Immersive Learning as a Pedagogical Method in Higher Education

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Abstract

Student engagement has long been a topic of discussion amongst scholars and practitioners alike. This paper aims to address this issue by introducing a novel method of imparting knowledge in a marketing course. An exercise using the reflective cycle by Gibbs (1988) as a guiding framework lead to the emergence of the creative thinking model of experiential learning. The proposed model entails the expansion of Kolb's (1984) experiential learning model. Prominence is given to the relevance of creative thinking during the experiential learning process.

Keywords: Student engagement; creative thinking; experiential learning.

1. Introduction

Higher education plays a critical role in the development of countries at both the economic and social levels (Brennan and Teichler, 2008). To this end, business leaders expect new entrants to the workforce to be able to practice a set of desirable skills such as critical and creative thinking, problem-solving and sound communication skills (Partnership for 21st Century Learning, 2015) in an effort to embrace emerging problems. This is supported by Miller and Dumford (2016), who claim that to have workforce ready students, we need to pay attention to creativity in educational settings. Meanwhile, pedagogical issues in higher education have been given considerable attention over time (Osman and Hornsby, 2018), leading to a variety of approaches. New methods of imparting knowledge have been implemented globally alongside more traditional methods. This paper aims to share how student learning was enhanced by adopting a new perspective on pedagogical techniques used. Key concepts outlined in transformative learning theories guided our endeavour to encourage students to challenge their personal worldview and to enable them to make sense and give adequate meaning to the experience on the programme, as detailed below. To achieve this, a "deep, structural shift in basic premises of thought, feelings, and actions" is required on the part of students (Transformative Learning Centre, 2004). The social interaction required in the programme would engage the students to critically evaluate and transform their notion of theoretical concepts learned on the programme into offerings that may be implemented in the real world is hoped to lead to the achievement of this shift. The success of the overhaul of this study unit is hoped to address the call by Osman and Hornsby (2018) asking for higher education that repositions the way we teach and provide education for social change. To operationalise these concepts, Kolb's experiential learning model (Kolb, 1984) was used as a guiding framework.

Due to its nature, this paper brings together a mélange of different themes addressed in the conference, namely (i) innovative materials and new tools for teaching, (ii) teaching and learning experiences, and (iii) experiences outside the classroom.

2. Background

Goodhart (2020) identifies learning as a time-consuming social activity involving the acquisition of knowledge from others, while Vygotsky (1962) stipulated that we learn through our exchanges with others, including peers, tutors and experts. Overall, this makes learning a social process that might not necessarily be smooth. Student engagement, defined as the "time and effort students devote to educationally purposeful activities" (Kahu 2013, p. 2), is a topic that has attracted considerable attention. In 2014, Khan wrote about increasing concerns related to student engagement. Student engagement is considered a precursor to student success (Kahu, 2013; Kuh, 2008; Tani, 2020). Through his work, Kuh stresses that

student engagement and student success can be made possible through high impact activities. According to the author, deep learning can take place through seminars and experiences, sharing of everyday intellectual experiences, learning communities, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity and global learning, service learning and community-based learning, internships and capstone courses and projects. To this end, another consideration that can be made is to consider students as partners in learning (Healy et al., 2015). Engaging the students to become active contributors can increase engagement, and it may offer opportunities to inform the curriculum through reflective practices. Creative cognition through creative thinking methods is thought to foster student engagement. It "can be understood as a set of cognitive processes that support the generation of novel and useful ideas" (Beaty et al., 2016, p. 87). Student engagement may also be fostered by applying creative thinking methods to promote deeper learning.

3. Theoretical Underpinnings

The inspiration for the overhaul of the study unit in question emerged from an evaluative process undertaken after taking over coordination of the programme. We took this opportunity to enfranchise our students by embarking on an academically grounded but simultaneously practical assessment method. This required a different type of preparation of the students.

