



Vol.8 No.1 (2025)

Journal of Applied Learning & Teaching

ISSN : 2591-801X

Content Available at : <http://journals.sfu.ca/jalt/index.php/jalt/index>

Impact and implementation of experiential learning: An industry-university partnership case study

Cubie L. L. Lau^A A *University College Dublin, Singapore*

Shawn Wong^B B *University College Dublin, Singapore*

Keywords

Experiential learning;
higher education;
industry partnerships;
Kolb's learning cycle;
Singapore.

Abstract

Management education faces challenges. Expectations from various stakeholders, governments, employers and learners have compelled higher education institutions to reimagine students' learning experiences and address the skills gap in the job market. One major challenge is course design and delivery. Education needs to be both relevant and practical as students are one step away from entering the workforce. Therefore, incorporating experiential learning into the curriculum is highly desirable. Experiential learning pedagogy is growing in popularity in higher education as it provides students with invaluable experience working on real business cases. It also prepares them for their professional endeavours ahead.

This paper shows an industry collaborative project of University College Dublin (UCD) in Singapore. The project required students to collect firsthand data and apply their knowledge and skills to building a sustainable three-sided marketplace of online food delivery service. The four components of Kolb's learning cycle – concrete experience, reflection observation, abstract conceptualisation, and active experimentation – have been shown to transform students' learning experiences and achieve a variety of learning outcomes. This paper also documents the project goals, work progress, obstacles encountered, and reflections.

Correspondence

cubie.lau@ucd.ie ^A

Article Info

Received 25 January 2024

Received in revised form 16 October 2024

Accepted 8 December 2024

Available online 7 January 2025

DOI: <https://doi.org/10.37074/jalt.2025.8.1.5>

Introduction

The world is changing fast, and companies and governments are looking for graduates who are prepared to solve open problems and will be career and industry-ready (Teng, 2023). To meet this demand, more universities have responded to integrate industry experience with learning into their curricula and, more importantly, work closely with industry partners in internships and curriculum structure (Lim, 2023).

Innovation in curriculum and learning is important, especially in countries where education can reshape learners' destinies and competition is keen. Singapore is an example. As an education hub, Singapore's education environment is welcoming and open to partnership and collaboration. The environment presents both opportunities and challenges. As of 2017, the Council for Private Education stated that approximately 77,000 local and 29,000 international students were enrolled in private tertiary colleges in Singapore with the most popular offering UK university qualifications via partner institutions (Spurling, 2017). The number has increased after the COVID-19 pandemic due to Singapore's effective management of the pandemic (Business Times, 2022). There are more than 120 private education providers in Singapore that offer higher education (Spurling, 2017), and the competition is rising. To stay on top, private education institutions (PEIs) need to, among other things, provide hands-on learning, flexibility, and double majors.

The aim of this paper is to describe an experiential learning approach in the teaching of business strategy at the University College Dublin (UCD) Singapore campus. It describes how Kolb's four-stage learning cycle transforms student experience into effective learning. It also reveals the challenges of designing and implementing such a pedagogical approach.

Evolving education landscape in Singapore

The word 'education' derives from two Latin roots: *educare*, to train, to mould, and *educere*, to draw out, to lead out (Gioia, 2019). Education is the transmission of knowledge, skills, and character traits. It is the process of facilitating learning which can take place in various forms.

Singapore is a city in Southeast Asia of about six million people. With few natural resources, human capital development through education has always been a main policy priority over the decades (Kwek et al., 2023; NCEE, 2016). The Singapore education system is evolving. It has drawn inspiration from diverse educational models, for example, Germany's vocational education system, which emphasises practical skills and industry relevance (Kong, 2024). It has also changed from a narrow to a more balanced holistic student development. The transition to and success of holistic education also depends on pedagogical innovation, instructional quality improvement, and tighter industry-academia tie-ups (Kwek et al., 2023; Teng, 2023). Education Minister Chan Chun Sing added that educators need to update their skills as "beyond transmitting knowledge, they are facilitators of discovery and learning" (Teng, 2023). They also need to explore new pedagogies

and ensure the relevance, innovation, and currency of the curriculum (Garate, 2023; Sam, 2022).

On the other hand, companies cannot and must not passively wait for the 'perfect worker' to be developed for them, he said. Companies must be active partners in shaping students' interests and skill sets early and must work with academia to train workers, said Education Minister Chan Chun Sing in an interview with the Singapore newspaper, The Straits Times (Teng, 2023).

Studying in a higher private education institution

Higher education is offered at institutions such as colleges, universities, community colleges, and vocational-technical schools. These are platforms for students to pursue further education in their fields of interest. Institutions provide advanced knowledge, information, theories, and case studies for them. Students can learn more about their respective subjects and get prepared before they enter their fields.

