Coller, B., Asbell-Clarke, J., & Edwards, T. (2016). *Challenging games help students learn: An empirical study on engagement, flow and immersion in game-based learning. Computers in human behaviour*, 54, 170-179.

Hicks, R.E., (1996). *Experiential learning in a postgraduate project management programme*. Education & Training, 38(3), pp. 28-38.

Kolb, A. Y., & Kolb, D. A. (2017). *Experiential learning theory as a guide for experiential educators in higher education*. Experiential Learning & Teaching in Higher Education, 1(1), 7-44.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.

Krakowka, A. R. (2012). *Field trips as valuable learning experiences in geography courses.* Journal of Geography, 111(6), 236-244.

Merchant, Z., Goetz, E. T., Cifuentes, L., Keeney-Kennicutt, W., & Davis, T. J. (2014). *Effectiveness of virtual reality-based instruction on students' learning outcomes in K-12 and higher education: A meta-analysis*. Computers & Education, 70, 29-40.

Mikropoulos, T. A., & Natsis, A. (2011). *Educational virtual environments: A ten-year review of empirical researc*h (1999–2009). Computers & Education, 56(3), 769-780.

Reck, R.M., (2016). *Experiential learning in control systems laboratories and engineering project management*, University of Illinois at Urbana-Champaign

Sangpikul, A. (2020b). *Learning about the real-world in MICE education: The case of exhibition learning from Thailand*. Journal of Convention & Event Tourism, 21(3), 225–253. https://doi.org/10.1080/15470148.2020.1768190

Sangpikul, A. (2020b). *Learning about the real-world in MICE education: The case of exhibition*, A., 2022. Experiential Learning in a Two-event Project in Thailand. Event Management, 26(3), pp. 679-684.

Sharma, E.K., (2018). *Time To Rely More On Experiential Learning: "Management schools must, therefore, in his view, "rely more than before on projects, experiential learning and internships."* Business Today.

Stoffregen, T. A., Pawlik, K., & Schmuckler, M. A. (2021). *Effects of pictorial realism of virtual environment tours on wayfinding and spatial knowledge transfer*. Virtual Reality, 25(4), 703-715.

Tavanti, M., & Wilp, L. P. (2018*). Design, development, launch, evaluation (DDLE) Rubric: An Assessment of Experiential Learning 4.0 Community-Based Projects*. Business Education Innovation Journal, 10(2), 90-100.

Walker, C., & Dotger, B. (2020). *Exploring and addressing equivocality about experiential education: A meta-analysis of outcomes for K-12 students*. Journal of Experiential Education, 43(3), 218-237.

Wurdinger, S. D., & Allison, P. (2017). *Faculty perceptions and use of experiential learning in higher education.* Journal of e-Learning and Knowledge Society, 13(1), 15-26.

Yardley, S., Teunissen, P. W., & Dornan, T. (2012). *Experiential learning: Transforming theory into practice.* Medical Teacher, 34(2), 161-164.