ASCILITE 2023

People, Partnerships and Pedagogies

Unlocking Student Success: Harnessing the Power of Simulation-Based Learning in Business Education

Sandra Barker and Audrea Warner

University of South Australia, University of Auckland

This paper draws upon the authors' extensive experience in designing and delivering simulation-based courses in both Australia and New Zealand. Through their first-hand experience, they have found that simulation-based courses offer distinct advantages compared to traditional pedagogical approaches. Participants in these courses exhibit enhanced learning and retention due to their active engagement and sense of ownership in the learning process. By adopting a "hands-on" approach, the majority of course time is dedicated to experiential learning and discovery rather than passive listening (Garris, Ahlers & Driskell, 2002).

The purpose of this article is to present and elaborate on how simulations can be used in business education along with insights the authors have gained over the years. In most business simulations, learners are immersed in the role of managing a firm within a competitive environment(s), engage in competition with other firms operating in the same industry, and strive to effectively produce, market goods, and optimize resource management for sustainable growth. Throughout the process of completing the simulation students have noted that they not only expand their business knowledge but also improve their employability skills, particularly teamwork, problem solving, communication and critical analysis. This paper also reflects on the relationships built throughout the simulation course.

Keywords: business simulation, relationships, teamwork, employability skills.

Introduction

Many researchers such as Cadotte (2016), argue that while business schools traditionally emphasize imparting knowledge through lectures, textbooks, exams, and other conventional pedagogical methods, it is crucial to recognize that knowledge alone does not equate to skill. According to Mill (2007), there is a shared belief among educators and practitioners that business education falls short in cultivating essential management competencies necessary for the contemporary business landscape of the 21st century. Furthermore, Neubaum, Pagell, Drexler, McKee-Ryan, and Larson (2009) highlight concerns regarding the employability of graduates from business schools. Pfeffer and Fong (2002, p. 85) observed that "students learn to talk about business, but it is not clear they learn business".

What is a business simulation?

According to Salas, Wildman, and Piccalo (2009, p. 560), business simulations encompass artificial or synthetic environments designed to replicate and manage individuals' or teams' experiences with real-world situations. These simulations facilitate the active construction of meaning and knowledge by employing pedagogies such as experiential, discovery, and constructivist learning (Levant, Coulmont & Sandu, 2016, p. 371). In the following section, we will explore the reasons for using business simulations. These range from experiential learning, potential connection to real world application, providing a risk-free environment, opportunities for collaboration, teamwork, decision making skills, immediate feedback/reflection and the potential to apply business knowledge.

In the early 2000s, a significant paradigm shift was observed in the field of education, specifically in business education. Whetten (2007) noted that there has been a transition from a teaching-focused approach to a learning-focused approach. This shift emphasizes the value of experiential learning that focuses on active engagement and direct experience as the foundation for knowledge acquisition and skill development. It emphasizes the importance of hands-on, immersive experiences that allow learners to engage with real-world scenarios, problems, or simulations. Through these experiences, learners actively construct meaning, reflect on their actions, and extract knowledge and understanding from their direct engagement. An illustrative example is Kolb's experiential learning theory, which is rooted in constructivism.

According to Kolb (1984), this theory posits that knowledge emerges from the process of actively engaging with and transforming experiences. Thus, to optimize learning, each phase of Kolb's learning cycle must be experienced. The cycle comprises four phases: (a) concrete experience, where the learner actively participates in an experience like a simulation, (b) reflection on the experience, (c) abstract conceptualization, where the learner contemplates thoughts and reflections to discern the significance of the learning experience and identify ways to enhance future outcomes, and (d) active experimentation, where the learner applies the acquired knowledge to guide future practice (Poore, Cullen, & Schaar, 2014).