"Education is the systematised acquisition of experience. The university is the place to do it", (W. Woon, cited in Lim, 2023). Singaporean students, who do not meet the education qualifications of the public-funded universities or who have other reasons, attend private education institutions (PEIs). Many international students are sent from places like mainland China by families who want their young ones to have a degree and opt for PEIs. The welcoming education environment in Singapore has opened huge opportunities for international students and foreign universities alike. One study states that over one-third of the private sector student intake in Singapore was international (Spurling, 2017), and the number of international students was approximately 58,000 in 2021 (Go, 2022).

The private education sector has traditionally been perceived as an alternative education option for Singapore students who have missed out on their education qualifications due to mainly low academic performances (Go, 2022). However, things have changed over time. The private education sector provides a variety of unique experiences that can be extremely beneficial, as well as assist students in becoming productive members of Singapore's workforce. PEIs provide a faster route to the working world. PEIs also provide flexibility, double-degree courses, and hands-on learning not available in other universities (Lim, 2023). Therefore, they have attracted not only local but also international students, often from neighbouring countries. For example, a graduate from Curtin University Singapore, an Australian school, commented that the experience was beneficial because it allowed him to interact with mostly international students and instructors without needing to head overseas (Yeo, 2024).

University College Dublin (UCD) whose courses are offered in Singapore via Kaplan Higher Education Academy (a private education institution), are subjected to different operating contexts when compared to Singapore's public universities. The competition among private providers is very tough, not to mention the competition between public and private universities. There are more than 120 private education

providers in Singapore (Spurling, 2017). A few key players dominate the sector. For example, Kaplan runs a Singapore campus that teaches thousands of students enrolled in degree programmes offered by ten universities from the UK, Ireland, and Australia. It offers over 450 academic and professional certification programme options for higher learning and skills development (Kaplan, 2023). Given the growth of international students and competitors in Singapore, it is important that private education institutions (PEIs) take a proactive stance towards student learning experiences. A one-size-fits all model will soon be dated.

Moving towards a skills-first approach

Common approaches in higher education have mainly relied on lectures, projects, presentations, case studies, assignments, tests, and exams. With current methods, it would be a professor or lecturer who transmits information to the students in the form of a lecture, with limited learning outcomes. The students in this type of course are like an empty cup, waiting for the lecturer to pour knowledge into the cup. This teaching method is a form of passive learning in which students do not need to examine their feelings, thoughts, and understanding of the subject matter. In other words, the lecturer spoon-feeds the students. Freire (1970), in *The pedagogy of the oppressed*, famously called (and critiqued) this depositing approach to education the 'banking concept of education'. Learners are expected to receive, memorise and repeat information as a passive learner. These methods are not entirely ineffective, but they are not enough or efficient to meet the needs of today's society. Without a doubt, students can get knowledge related to the subject they chose and the field. However, we also need to equip students with the necessary skills to navigate the real world. An article published by the World Economic Forum (2019) suggests that the Fourth Industrial Revolution and ever-changing demands of the job market have created new challenges to the higher education model. For example, there is a shift towards a "skills over degrees" model (World Economic Forum, 2019).

Chamorro-Premuzic and Frankiewicz (2019) said, "Employers need skills, not just knowledge or titles. Students want jobs, not knowledge or titles" (pp. 2-3). Nowadays, employers are not only looking for good results and knowledge but also skills such as active networking, continual upskilling (Lau, 2023), adaptability, creativity (Thian, 2024), and job-specific skills and experience, which employers desire (SIT, 2023). These factors are increasingly important in the job market. Singapore Education Minister Chan Chun Sing put forward, "The skills to learn, learn fast, unlearn, and relearn, become more important than getting a particular grade at a particular point in life" (cited in Ng, 2022).

In a panel discussion on aligning curricula with a skills-based economy, Mr. Patrice Choong from Ngee Ann Polytechnic (Thian, 2024) stressed that "university graduates are looking to boost their internship and experiential learning experiences" (p. 4). Students can bring together skills from academia and experience when they graduate. To drive the ecosystem forward towards a skills-based hiring approach, collaboration between employers, adult learning providers,

and educators is, therefore, key. Teaching 'hands-on' skills to students will give them a chance to stand out from other candidates when they apply for jobs after graduation (Volansky, 2020).

Reimagining education: The post-COVID-19 pandemic era

The world has been fighting the COVID-19 pandemic since early 2020. Many key industries are affected, forcing them to alter their business practices. In the period of COVID-19, due to policies such as lockdowns, many overseas students could not take physical classes and exams. Universities moved from in-person to home-based learning. Teachers and students were forced to adapt their teaching and learning styles. In particular, the pandemic has reshaped pedagogical designs, disrupted learners' interactions and socialisation and disturbed instructors' and learners' involvement (Sutton & Jorge, 2020; Salinas-Navarro et al., 2024).

There are pros and cons of remote learning. Students and teachers did not have to commute and this saved time on commuting. Also, schools saved a lot of money on electricity and water bills. However, there are disadvantages. Some students found it challenging to communicate with each other and stay focused. Many students experienced academic burnout due to the lack of connection and interaction with classmates (Canty et al., 2020; Kwan, 2022). In Singapore, there was even a case where online learning was hacked, causing students' concern about privacy and security (Tan et al., 2022).