Teaching in any form is aimed at improving abilities. Malcolm and Zukas (2009) claim that teaching connects teachers and students through practices that are multidimensional and temporal. In his work Pew (2007) makes a clear distinction between pedagogical and andragogical aspects of teaching methods in HE. Pedagogy is oriented towards more traditional methods where the teacher imparts knowledge to the student. On the other hand, andragogy involves processes that facilitate learning for adults. As identified by Knowles (1970), the concept of andragogy has attracted considerable criticism from various scholars (Grace, 2001). Aware of the critical elements of both approaches, we prefer to identify our method as a pedagogical approach since learning is still imparted to students although it is done in a highly participatory manner. In her work Cook-Sather (2011) identified the following five pedagogical processes that promote active learning: (a) reflecting on practice, (b) developing meta-cognitive awareness and finding a language for it, (c) modelling and explaining, (d) engaging in pedagogical transparency, (e) inviting students to engage in reflection and dialogue. Our primary aim is to engage students in a reflective practice using Kolb's experiential learning model (Kolb, 1984). This guided the different stages of how we expected the newly designed study unit to unfold with the aim of promoting student engagement throughout the semester. Apart from the formal lectures, the experience made by the students is considered the key learning resource. Essentially, this will complement the processes identified by Cook-Sather. Our approach is primarily influenced by the conclusions

in the work of Malcolm and Zukas (2009, p. 503), who state that; "mindful disciplinarity, or a critical awareness of the discipline as a site of intellectual and social practice, renders purpose and practice within the discipline an explicit and essential concern of its practitioners." As academic practitioners, we feel that developing methods that may enhance student engagement is critical for their learning.

4. The procedure

The aims for the redesign of the study unit were primarily to enhance student engagement through a learning by doing method using creative thinking methods learned by the students in a different study unit hoping for cross-fertilisation between other study units. Previously, the study unit was based on formal lectures highlighting aspects of the marketing process using traditional lecturing methods. The main elements of the new study unit involve the following touchpoints aimed at enhancing the students' learning experience; (a) the delivery of theoretical foundations, (b) sessions with practising marketing professionals, (c) a meeting with a Mystery Client who typically is the managing director or marketing director of the participating organisation, (d) presentation of a marketing plan to the Mystery Client[1]. While working in pairs to prepare their marketing plan, students in this study-unit are encouraged to make use of the Creative Problem-Solving process (CPS) (Isaksen et al. 2010) to manage the information they gather and to explicitly use creative thinking methods to generate ideas. Through this project, we have tried to create an environment that can enable students to interact and engage with the curriculum as much as possible. The social interaction generated during the pair-work, during class discussions and while engaging with the Mystery Client and marketing professionals is thought to benefit the immersive aspect. At the same time, the students acquire social and professional skills. The competencies to be developed in this study unit are categorised in two areas, knowledge and understanding, where the students are expected to be in a position to have understood the main principles in marketing strategy and planning and to be able to be in a position to justify the benefit of the alignment of creativity and innovation with marketing strategies to be used in real-world settings. Secondly, the students are expected to have developed the necessary skills to compile a marketing plan by applying creative thinking methods to foster an innovative approach. These competencies are assessed by way of submitting a marketing plan and a presentation of the same plan. This

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[1] The Mystery Client is a real-world organisation that is invited to partner with the Univesity for the purposes of this study-unit. They typically are an established business who wish to address areas for improvement from a marketing perspective. The students act as marketing consultants to the Mystery Client who they meet and start engaging with on the sixth week of lectures following a formal learning component covering key principles in marketing. All students meet the Mysetery Client at the same time on the same day.

new design is hoped to enfranchise students by embarking on an academically grounded but simultaneously practical assessment method.

This novel approach was designed while being aware of the concerns raised above by Miller and Dumford (2016); a balance was sought between theoretical concepts and the opportunity to practice, thus applying experiential learning. On average, forty-two hours over fourteen weeks of student contact are assigned to the study unit. This design operationalised our belief that student engagement can contribute to the delivery of quality higher education where quality is seen as 'fit for purpose' (Akareem and Hossain, 2016).