Simulations serve as a means of replicating real-world business scenarios, providing students with a comprehensive understanding of the intricacies and difficulties involved in managing a business. They offer opportunities to explore various business functions, including marketing, finance, operations, and strategic planning, while showcasing the interconnectedness of different facets of business operations.
According to Zulfiqar et al. (2019), business simulation games play a vital role as accurate representations of market operations within a virtual and risk-free environment. These games contribute to the development of students' professional skills and decision-making abilities as they navigate through the simulated environment and make choices based on the given circumstances.

Through simulations, students are encouraged to analyse their surroundings and available options, fostering the enhancement of their decision-making skills in a practical setting. By engaging with business simulations, students gain valuable experience and knowledge that can be applied to real-world business challenges. Collaboration and teamwork are key aspects of business simulations, as they are specifically designed to promote group participation. Through these simulations, students engage in cooperative efforts to analyse information, make decisions, and work towards shared objectives. This fosters the development of effective communication, task delegation, and the ability to leverage diverse perspectives in problem-solving, all of which contribute to driving business success.

Moreover, online simulations have been found to enhance not only teamwork but also leadership, conflict management, negotiation, decision-making, and communication skills, as highlighted by Lohman et al. (2019). This study, supported by the findings of Barker & Davy   (2019), indicates that students overwhelmingly perceive the teamwork component as instrumental in enhancing their learning and problem-solving capabilities. Furthermore, the simulations provide an authentic learning experience, further solidifying their value in the educational context (Lohman et al., 2019).

Simulations play a vital role in honing students' decision-making skills by presenting them with scenarios that require strategic and informed choices within time and resource constraints. Through simulations, students learn to analyse data, evaluate alternatives, weigh trade-offs, and ultimately make effective decisions. This process enhances their ability to think critically and solve complex business problems with confidence. Research conducted by Bell and Loon (2015) indicates that simulation games contribute to boosting students' technical and critical thinking skills by bridging the gap between theoretical and practical knowledge. This integration leads to more productive, valuable, and enjoyable outcomes in student learning. Moreover, the inclusion of business simulation games alongside traditional teaching approaches can yield even more fruitful results (Zulfiqar et al., 2019).

Simulations offer the advantage of immediate feedback, allowing students to receive timely evaluations of their decisions and performance. This real-time feedback empowers students to assess the outcomes of their choices, facilitating reflection and analysis. By engaging in this process, students gain a deeper understanding of business concepts, strategies, and the resulting outcomes. According to Evans and Kerridge (2021), business simulations enable students to gain practical experience and develop skills that are highly valued by employers. Additionally, the simulations promote collaborative work within self-managing teams, further enhancing students' ability to work effectively in a team setting. Furthermore, Schoemaker et al. (2013), as cited by Evans and Kerridge (2021), emphasize that successful strategic leaders must simultaneously learn and apply six key skills: anticipate, challenge, interpret, decide, align, and learn. The inclusion of simulations within the learning process facilitates the development and application of these essential skills, contributing to students' growth as strategic leaders.

Participating in a simulation enables students to effectively connect theoretical knowledge with practical application, closing the gap between theory and practice. By immersing themselves in realistic business scenarios, students have the opportunity to apply the knowledge they have acquired in the classroom. This

applied learning approach not only deepens their understanding of business concepts but also enhances their ability to transfer that knowledge to real-world situations. The cyclical nature of the simulation where students make decisions for a period of time and then those decisions are "tested" in the running of the period, implements Kolb's (1984) learning cycle where students are then given time to reflect on the outcome of the decisions made, contemplate the results and then experiment with potential decisions for the next cycle of the simulation.

According to Calabor, More, and Moya (2019, 51), the use of simulation games (SGs) facilitates the creation of simulated business ventures. In these ventures, students make decisions related to production, finance, investments, marketing, and strategy as part of the same team. This comprehensive experience helps undergraduate students simulate the complexities of the "real world" and provides them with a successful teaching and learning experience.

Overall, business simulations offer a dynamic and engaging learning experience that develops students' business acumen, critical thinking, decision-making, collaboration, and problem-solving skills, preparing them for the challenges they may encounter in their future careers.