Furthermore, remote learning has made it hard for teachers to connect with the students and increase student engagement. Students valued the in-class experience with the opportunity to inquire and review material and appreciated the online experience for its demand for self-directed thinking, though they also longed for interpersonal dialogue (Kemp, 2020; Stafford, 2020). Wisely blending face-to-face and online learning tasks with student preference and game-based learning platforms such as Kahoot! and Mentimeter will make online learning less boring and more engaging.

The COVID-19 pandemic has also changed the way we work, we upskill and improve our capabilities (Sutton & Jorge, 2020). Melanie Weaver Barnett at the University of Michigan's Ross School of Business told People Matters (Kang, 2020), "The lightning-fast changes associated with working in the COVID-19 pandemic have revealed vulnerabilities that make it clear organisations have significant gaps to fill in their capability sets. Some of these critical gaps appear in areas of supply chain resilience, digitisation and leading virtual teams" (p. 3). To fill skill gaps, some companies actively work with learning institutions to train their employees in the skills they need. For example, Mastercard in Asia Pacific has partnered with the National University of Singapore (NUS) to enable employees to access subsidised courses in important functional areas. For example, data analytics and data science, machine learning, and cybersecurity, and other soft skills such as higher-order cognitive thinking, emotional intelligence, and social skills for the future of work (Kang,

2020). In an online seminar, Mr. Raghav Gupta, Managing Director (India and APAC) of Coursera shared a similar view. He commented that the future of industry requires professionals who have a combination of digital, data, and human skills. He said, "I think that is a good starting point for academia to think about for getting students ready for the future of work" (Gupta et al., 2021). How can higher education providers help students acquire degrees and, at the same time, real-world skills simultaneously?

Experiential learning: A path to practical proficiency

There is no doubt that the pandemic, plus changing expectations and experiences of learners and employers have changed the ways of teaching and learning. Nowadays, higher education requires active approaches for effective learning and student engagement (Salinas-Navarro et al., 2024). Educational reform requires student participation. Nothing works if students do not work. Serdyukov (2017) says, "When we try to innovate education, we often leave students out of the equation. We do not innovate in students' learning, their mind, attitudes, behaviours, character, metacognition, and work ethics enough. Yet, we try everything we can to improve teaching, while what we actually need is to improve learning" (p. 20).

Gono and de Moraes (2023) posit that greater engagement through student motivation, effective communication, and involvement in the learning process is necessary. Engaging students means experiencing learning through a hands-on process (Garate, 2023). What is needed is an ability to approach live problems from a variety of perspectives. Exclusively studying theory is not enough, students need to practise and gain hands-on experience too. Theory and hands-on experience complement each other and are both indispensable. As such, university-industry partnerships are good springboards for innovation, especially in a world where there is an urgent need to translate knowledge into feasible solutions to address real-world problems (Kong, 2024). The opportunity to be creative, engage in diverse projects, solve real-world problems, and gain some meaningful project experience is desirable (Shelley & Goodwin, 2018). Practice brings students closer to society, and at the same time enables them to transform abstract theoretical knowledge into the ability to understand and solve practical problems (Garate, 2023). If students can experience real case analysis in the process of learning, it will help students transform and expand theoretical knowledge, and enhance their ability to use knowledge to solve real-life problems.

Kolb's experiential learning theory

Experiential learning is a way for students to learn through hands-on experience. It is more effective than just learning from textbook materials. Solving real-life issues is also a critical employability skill for students and the learning process resonates well with Kolb's experiential learning theory. David Kolb's (1984) experiential learning theory is a comprehensive framework that explores how individuals acquire and develop new knowledge, skills, and perspectives through real-world experiences. It encourages

students' active participation, critical thinking, creativity, problem-solving, cooperation, and communication skills. There are many ways to include experiential learning in the curriculum, work-based scenarios, field trips, simulations, internships, and industry collaborative projects (Riipen, n.d.). Kolb suggests that individuals learn in a cycle through four phases; they are concrete experience, reflective observation, abstract conceptualisation, and active experimentation (Kolb, 1984; Norwich University, n. d.). Kolb's learning cycle suggests that learning is an iterative process. The cycle starts with a hands-on experience, followed by reflection on that experience. These reflections are then assimilated and distilled into abstract concepts and finally lead to new experiences (Rusconi, 2024). Learners learn best when they actively engage in each step. His model promotes a dynamic, cyclical, and engaging approach to learning that aligns well with the demands of modern higher education.

University-industry collaboration in teaching and learning

University-industry collaboration is increasingly perceived as a vehicle to promote learning, innovation, and practical impact (NTU, 2024; NUS, 2024; SUTD, 2024). An industry project is a university-industry partnership whereby students work in teams to solve real-world challenges. Students put their knowledge into practice and solve business problems relating to a specific, sizable industry project. They frame the project, review the relevant literatures, and prepare the proposal. Industry projects have mutual benefits to the companies and students involved as they help to create a learning community that develops future-ready graduates (Crawford et al., 2020; NUS, 2024). Students can sharpen critical thinking and communication skills through close team collaborations, consultations, and formal presentations. Therefore, many universities in Singapore and around the world have embedded industry projects as part of experiential learning courses into their curriculum (Lim, 2023; NUS, 2024; SUSS, n. d.). For example, in a sustainable and green capstone project at NUS Business School, students engage in experiential learning where they analyse and solve problems related to the sustainable and green finance projects provided by industry organisations (NUS, 2024).