5. Assessing the project

Evaluation of the success of the newly designed study unit was planned over two cohorts of students. Firstly, an observation phase with Cohort 1 during the academic year 2020/21. This led to an overall prima face satisfaction with the design involving the combination of theoretical knowledge and real-world exposure. Several indicators were observed, including; attendance to lectures, number and type of questions asked, number of interactions via email with the Mystery Client to elicit further information to facilitate the idea generation process and engagement with marketing professionals. During these sessions, we noticed that the students had an excellent level of engagement which was demonstrated by asking numerous detailed questions related to concepts that could support their work for the Mystery Client. In this case, an element of transference was observed. The student behaviour indicated that the embodiment of the role of a 'marketing consultant' was seen to improve engagement through the immersion method. A prima face the principles of 'constructive alignment' (Biggs and Tang, 2011), which involves a proactive pedagogical design where expectations of what the students should achieve by the end of the semester is outlined before the learning starts seem to have been well received. The immersive procedure appears to have stimulated the students to take ownership of the process. It was observed that the use of creative thinking methods like the CPS, which students were previously exposed to, acted as empowerment tools that facilitated how they structured their work and planned a course of action accordingly.

This observation process led to various annotations and meetings between the two authors to further develop the study unit and plan the data collection process. The second part of our project will involve collecting data from students in the form of feedback from Cohort 2, including students enrolled during the academic year 2021/22. Ethics clearance was sought from the relevant faculty within the university. Given that the study unit is typically accessed by approximately fifteen students on a niche Master's programme we decided to adopt a mixed-method approach to collect data for further analysis. To this end, students were presented with an information letter and a consent form at the beginning of the semester.

They were made aware that participation is voluntary and will not influence their final grade in the study unit.

Data will be collected through a focus group managed by the academics responsible for the study unit. From a conceptual point of view and to facilitate the discussion during the focus group, the reflective cycle by Gibbs (1988) will be used as indicated in Table 1.

Table 1. Prompts for use during the focus group.

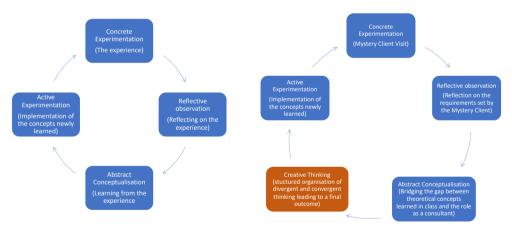| Stage	Cues
Description	Where and when did the activities unfold? What happened? What was the outcome of the activities?
Feelings	How did I feel during the delivery of this study unit? What contributed to these feelings?
Evaluation	What went well during the project? What didn't work out well?
Analysis	Why did the process work out? What can be improved?
Conclusion	What did I learn from this experience? What could have been done differently?
Action Plan	How can the process be improved for next time?

Figure 1: (left): Kolb's Experiential Learning Model (1984), (right): Creative Thinking Model of Experiential Learning. Adapted from Kolb (1984).

A second data collection method involves the use of questions measuring student engagement (I felt involved; I discuss the benefits with others), and their satisfaction with the course (This is one of the best courses I could have taken; Taking this course was a good experience) will be distributed for anonymous completion. The responses are adapted from the work of Oliver (1993) and will be measured on a five-point Likert scale.

6. Reflections and Conclusion

Kolb's experiential learning model was initially used to design this immersive approach. The model was regularly referred to as the activities unfolded with Cohort 1. It was noticed that within the model, a new component emerged. The encouragement to use creative thinking methods by the students led us to realise that the structured organisation of the thinking process facilitated the transition between abstract conceptualisation and active experimentation as used in Kolb's model. To this end, we propose including a new stage in the experiential learning cycle; Creative Thinking. The creative process involves shifting thinking modes. In his Structure of Intellect, Guilford (1967) identified five facets of creativity. Convergent and divergent are two of these modes of thinking employed to fine-tune information or new ideas leading to a final outcome. Students were observed using the information and observations gathered to define a problem and generate ideas in the search for a novel solution before embarking on active experimentation. An illustration of the proposed model may be found in Figure 2.

In conclusion, we feel that the new design enacted a transformative stance in the students by immersion through the allocation of concepts set in the experiential learning model, thus addressing issues raised by Osman and Hornsby (2018) and Miller and Dumford (2016). This was accomplished through engagement with a real-world scenario and the use of creative thinking methods. We ensured that a contextualised programme was assembled to enhance the level of sense-making, leading to a heightened experience. Further research could point in the direction of empirical studies measuring student engagement due to this approach. A limitation of this project emerged since data from previous cohorts before the overhaul of the study unit was not collected.