Building Relationships

Anderson (2003) identified key interactions in educational settings as including student-student, student-teacher, student-content, teacher-teacher and content-content. These relationships need to be enhanced to ensure maximum learning benefits to the students. Woo and Reeves (2007, cited in Kulkarni & Sivaraman 2022, 6) 'state that whilst students are engaged in a learning task along with peers and experts, they go through a process of generating ideas, working on tasks, sharing perspectives, and synthesizing their thoughts'. In a traditional lecture format the level of the student-student relationship is quite low whilst the student-content relationship has been identified as low to medium (Anderson 2003). In the lecture the student-teacher relationship is medium at best with the teacher taking the lead. The use of simulations as a teaching method provides opportunity for significant numbers of student-student, student-content and student-teacher interactions created through the nature of teamwork and collaboration, teacher (facilitator/expert) oversight and guidance, and student engagement with previously studied theory from other business courses.

Our Approach

The two universities have approached the inclusion of a business simulation course in similar ways. Both identified the need and undertook an extensive search for the right simulation. The courses were then developed around the simulation and do not engage the student in any new theory. The simulations chosen both provided the opportunities for students to use the Kolb (1984) learning cycle approach by testing potential decisions, reflecting on the decisions made in each period and then applying new knowledge to decisions in upcoming periods. A formative practice session is also available in both chosen simulations thus giving both instructors and students the chance to do, reflect, and learn at each stage of the course. Refresher "lectures" and readings are offered to students who may have forgotten some of the theory from previous courses or who have studied a different discipline and may not have encountered the theory in their specialisation.

The inclusion of simulations in the capstone course nurtures critical and strategic thinking among students as they carefully evaluate market dynamics, competitive landscape, and organizational capabilities. This approach cultivates a comprehensive understanding of the importance of aligning business strategies with organizational goals, fostering a big-picture perspective. Additionally, research by Thompson and Dass (2000) highlights that simulations within the capstone course effectively facilitate the teaching of analysis and strategic thinking skills. Research conducted by Adobor and Daneshfar (2006) and Kachra and Schnietz (2008) suggests that students can acquire and retain valuable lessons from simulations, regardless of their performance during the simulations. These findings indicate that the benefits of simulations extend beyond immediate performance outcomes and can have a lasting impact on students' learning and knowledge retention.

In both of the universities offerings students are in the final year of their bachelor's degree or have completed the requirements to enrol into this stage 3 course. All students would have completed, or be studying concurrently, courses in their respective specialisations. As such the purpose of the capstone course is to provide an opportunity for students to integrate and apply the knowledge and skills they have acquired throughout their business education. It allows them to connect the dots between different disciplines, such as

marketing, finance, operations, human resources, and strategy, and see how they all come together in a real-world business simulation.

University A

The extensive procurement process involved in running a pilot for the first iteration of a Business Simulation capstone course includes activities such as vendor selection, contract negotiation, and securing the necessary resources and technology for the simulation. Running a pilot allows for a trial run of the course, providing an opportunity to test its effectiveness, gather feedback from students and faculty, and make necessary adjustments before full implementation.

Every student was assigned a unique username and password to access the simulation. CESIM Global Challenge is an educational business game simulation that immerses learners in the complexities of global business operations within a dynamic and competitive environment.

In this simulation, students are part of a team entrusted with the task of reorganizing the operations of Bull Automotive Inc. The company faces uncertainties arising from the ever-changing political landscape and the challenges of predicting shifts in demand. Students are required to devise a sound marketing strategy, considering the organization's capabilities, market position, potential regulations, tariffs, market signals, and competitor strategies.

The board of directors' grants the students substantial autonomy to proceed as they deem fit, providing them with ample room for decision-making and strategy implementation. CESIM Global Challenge aims to enhance students' understanding of the complexities involved in managing a global business operation.