UCD-industry partnership

In a business strategy module delivered by UCD in Singapore, students can learn not only in classrooms but also in selected companies. There are challenges and problem-solving activities for them to complete. This may also involve mind-work and collaborative learning. An industry project offers students a setting that closely simulates post-graduation work environment. It is expected that the project stimulates their logical, interpersonal, and verbal intelligence throughout their cooperation and problem-solving process. Lastly, the project is a kind of concurrent and prospective learning as they would be learning together through the real case and the knowledge from classes.

With the fast-changing work environment, it is crucial for institutions to create a unique learning experience for students; make them interested in learning and help them to become career-ready. The offering of real-life examples rather than “dry” academic assignments seems to work. UCD Singapore campus has started to embrace teaching pedagogy that instills learning of twenty-first century competencies to prepare their students to be future-ready during and after the pandemic. Since then, we have worked with multiple company sponsors, to name a few, a leading event management company on transiting from physical to virtual meetings, small-medium sized enterprises in India on promoting the use of bamboo-based packaging, and an online food delivery platform provider on building a sustainable multi-sided marketplace.

A real-life case study

In the following pages, we will look at one effort using an industry collaborative project at UCD Singapore Campus. UCD has offered degree programmes in Singapore for over 20 years in partnership with Kaplan Higher Education Academy. With approximately 3,000 students and three full-time UCD staff members dedicated to the Singapore campus, these programmes demonstrate UCD’s strong global engagement in higher education and the business environment (UCD Michael Smurfit Graduate Business, 2024). UCD offers various pathways in its undergraduate programmes. For example, Business Analytics, FinTech, Digital Business, and Management (UCD Michael Smurfit Graduate Business, 2024).

Project requirements and objectives

In our Singapore campus, we started the first institutionalised industry-university partnership in a common core module, Corporate and Competitive Strategy, back in 2021. The industry project accounts for 40% of the final grade. The industry project offers final-year undergraduate students an opportunity to solve real-world challenges. Working in teams of three to five students, these senior undergraduate students learn to apply the theories, concepts, and frameworks that they have learnt to investigate a business challenge faced by an external party (a company). The case study featured in this paper was a project on building a sustainable multi-sided marketplace we partnered with foodpanda, one of the leaders in the online food delivery industry. Students played the role of junior consultants to understand the value propositions of online food delivery platforms and the interests of various stakeholders (particularly customers, riders, and restaurants), and finally presented their project findings to industry partners. Approximately 200 undergraduate students in the strategy class went through the project from inception to completion in less than two months.

The project aims to give students a holistic and integrative consulting experience that requires an extensive range of skills and knowledge as follows:

- Identify real-world needs and transform them into business strategies;
- Collect first-hand data to understand challenges and expectations faced by different stakeholders (see Appendix 1 for questions designed);
- Appraise the key findings of the project;
- Apply strategy concepts and frameworks and evaluate alternatives;
- Recommend solutions in a video and a poster presentation;
- Demonstrate creativity, teamwork, and problem-solving skills to resolve the challenges in the entire process (see illustrative quotes in Table 2).

Figure 1 illustrates the four components of Kolb’s model (1984) that relate to our UCD-industry project. Illustrative quotes of students’ reflections are shown in Table 1.

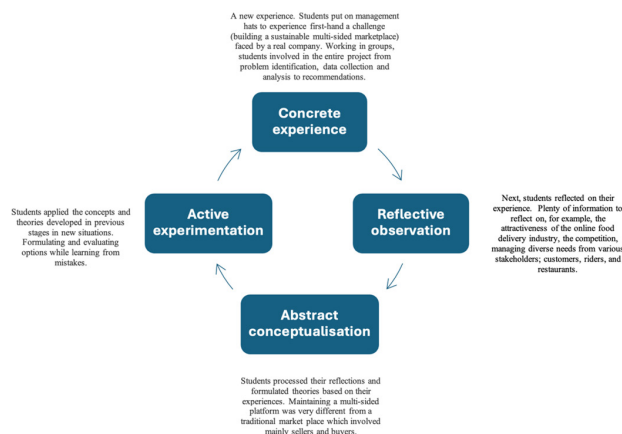


Figure 1: Kolb’s learning cycle in an industry project.

Real benefits

In addition to Kolb’s experiential learning cycle, students also benefitted professionally and personally. See examples below:

Table 1: Illustrative quotes of students' reflections of an experiential learning experience.