References

Akareem, H.S., & Hossain, S.S. (2016). Determinants of education quality: what makes students' perception different? *Open Review of Educational Research, 3*, 52 - 67.

Beaty, R.E., Benedek, M., Silvia, P.J., & Schacter, D.L. (2016). Creative Cognition and Brain Network Dynamics. *Trends in Cognitive Sciences, 20*, 87-95.

Biggs, J., & Tang, C. (2011). *Teaching for Quality Learning at University*. Maidenhead, UK: Open University Press.

Brennan, J., & Teichler, U. (2008). The future of higher education and of higher education research. *Higher Education*, 56(3), 259–264.

Cook-Sather, A. (2011). "Lessons in Higher Education: Five Pedagogical Practices That Promote Active Learning for Faculty and Students." *The journal of faculty development* 25, 33-39.

Gibbs, G. (1988). *Learning by doing: A guide to teaching and learning methods.* London: Further Education Unit.

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Grace, A. P. (2001). Using queer cultural studies to transgress adult educational space. In V. Sheared & PA. Sissel (Eds.), *Making space: Merging theory and practice in adult education* (pp. 257-270). Westport, CN: Bergin & Garvey.

Guilford, J.P. (1967). *The nature of human intelligence.* McGraw-Hill.

Goodhart, C. (2020), "Learning is a social activity", *Review of Behavioral Finance*, Vol. 12 No. 1, pp. 21-25. https://doi.org/10.1108/RBF-10-2019-0149

Healey, M., Bovill, C., & Jenkins, A. (2015). Students as partners in learning. In Lea, J. (Ed.), *Enhancing learning and teaching in higher education: Engaging with the dimensions of practice* (pp.141-163). Maidenhead: Open University Press

Isaksen, S.G., Dorval, K.B., & Treffinger, D.J. (2010). *Creative Approaches to Problem Solving: A Framework for Innovation and Change*. SAGE.

Kahn, P.E. (2014), Theorising student engagement in higher education. *Br Educ Res J*, 40: 1005-1018. https://doi-org.ejournals.um.edu.mt/10.1002/berj.3121

Kahu, E.R. (2013). Framing student engagement in higher education. *Studies in Higher Education, 38*, 758 - 773.

Knowles, M. S. (1970). *The modern practice of adult education: Andragogy vs. pedagogy*. Chicago: Association Press/Follett.

Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice Hall.

Kuh, George D. (2008). High-impact educational practices: What they are, who has access to them, and why they matter. AAC&U, Washington, D.C.

Malcolm, J. & Zukas, M. (2009) Making a mess of academic work: experience, purpose and identity - *Teaching in Higher Education*, 14(5), pp. 495-506

Miller, A.L. and Dumford, A.D. (2016), Creative Cognitive Processes in Higher Education. *J Creat Behav*, 50: 282-293. https://doi.org/10.1002/jocb.77

Oliver, Richard L. (1993), Cognitive, Affective, and Attribute Bases of the Satisfaction Response, *Journal of Consumer Research,* 20 (December), 418-30.

Osman, R. and Hornsby, D. J. (2018) Possibilities towards a socially just pedagogy: New tasks and challenges, *Journal of Human Behavior in the Social Environment*, 28:4, 397-405, DOI: 10.1080/10911359.2018.1441083

Partnership for 21st Century Learning (2015). *P21 Framework Definitions*. Retrieved from www.p21.org/our-work/p21-framework

Pew, S. (2007). Andragogy and pedagogy as foundational theory for student motivation in higher education. *InSight: a collection of faculty scholarship*, *2*, 14-25.

Tani, M., Gheith, M.H. & Papaluca, O. (2021). Drivers of student engagement in higher education: a behavioral reasoning theory perspective. *High Educ* 82**,** 499–518. https://doi-org.ejournals.um.edu.mt/10.1007/s10734-020-00647-7

Transformative Learning Centre. (2004). *The Transformative Learning Centre*. https://www.oise.utoronto.ca/tlcca/ Accessed January 28, 2022.

Vygotsky, L.S. (1962). Thought and Language. Cambridge, MA: MIT Press. (Original work published in 1934)