This is further highlighted in Kachra and Schnietz (2008) research that discovered that simulations facilitated three types of integration. The first type, theoretical integration, involves comprehending the interconnectedness of various concepts taught across different courses. The second type, applied integration, centres on understanding how these concepts influence the overall organizational performance. Lastly, practical integration occurs when students are able to combine these concepts and apply them effectively to real-world business situations—an area that current teaching approaches often struggle to address adequately.

Students were placed into teams of 5-6 students. Due to this being the first iteration of the course, specialisations ranged from Accounting/Finance, Economics, Operations & Supply Chain Management, Information Systems/Business Analytics, Management, Innovation & Entrepreneurship, International Business and Marketing. Other factors such as age, gender and ethnicity were also considered in the team formation process. The capstone course involved team-based assignments that foster collaboration and teamwork among students. As per university policy the teamwork was capped at 30% of the total coursework. Both the Board report and the pre-recorded video presentation of simulation were done as a team-based assignment. These two assignments were designed to get teams to work together, leverage each other's strengths, and overcome challenges as a team.

University B

The investigation of the inclusion of a simulation course at this university dates back to the early 2000s with funding being provided by the university to research and implement activities to encourage student engagement. A number of business simulations were trialled, and the final proposal of a single elective course based solely around the use of the simulation was presented. The business simulation Capstone, offered by Capsim based in Chicago, was seen to offer students the best opportunities to apply knowledge in their own discipline to a whole business scenario. In this simulation up to six teams of 5-6 students are formed to run a sensor manufacturing business. Decisions in the areas of research and development, production, marketing, human resources, finance and total quality management are required to be made. Teams are formed to ensure that there is a mix of business specialisation to give students the chance to apply knowledge from their discipline as well as to learn how their area impacts other areas and business disciplines within an operating organisation.

Teams are given four formative rounds of "practice" where they are competing against the other teams in the class, but no marks are awarded for performance in this area. This gives the teams a chance to test different strategies as well as continue to learn the way in which the simulation runs. The simulation is then reset to

"competition" mode where student teams compete over eight rounds with the in-built balanced scorecard and team derived success measures are used to calculate the team's performance in the simulation.

Students are finally given an opportunity to run the simulation as an individual, in a cut down version, to ensure that students have understood all of the concepts and learnings they have made as a team. The simulation runs for four rounds and is open for students to complete over a 12-hour period. Throughout this piece of assessment, the students are asked multiple choice questions based on the current standing of their company (and their opposition) in the simulation. These questions allow students to show their understanding of the different financial, human resources, production, and strategy areas of the simulation and how they apply in business. The final question asks students to provide a summary of what they did over the four years of this simulation, how their company performed, what they would do differently and what they would do for the next four years. This final assessment assists in the moderation of the grade they receive as a team and clearly identifies any student who has not participated in the team running of the simulation.

Assessment structure

Assessments stand as integral pillars upon which the educational experience is constructed. Boud & Falchikov (2007) in their research note that assessment design has implications on how university students approach their learning, for many of them assessment drives learning. Beyond the mere measurement of knowledge and skills, assessments play a profound role in shaping the dynamics within the classroom, fostering connections between students and educators, and nurturing collaborative bonds among peers. In this section, we delve into the assessment structures of two distinct courses, offered at University A and University B, aiming to shed light on how these assessments are designed not only to evaluate proficiency but also to cultivate relationships.

Table 1 serves as a comprehensive guide, outlining the assessment components of these courses, including both team-based and individual assessments. It is important to recognize that both institutions adopt a multilevel assessment approach, a deliberate choice that empowers students to harness the feedback garnered from initial assessments to enhance their performance across various dimensions of the simulation and skill development.

As we dissect the assessment structures of these courses, it unveils how assessments function as a catalyst for relationship-building within the academic sphere. University A and University B, while distinct in their approaches, share a common thread in their recognition of assessments as tools not merely for evaluation but for the cultivation of meaningful interactions.