Kolb's learning cycle	Illustrative quotes from students' reflections (reactions to the project)
Concrete experience (Doing)	<p>Student A: In this report, I was in-charge of the PESTLE analysis and 5 Forces analysis, presentation videos editing and the final person to consolidate the group essay. So, through this report or in fact this module, I have learned that what exactly a company will consider and make decisions form those strategies.</p> <p>Student B: Through this module.... I gained a comprehensive understanding of what is required to effectively manage business strategy and the challenges that managers must face and learned about some of the strategic managers' decisions.</p>
Reflective observation (Observing)	<p>Student C: Research online, read books, filter information from Korean newspapers about the food delivery industry, from which to draw information to introduce the industry and make a PESTEL table. Through the process of teamwork, I learned how to teamwork as well as better understand the Korean market in terms of online work and fast service.</p>
Abstract conceptualisation (Thinking)	<p>Student D: I thought of adopting a low-cost supplier strategy to solve the problem of high pricing in the catering industry currently served by foodpanda, minimising foodpanda's online food delivery costs, attracting consumers with the advantage of lower delivery costs, and expanding foodpanda at the same time. Expand the scope of business between foodpanda and restaurants, grocery stores, and office companies.</p> <p>Student E: I learned a lot of things from the study. It helps me to understand penetration strategies to secure a competitive market position.</p>
Active experimentation (Planning)	<p>Student B: Through this module, I was able to apply a range of techniques learned in class to analyse a company's internal and external environment to help develop strategy, implement it, and assess whether it is still appropriate in light of changes in the organisational environment. I can also present independent data analysis of current strategies of listed companies using course concepts and tools and provide recommendations for the organisation's future strategic direction based on this analysis.</p> <p>Student F: I am assigned to interview the customers and rides, drawing out the SGM [strategic group map], coming out with action recommendations for key issue 1. To come up with action recommendations, I challenged myself to think outside the box. This project has given me some valuable insight that will be useful in the future.</p>

Table 2: Illustrative quotes of students' reflections on skills development opportunities.

<p>Student G: The group has shown great teamwork during the whole assignment though we procrastinated a bit. But at the end the way, we made it through together and finished all of our work.</p> <p>Student F: In addition, I gained a fuller understanding of the importance of managing project time and accurate communication between team members during group work. I think these experiences will help me in my future work with multiple people.</p> <p>Student H: This assignment has been very fun and hard. But we did our best to finish it even if the deadline is quite cramped.</p> <p>Student I: In this group assignment, I learned 1) poster making, that is, learning PS and AI software for page typesetting and layout.</p>
--

Based on discussions with participating students after these projects, we see that this project has been a memorable experience for them. It is also expected that students' employability could be improved after the project. Students can master new skills, such as project management, media production, and editing.

For the schools or educators, this project shows that we can innovate in terms of course design and delivery in a way that is more effective than traditional methods. Also, university-industry projects enhance the image and reputation of the school (Lutchen, 2024). Since the first-hand experience is more profound, students can easily recall their own experiences. They can remember what they learned in the project and the module.

The personal experience of these students enabled the school to help students in career planning. The real-life experiences can help educators make suggestions more effectively so that the school can fully play the role of an intermediary or bridge, formulate appropriate plans and activities, share seminars, and meet student needs.

Industry collaborative projects let students take on actual projects from businesses. This provides a dual benefit in which businesses get fresh perspectives, and students gain hands-on experience. This is a win-win collaboration. As Lutchen (2024) remarks, "Businesses benefit from a pipeline of well-prepared personnel, while higher ed institutions gain enviable reputations for providing them" (p. 6). There are tangible benefits for industry partners. In particular, they can leverage on our Gen Z students who are very diverse in socio-cultural backgrounds to investigate their business challenges and explore fresh perspectives through out-of-the-box thinking. Our results suggest that industry projects are worth trying and that such engaging activities can facilitate learning and skills development. See industry partners' feedback on their perceptions of the university-industry partnership below:

Mr. Stephen Ho, Group Chief Operating Officer, SkyLab Holding, comments,

The teams have categorically done the initial analysis – be it from an industry standpoint, the interviews, the riders, the F&B operators, or even the customers. Then, through all this analysis, it is very important for them to come up concrete recommendations... apart from all the generic trends out there, specific recommendations that companies themselves can take away with. More importantly, it is to help them build a competitive advantage in the market (Kaplan Higher Education Academy, 2022a).

He also says, "It has been a very enjoyable process. Some of your [students'] ideas were very interesting, very refreshing and you would actually suggest things that I might not necessarily have thought of myself."

Ms. Arunika Prakash, Senior Analyst, Vendor performance and experience, foodpanda (APAC) remarks,

It is a very good concept because it emphasises on application-based learning. Students get to apply academic knowledge that they have to a real, ongoing business challenge. Hence, when they start to work, they understand very well what is needed to navigate through a business problem.... This project builds the skills and competencies that students would require in a real working world (Kaplan Higher Education Academy, 2022b).