Table 1: Summary of Assessment items and weightings

Course	Assessment structure	Name and Weighting	Individual/Team
Business Simulation Capstone Course (University A)	Assessment 1 -Part A	Slide Deck (15%)	Individual
	Assessment 1- Part B	Narrative (15%)	Individual
	Assessment 2- Part A	Board Report (20%)	Team
	Assessment 2- Part B	Teamwork skills and Peer Evaluation (20%)	Individual
	Assessment 3- Part A	Pre-recorded video presentation of simulation brief (10%)	Team
	Assessment 3 Part B	In-person group interview with a facilitator (15%)	Individual
		Simulation Performance (5%)	
Business Decision Making Simulation (University B)	Assessment 1 Part A	Simulation Rehearsal (5%)	Individual
	Assessment 1 Part B	Team Charter, Vision and Strategy (5%)	Individual
	Assessment 1 Part C	Competitor Analysis (10%)	Individual
	Assessment 2 Part A	Success Measures (15%)	Team
	Assessment 2 Part B	Balanced Scorecard (15%)	Team
	Assessment 2 Part C	Video Presentation (10%)	Team
	Assessment 2 Part D	Individual Reflection (10%)	Individual
	Assessment 3	Individual Simulation Assessment (30%)	Individual

Table 1 above outlines the assessment structure of the two courses showing both team and individual based assessments. Both universities employ a multilevel assessment approach which allows students to build on feedback received from initial assessments as well as to exhibit proficiency across multiple facets of the

simulation and their skill development.

This table shows distinct differences between the two courses. Firstly, University A offering is assessed more on the individual performance through scaffolded assessment tasks that do not relate directly to the simulation performance whereas University B places a higher weighting on the student and team performance in the simulation.

Many business educators are adopting authentic assessment tasks (Biggs & Tang, 2011). These tasks are designed to promote the cultivation of higher-order thinking skills and transferable abilities that hold significant relevance in the professional workplace (Succi & Canovi, 2019; McMurray, Dutton, McQuaid & Richard, 2016). Through this analysis, it is evident that both institutions nurture the relationships between students, their peers, and their educators in the context of dynamic business simulations.

Relationship development

The use of business simulations fosters the development of relationships among students, as well as between students and staff members. By engaging in simulations, students collaborate, communicate, and work together towards common goals. This collaborative environment cultivates relationships, enabling students to connect, share ideas, and learn from one another. Moreover, simulations encourage interactions between staff members and students, promoting a supportive learning community. Through their involvement in simulations, staff members can provide guidance, feedback, and mentorship, establishing meaningful relationships with students. These relationships formed within the simulation environment extend beyond individual courses, creating a sense of community and collaboration across various academic experiences.

What relationships have been developed?

Student to student
One of the key relationships across both the simulation courses was the student-to-student relationships. Simulations promote various student-to-student relationships that contribute to their development. Several studies have demonstrated the effectiveness of simulations in developing essential skills among students. These skills include creativity, problem solving, effective communication and critical thinking (Konak, 2019). Another key element of student-to-student relationships was the opportunities to both give, receive, and reflect on constructive feedback, students found this encouraged continuous learning and growth. This enhanced their preparedness for real-world business environments.

Student to staff
In the context of using a simulation, an important relationship exists between staff and students. Business simulation-based learning provides a practical approach that trains students to apply theoretical knowledge, make informed judgments, and make decisions within a realistic environment mirroring real-world scenarios (Vos & Brennan, 2010). Debriefing sessions following the simulation foster critical thinking by engaging students in interpretation, analysis, explanation, and drawing inferences. These sessions serve as guided reflections, offering opportunities for students to discuss their performance with others, learn from their experiences, and adapt their actions or behaviour accordingly (Fanning & Gaba, 2007). The facilitator-participant relationship involves staff members acting as guides, mentors, and coaches, providing instructions, support, personalized coaching, feedback, and sharing industry knowledge and expertise. Collaboration and engagement between students and staff further promote active learning and the exchange of ideas, creating a supportive and interactive learning environment.

Staff to staff – across universities
The use of a business simulation not only facilitates networking and professional connections among staff members within a university but also extends to collaboration and knowledge sharing between staff members from different universities. This collaboration fosters the exchange of ideas, resources, and support, creating opportunities for networking and the development of trusted colleagues who can serve as sounding boards (Porter & Woo, 2015). These connections go beyond the course itself, potentially leading to future collaborations, research endeavours, curriculum development, and other educational initiatives, further strengthening professional networks within the academic community.

What have we achieved?

Great student feedback. Those who normally would not engage said that they enjoyed the experience. Not just providing suggestions or a proposal to a company but implementing decisions and then reviewing and adapting strategy to the outcome. Over the past 13 years of University B's simulation course the student feedback has been consistent whilst the first offering at University A has identified similar positive feedback. Student comments about their learning were identified through course evaluation feedback for University A and the final student reflections for University B. Approximately 36% of students responded to the course evaluations for University A whilst 100% of students enrolled completed the final reflection for University B. The following student comments were randomly selected across the different cohorts to show the nature of the learning, the student experience and the relationships developed.   :

> Through this course I was able to see how decisions that I make and information that I provide in the accounting and finance sector may influence the decisions made in other sectors of a business or company. This course **helped me understand how a decision made in one area of a business can have a significant impact on all sectors**. This highlights the importance of all sectors in a business needing to be operating effectively to achieve the best results for the entire business as a whole as one area lagging can significantly hinder the overall performance. This course has encouraged me to ensure that when I begin working in accounting, I make sure that I do everything as best as I can as I now realize the importance of the information that I will be providing. (Student, University B, 2013)

> Overall, **the simulation was a great hands on experience that allowed me to apply theory** that I have learnt throughout my degree and increased my communication and team work skills which I can take with me to the workplace. (Student, University B, 2020)

> While this course was fun, it was also extremely eye opening and enjoyable to develop my knowledge in the area of business decision making. **I learnt about the importance of analysing all the information you have to optimise your decision as I found the team didn't always utilise this and made premature decisions that didn't positively impact <our team's> results**. Further to this, it has been 2 years since I studied the accounting for business course required in my degree. **Business decision making simulation gave me an opportunity to use the knowledge I had gained from that course in a real life scenario which has embedded the knowledge further, and I now understand how some of the course content can be used in a real business setting**. It was also a good reminder of the importance of accounting in business and decision making. (Student, University B, 2022)

> I really **loved the use of a simulation to run a mock car company, which can help us get a hands–on experience in managing a real–world company,** something which students like myself would aspire to in the future. (Student University A, 2023)

> The Cesim Simulation component of the course proved to be a valuable and practical learning experience. **It allowed students to apply theoretical knowledge in a simulated business environment, making strategic decisions and observing their impact on business performance.** The simulation stimulated critical thinking, problem–solving, collaboration, and teamwork skills. **The teacher's guidance and support throughout the simulation were exceptional, providing clear instructions, valuable insights, and timely feedback. Debrief sessions facilitated reflection and analysis, enabling students to learn from their decisions and improve their strategies.** (Student University A, 2023)

The student feedback mentioned above underscores the improvement in relationships between teachers and students, as well as among students themselves, facilitated by the simulation. This aligns with the findings in Anderson's research (2003), particularly in the section on "Building Relationships." Anderson's work emphasizes that the incorporation of simulations as a teaching approach offers ample opportunities for a substantial volume of interactions between students, interactions between students and course content, and interactions between students and teachers. These interactions naturally arise from teamwork and collaboration among students, the oversight and guidance provided by the teacher (as a facilitator), and the active engagement of students with theories they have previously studied in other business courses.