Ms. Giet Koh, Regional head, Vendor performance and experience, foodpanda (APAC) compliments,

Many of the students' work and ideas are already work-in-progress that the company has been embarking on and even in across industry when we look at other food delivery competition companies apart from ours they are also embarking on such initiative. I see great potential in many of the ideas that the students have put forth (Kaplan Higher Education Academy, 2022b).

Challenges of university-industry partnerships

A coin has two sides. This particular case also shows that industry projects are not easy to design or carry out. One key challenge, from our personal experience, is that experiential learning, for example, industry collaborative projects require effective and smooth collaboration with multiple stakeholders (i.e. industry partners) working together to create, refine, implement, and assess a project (Rybnicek & Königsgruber, 2019). In one project, it took us and the industry partners more than five meetings to agree on the final problem statement.

While there are many ways to include experiential learning in the curriculum, implementation is where many institutions hit a roadblock (Riipen, n. d.). This is often because it takes time to find organisations to work with. The external party often has to adjust to the university's time schedules and presentation formats, and vice versa.

As mentioned previously, the learning experience will not work without students' engagement. Getting students engaged from the beginning and having them take the initiative is always challenging (Garate, 2023). Hands-on experience may mean more work for students as it requires several learning stages, from concrete experience and observation to active experimentation. Therefore, we must also be able to select a context, a problem, or a concrete reality that is rich in stimuli to motivate students to participate and learn from it (Garate, 2023).

The workload of the professors also increases as they are the main contact points for the entire project. The role of educators in this approach would be like a resource provider and facilitator. In our case, in addition to in-class mentoring, we also offered two one-hour open drop-in sessions to students. On the other hand, they take care of the students and give guidance where appropriate, they also look for ways to stimulate them to think more deeply or seek better answers. This is perhaps one reason why some faculty often resist change. Deans and other academic officers may be reluctant to fix what they do not see as broken (Lutchen, 2024). There are other restraining factors, for example, professors' lack of coaching and mentoring skills and sometimes their ignorance about action learning (Sutton & Jorge, 2020).

Conclusion

With the increasing demands of modern higher education, universities need to produce students who can adapt and deal with complex problems creatively. This calls for a more learner-centric and skills-centric pedagogy. At University College Dublin, we value innovation in teaching and unique learning experiences for students. We believe these can be achieved through the delivery of an experiential learning experience, in our case, an industry collaborative project. Experiential learning is learning through real-life experience. It gives students the ability to understand the implications of principles and theories learned in the classroom through lived experiences. Incorporating projects that mirror real-world experiences can offer additional depth to our curriculum, and at the same time, it can help develop students' employability skills, since our students are required to work on the entire project in a short period of time and in teams. The paper presents a live case study for such a learning experience. The case study demonstrates how educators can infuse Kolb's learning stages through industry collaborative projects. The paper also presents key challenges for their implementation.

Acknowledgements

Our heartfelt thanks go to Edmund Cheung and Vy Nguyen, who helped us with this article. We are also grateful to the reviewers for their valuable comments and suggestions.

References

- Business Times*. (2022). Foreign enrolment in Singapore private schools picks up as borders reopen. *The Business Times*. <https://www.businesstimes.com.sg/singapore/economy-policy/foreign-enrolment-singapore-private-schools-picks-borders-reopen>
- Canty, A. J., Chase, J., Hingston, M., Greenwood, M., Mainsbridge, C. P., & Skalicky, J. (2020). Addressing student attrition within higher education online programs through a collaborative community of practice. *Journal of Applied Learning and Teaching*, 3(1), 140-152. <https://doi.org/10.37074/jalt.2020.3.s1.3>
- Chamorro-Premuzic, T., & Frankiewicz, B. (2019) 6 reasons why higher education needs to be disrupted. *Harvard Business Review*, 97(3). <https://hbr.org/2019/11/6-reasons-why-higher-education-needs-to-be-disrupted>.
- Crawford, J., Baker, W., & Parsell, M. (2020). Learning from Tasmania: Designing a distinctive student learning experience. *Journal of Applied Learning and Teaching*, 3(S1), 7-11. <https://doi.org/10.37074/jalt.2020.3.s1.2>
- Freire, P. (1970). *Pedagogy of the oppressed*. Penguin Random House.
- Garate, M. (2023). Beyond the classroom: Why experiential learning is crucial in today's world. *Times Higher Education*. <https://www.timeshighereducation.com/campus/beyond->

- classroom-why-experiential-learning-crucial-todays-world
- Gioia, M. (2019). *Educare, educere, explorare*. <https://www.self-directed.org/tp/educare-educere-explorare/>
- Go, A. (2022). *Singapore private education sector need stronger sectoral network*. LinkedIn. <https://www.linkedin.com/pulse/singapore-private-education-sector-need-stronger-sectoral-alan-go/>
- Gono, S., & de Moraes, A. J. (2023). Student appraisals of collaborative team teaching: A quest for student engagement. *Journal of Applied Learning and Teaching*, 6(1), 222-233. <https://doi.org/10.37074/jalt.2023.6.1.26>
- Gupta, R., Lawrence, A., & Takabayashi, M. (2021). *The 21st-century curriculum and the future of skills-based education*. Coursera. <https://www.timeshighereducation.com/hub/coursera/p/21st-century-curriculum-and-future-skills-based-education>.
- Kang, M. (2020). *Covid-19 has surfaced these skill gaps: Now we need to fill them*. People Matters. <https://www.britishcouncil.sg/blog/covid-19-skill-gaps>
- Kaplan. (2023). *Our university partners: Academic partnerships that connect dreams to Degrees*. Kaplan Higher Education Academy. <https://www.kaplan.com.sg/why-kaplan-university-partners>
- Kaplan Higher Education Academy. (2022a). *Kaplan industry project with University College Dublin – Our project sponsor*. <https://www.facebook.com/watch/?v=5491099050980269>.
- Kaplan Higher Education Academy. (2022b). *Kaplan industry project with University College Dublin: Our expert panelists*. https://www.google.com/search?q=Geat+foodpanda+Kaplan&rlz=1C5CHFA_enSG1114GB1115&oq=Geat+foodpanda+Kaplan&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIHCAEQIRigATIHCAIQIRigATIHCAQIRigAdIBCTEwODg5ajBqOagCALACAQ&sourceid=chrome&ie=UTF-8#fpstate=ive&vld=cid:-860d4f71,vid:FQcPG3jxzl,wt:0
- Kemp, N. (2020). University students' perceived effort and learning in face-to-face and online classes. *Journal of Applied Learning and Teaching*, 3(S1), 69-77. <https://doi.org/10.37074/jalt.2020.3.s1.14>
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.
- Kong, L. (2024). Time to rethink higher education in Singapore and set our own agenda. *The Straits Times*. <https://www.straitstimes.com/opinion/time-to-rethink-higher-education-in-singapore-and-set-our-own-agenda>.
- Kwan, J., (2022). Academic burnout, resilience level, and campus connectedness among undergraduate students during the Covid-19 pandemic: Evidence from Singapore. *Journal of Applied Learning and Teaching*, 5(S1), 52-63. <https://doi.org/10.37074/jalt.2022.5.s1.7>
- Kwek, D., Ho, J., & Wong, H. M. (2023). *Singapore's educational reforms toward holistic outcomes (un)intended consequences of policy layering*. Center for Universal Education at Brookings. https://www.brookings.edu/wp-content/uploads/2023/03/Brief_Singapores-educational-reforms-toward-holistic-outcomes_FINAL.pdf.
- Lau, D. (2023). *Employers and HR experts say academic qualifications shouldn't be totally done away with, as survey shows changing attitudes*. <https://www.todayonline.com/singapore/skills-qualifications-degree-jobs-hiring-2173161>
- Lim, K. (2023). The big read in short: Are S'pore's universities nimble enough to stay relevant? *Today*. <https://www.todayonline.com/big-read/big-read-short-are-spores-universities-nimble-enough-stay-relevant-1844401>
- Lutchen, K. R. (2024). *A new model for university-industry partnerships*. Harvard Business Publishing. <https://hbsp.harvard.edu/inspiring-minds/a-new-model-for-university-industry-partnerships>.
- Nanyang Technological University (NTU). (2024). *Industry research collaborations*. <https://www.ntu.edu.sg/research/industry-research-collaborations>.
- National Center on Education and the Economy (NCEE). (2016) *Empowered educators: How high-performing systems shape teaching quality around the world. Country brief Singapore: A teaching model for the 21st century*. <https://ncee.org/wp-content/uploads/2017/02/SingaporeCountryBrief.pdf>.
- Ng, W. K. (2022). Definition of success in Singapore education system must change: Chan Chun Sing. *The Straits Times*. <https://www.straitstimes.com/singapore/parenting-education/definition-of-success-in-singapore-education-system-must-change-chan-chun-sing>.
- Norwich University. (n. d.) *The 4 components of the experiential learning cycle*. <https://online.norwich.edu/online/about/resource-library/4-components-experiential-learning-cycle>
- NUS. (2024). *BMG5302 Sustainable and green capstone project B*. <https://nusmods.com/courses/BMG5302/sustainable-and-green-capstone-project-b>
- Riipen. (n. d.). *From experience to expertise: Decoding Kolb's experiential learning theory*. <https://www.riipen.com/blog/experiential-learning-theory>
- Rusconi, G. (2024). *Learning Kolb's learning cycle by David Kolb explained*. <https://cloudassess.com/blog/kolb-learning-cycle/#:~:text=The%20cycle%20starts%20with%20a,tested%2C%20leading%20to%20new%20experiences>
- Rybnicek, R., & Königsgruber, R. (2019). *What makes industry-university collaboration succeed? A systematic review of the literature*. ResearchGate. from https://www.researchgate.net/publication/327618582_What_makes_industry-university_collaboration_succeed_A_systematic_review_of_the_literature

Salinas-Navarro, D. E., Da Silva-Ovando, A. C., & Palma-Mendoza, J. A. (2024). Experiential learning labs for the post-COVID-19 pandemic era. *Education Sciences*, 14(7), 707. <https://doi.org/10.3390/educsci14070707>.