Lessons Learnt

By incorporating simulations in business education courses valuable lessons have been learnt. Key considerations include assessing the course length and how long the simulation will run in the course as well as ensuring accessibility for both students and staff to the simulations. It is also essential to consider class size and the number of staff required to support and provide meaningful discussions. Another key lesson is ensuring the simulation aligns with student backgrounds. For example, if the student cohort has multiple majors/specialisations, staff need to ensure that students can see the value from their different perspectives. Providing comprehensive training is paramount and is an integral part of onboarding students. The opportunity to undertake practice runs in the simulation gives them the confidence to use the simulation as a learning tool. The other side of this is the implementation of effective assessment and feedback methods, so students can see how the simulation learnings are built into the course assessments and subsequently support them to acquire skills, knowledge and expertise for their future careers. Furthermore, educators should focus not only on simulation performance but also on unpacking theoretical concepts and bridging the gap to real-world application.

Conclusion and future research

The inclusion of a business simulation course has shown that the students at both universities have achieved successful integration of their prior learning into real-world situations and also enhanced their knowledge of business theory outside of their specialisation. In addition, the teamwork elements inherent in operating an organisation have allowed students the opportunity to further develop their employability skills, specifically those related to teamwork, communication, problem solving and critical thinking.

Based on this research, the authors are currently developing a long-term strategy to investigate the impact of using business simulation as a capstone course on the students' development of business knowledge, application to real world practice and enhancement of employability skills across three countries, Australia, New Zealand and the United Kingdom.

References

Adobor, H. & Daneshfar, A. (2005). Management simulations: determining their effectiveness. *The Journal of Management Development*, *25*(2), 2005,151-168. https://doi.org/10.1108/02621710610645135

Anderson, T. (2003). Getting the mix right again: An updated and theoretical rationale for interaction. International Review of Research in Open and Distance Learning, 4(2). https://doi.org/10.19173/irrodl.v4i2.149

Barker, S. & Davy, M. (2019). 'Learning business through digital simulation: an analysis of student reflections', in SCY Wei, CK Mun, & A Alphonso (eds), *Personalised Learning. Diverse Goals. One Heart*. ASCILITE 2019, ASCILITE, 29-38. https://doi.org/10.14742/apubs.2019.2

Bel, R.l & Loon, M. (2015). The Impact of Critical Thinking Disposition on Learning using Business Simulations. *International Journal of Management Education*, *13*(2), 119-127. http://dx.doi.org/10.1016/j.ijme.2015.01.002

Boud, D., & Falchikov, N. (2007). Assessment for the longer term. In D. Boud & N. Falchikov (Eds), Rethinking assessment in higher education. London & New York: Routledge. https://doi.org/10.4324/9780203964309 https://doi.org/10.4324/9780203964309-7

Cadotte, E. R. (2016). Creating Value in Marketing and Business Simulations: An Author's Viewpoint. *Journal of Marketing Education*, *38*(2), 119–129. https://doi.org/10.1177/0273475316649741

Calabor, M. S., Mora, A., & Moya, S. (2019). The future of 'serious games' in accounting education: A Delphi study. *Journal of Accounting Education*, *46*, 43-52. https://doi.org/10.1016/j.jaccedu.2018.12.004

Evans, J., & Kerridge, C. (2021). Business simulations to develop employability skills in Strategic Management students. In C. Elliott, J. Guest, & E. Vettraino. (eds), *Games, Simulations and Playful Learning in Business Education* (pp. 113-125). Edward Elgar Publishing. https://doi.org/10.4337/9781800372702.00017

Fanning, R.M., & Gaba, D.M. (2007). The role of debriefing in simulation-based learning. *Simulation in Healthcare*, *2*(2):115-25. https://doi.org/10.1097/SIH.0b013e3180315539. PMID: 19088616.

Garris, R., Ahlers, R., & Driskell, J. E. (2002). Games, Motivation, and Learning: A Research and Practice Model. *Simulation & Gaming*, *33*(4), 441–467. https://doi.org/10.1177/1046878102238607

Kachra, A., & Schnietz, K. (2008). The Capstone Strategy Course: What Might Real Integration Look Like? *Journal of Management Education*, *32*(4), 476–508. https://doi.org/10.1177/1052562907300811

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.