Sam, C. Y. (2022). Post-COVID-19 and higher education. *Journal of Applied Learning and Teaching*, 5(1), 156-164. <https://doi.org/10.37074/jalt.2022.5.1.21>

Serdyukov, P. (2017, April 3). Innovation in education: What works, what doesn't, and what to do about it? *Journal of Research in Innovative Teaching & Learning*. <https://www.emerald.com/insight/content/doi/10.1108/JRIT-10-2016-0007/full/html#sec007>

Shelley, A., & Goodwin, D. (2018). Optimising learning outcomes through social co-creation of new knowledge in real-life client challenges. *Journal of Applied Learning and Teaching*, 1(2), 26-37. <https://doi.org/10.37074/jalt.2018.1.2.4>

SIT. (2023). *Skills-based careers: How competency-based education is changing the learning landscape*. <https://www.singaporetech.edu.sg/news/skills-based-careers-how-competency-based-changing-learning-landscape>

Spurling, T. (2017). *Singapore's public and private providers strive to stay on top*. *The PIE News*. <https://thepienews.com/analysis/singapore-education-international-students/>

Stafford, V., (2020). EdTech review: Teaching through Zoom – what we've learned as new online educators. *Journal of Applied Learning and Teaching*, 3(2), 150-153. <https://doi.org/10.37074/jalt.2020.3.2.14>

SUSS. (n. d.) *Industry project in event management (EMT388)*. <https://www.suss.edu.sg/courses/detail/emt388>

SUTD. (2024). *Capstone: A university-industry partnership*. <https://www.sutd.edu.sg/Student-Development/Capstone-Programme/For-Industry-Partners>.

Sutton, M. J. D., & Jorge, C. F. B. (2020). Potential for radical change in higher education learning spaces after the pandemic. *Journal of Applied Learning and Teaching*, 3(1), 124-128. <https://doi.org/10.37074/jalt.2020.3.1.20>

Tan, S., Rudolph, J., Crawford, J., & Butler-Henderson, K. (2022). Emergency remote teaching or andragogical innovation? Higher education in Singapore during the COVID-19 pandemic. *Journal of Applied Learning and Teaching*, 5(S1), 64-80. <https://doi.org/10.37074/jalt.2022.5.s1.8>

Teng, A. (2024). Focus on 5 key areas to keep education system relevant in uncertain world: Chan Chun Sing. *The Straits Times*. <https://www.straitstimes.com/singapore/parenting-education/focus-on-5-key-areas-to-keep->

education-system-relevant-in-uncertain-world-chan-chun-sing.

Thian, S. Y. (2024). *Singapore employers need to hire on skills, beyond degrees, to address the talent gap – HR panel*. <https://govinsider.asia/intl-en/article/singapore-employers-need-to-hire-on-skills-beyond-degrees-to-address-the-talent-gap-hr-panel>.

UCD Michael Smurfit Graduate Business School. (2024). *Singapore campus*. <https://www.smurfitschool.ie/aboutus/globalcampus/singapore/>

Volansky, K. J. (2020). What are best practices to teach "hands-on" skills in a blended environment? *Journal of Applied Learning and Teaching*, 3(1), 80-89. <https://doi.org/10.37074/jalt.2020.3.1.6>.

World Economic Forum. (2019). *The 4 biggest challenges to our higher education model – and what to do about them*. <https://www.weforum.org/agenda/2019/12/fourth-industrial-revolution-higher-education-challenges/>

Yeo, N. (2024). Private university degrees 'less prestigious' but provide faster route to working world, say graduates. *Today*. from <https://www.todayonline.com/features/private-university-degrees-less-prestigious-provide-faster-route-working-world-say-graduates-2415311>

Appendix

Appendix 1: Illustrative examples of interview questions designed by students.

Customers	Riders	Vendors
How often do you use online food delivery?	Why do you choose to work together with the online food delivery platforms?	Have you partnered with any online food delivery platforms? Why?
How was the food quality?	From 1 to 10, how would you rate these platforms based on your experience with the two platforms (Gojek and Grab)?	Please rate your experience with the one you've worked with the longest.
Was the delivery time fast enough?	Can you describe one or two of your latest experience in details specifically?	Previously you mentioned that your restaurant is working with Grab, foodpanda and Deliveroo. Among these 3 online delivery platforms, is there any platform that you prefer over other and maybe you can share with us why?
The type of meal you typically order from delivery apps?	What do you think can be further improved or fixed by Gojek or other online food delivery platforms?	Name at least one improvement you want to see.
Which platforms have you used? Please rate your experience with the most recent food delivery service. From 1-10, 1 is very poor, 10 is excellent.		
Please tell us how your overall experience was, describe one or two recent order experiences with specific details.		
Name at least one improvement you want to see.		

Copyright: © 2025. Cubie L. L. Lau and Shawn Wong. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.