Konak, M. (2019). *The effect of the teaching through simulation in the science and technology lessons on the earning the skill of hypothesizing in the lab activities* [Unpublished master thesis]. Inonu University, Malatya.

Kulkarni, B. & Sivaraman, V. (2022). Co-teach a business simulation to a large class: deepen engagement. Cogent Education, 9(1), 2066243. https://doi.org/10.1080/231186X.2022.2066243

Levant, Coulmont & Sandu, (2016). Business simulation as an active learning activity for developing soft skills. *Accounting Education*, *25*(4), 368-395. https://doi.org/10.1080/09639284.2016.1191272

Lohmann, G., Pratt, M. A., Benckendorff, P., Strickland, P., Reynolds, P., & Whitelaw, P. A. (2019). Online business simulations: authentic teamwork, learning outcomes, and satisfaction. *Higher Education*, *77*, 455-472. https://doi.org/10.1007/s10734-018-0282-x

McMurray, S., Dutton, M., McQuaid, R., & Richard, A. (2016). Employer demands from business graduates. Education + Training, 58(1), 112-132. https://doi.org/10.1108/ET-02-2014-0017

Mill, R. C. (2007). Meeting the needs of business: are we teaching the right things?. *Journal of College Teaching & Learning (TLC)*, *4*(8), 7-12. https://doi.org/10.19030/tlc.v4i8.1552

Neubaum, D. O., Pagell, M., Drexler, J. A., Jr., McKee-Ryan, F. M., & Larson, E. (2009). Business education and its relationship to student personal moral philosophies and attitudes toward profits: An empirical response to critics. *Academy of Management Learning & Education*, *8*(1), 9–24. https://doi.org/10.5465/AMLE.2009.37012176

Pfeffer, J., & Fong, C. T. (2002). The End of Business Schools? Less Success Than Meets the Eye. *Academy of Management Learning & Education*, *1*(1), 78–95. https://doi.org/10.5465/AMLE.2002.7373679

Poore, Julie & Cullen, Deborah & Schaar, Gina. (2014). Simulation-Based Interprofessional Education Guided by Kolb's Experiential Learning Theory. *Clinical Simulation in Nursing*, *10*, e241–e247. https://doi.org/10.1016/j.ecns.2014.01.004

Porter, C.M., & Woo, S.E. (2015). Untangling the networking phenomenon: A dynamic psychological perspective on how and why people network. *Journal of Management*, *41*(5), 1477-1500. https://doi.org/10.1177/0149206315582247.

Salas, E., Wildman, J. L., & Piccolo, R. F. (2009). Using simulation-based training to enhance management education. *Academy of Management Learning & Education*, *8*(4), 559–573. https://doi.org/10.5465/AMLE.2009.47785474

Succi, C., & Canovi, M. (2019). Soft skills to enhance graduate employability: Comparing students and employers' perceptions. Studies in Higher Education. https://doi.org/10.1080/03075079.2019.1585420

Thompson, G.H. & Dass, P. (2000). Improving students' self-efficacy in strategic management: The relative impact of cases and simulations. *Simulation & Gaming*, *31*(1) 22-41.

Vos, L., Brennan, R., & Brennan, R. (2010). Marketing simulation games: Student and lecturer perspectives. *Marketing Intelligence and Planning*, *28*(7), 882–897. https://doi.org/10.1108/02634501011086472

Whetten, D. A. (2007). Principles of Effective Course Design: What I Wish I Had Known About Learning-Centered Teaching 30 Years Ago. *Journal of Management Education*, *31*(3), 339–357. https://doi.org/10.1177/1052562906298445

Zulfiqar, S., Sarwar, B., Aziz, S., Ejaz Chandia, K., & Khan, M. K. (2019). An analysis of influence of business simulation games on business school students' attitude and intention toward entrepreneurial activities. *Journal of Educational Computing Research*, *57*(1), 106-130. https://doi.org/10.1177/0735633117746746