

STUDENT PERCEPTIONS OF PROJECT-BASED LEARNING IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) HOSPITALITY EDUCATION: A CASE OF A TVET COLLEGE IN GAUTENG

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Abstract

Project-based learning (PjBL) is an experiential-learning (EL) pedagogy believed to enable students to acquire content knowledge and skills and to build personal agency needed for the challenges of life and work. Although work-integrated learning (WIL) through internships and workplace learning is established in hospitality curricula within the technical and vocational education and training (TVET) environment, the application of PjBL remains unexplored. Therefore, it is necessary to investigate what other teaching and learning pedagogies can be used within the TVET hospitality curriculum to encourage students to acquire the relevant knowledge, skills, attitudes, and competencies needed to be successful in the hospitality industry. Using a convergent mixed-methods approach, this study employed an experiential learning survey (ELS) with 144 respondents ($n=144$) and a semi-structured interview involving 18 participants within two hospitality TVET programmes at a TVET college in Gauteng, South Africa. The findings indicate that PjBL is effective in TVET hospitality education in that it helps students acquire work-related knowledge, skills, attitudes, and competencies. It provides an engaging and meaningful avenue for collaborative learning and enables students to apply classroom concepts to real-world challenges. PjBL not only encourages critical thinking and problem-solving, but also fosters creativity and collaboration. Moreover, it helps students to develop important 21st-century skills for their future work.

Keywords: Project-Based Learning, Work-Integrated Learning, Technical and Vocational Education and Training, Hospitality Education, Skills

Introduction and Background

The highly competitive, complex and labour-intensive hospitality industry is characterised by excellent service quality (Olowoyo, Ramaila, & Mavuru, 2020; Shereni, 2020). When graduates apply for positions in the hospitality industry, employers expect employable skills and competencies besides academic knowledge (Adeyinka-Ojo, 2018; Green & Du Plessis, 2023; Olowoyo et al., 2020). However, a study of hospitality graduates by recruiters identified three limitations: inadequate work experience, a deficiency in skills, and an overreliance on academic accolades (Kitterlin-Lynch, Williams, & Zheng, 2015). Furthermore, Olowoyo et al. (2020) and Alhelalat (2015) argue that a gap still exists between hospitality curriculum outcomes and the hospitality industry's expectations and requirements. Because graduate skills often do not meet industry needs, it is important that the hospitality industry and educators work together to make the hospitality curriculum relevant and meaningful to students.

To ensure that students have the knowledge, skills, attitudes, and competencies that potential employers look for, innovative ways of teaching and learning must be developed that will enhance students' learning and employability outcomes. In South Africa and the rest of the world, technical and vocational education and training (TVET) hospitality education aims to provide students with the necessary skills, understandings and personal characteristics for future employment opportunities and advancement. As a result, many hospitality education institutions have incorporated experiential learning (EL), namely work-integrated learning (WIL), into their hospitality curricula to help students gain work-related skills and competencies. The most common types of WIL in hospitality education programmes around the world are internships and workplace learning (WpL) (Bilsland, Nagy, & Smith, 2020; Kay, McRae, & Russell, 2020; Onyuna, 2019; Roeloffze & Kleynhans, 2018).

Incorporating these two types of WIL in hospitality curricula pose several challenges. Roeloffze and Kleynhans (2018) report on the challenges faced by departments of higher education in hospitality such as placing students in the industry successfully and ensuring that students complete their WIL. Other difficulties relating to students' experiences while completing their internships and WpL include supervisors' and co-workers' attitudes towards students; working overtime; problems with feedback provided at the end of the WIL programme; working the graveyard shift; insufficient support from the academic institution; and no remuneration (Dwesini, 2017; Ndlovu & Nyane, 2018).

The Covid-19 pandemic, which had an impact on both the hospitality industry and higher education, is a more recent challenge experienced by hospitality departments in higher education. Because of the halting of hospitality-related businesses (Bilsland et al., 2020) and the temporary closure of higher educational institutions (Gonzalez et al., 2020), many students' theoretical and practical components were affected (Hedding, Greve, Breetzke, Nel & Jansen van Vuuren, 2020; Kay et al., 2020). It is therefore important to explore teaching and learning pedagogies of WIL other than the traditional internship and WpL to improve developing students' employability.

Although many hospitality education programmes recognise the importance of applied work experience, Sebby and Brown (2020) argue that more research on alternative WIL approaches to hospitality education is needed. Therefore, this study seeks to address this gap by investigating the effectiveness of PjBL as a potential pedagogical approach within TVET hospitality education, aiming to measure students' perception of the meaning or value of PjBL while bridging the gap between academic preparation and industry expectations regarding knowledge, skills, attitudes, and competencies.

Aim of the Study

In recognition of the need for innovative teaching and learning approaches to adequately equip students with the knowledge, skills, attitudes, and competencies, this research seeks to explore the effectiveness of project-based learning (PjBL) as an EL pedagogy. By addressing this need, the study aims to contribute to ways in which PjBL can enhance students' readiness.

Therefore, this study investigates project-based teaching and learning to promote work-related skills and competencies in hospitality students at a TVET college. The research question addressed in this empirical study is: How does PjBL, as an EL pedagogy, influence hospitality students' work-related skills and competencies? This inquiry seeks to explore approaches to WIL other than traditional internships and WpL to ultimately enhance students' employability in a dynamic hospitality sector.

Review of the Literature

This study is situated squarely within the South African TVET context. It investigates the role of PjBL and its contribution to the work-related knowledge, skills, attitudes, and competencies required by hospitality employers. Therefore, the relevant literature is reviewed in three sections: a) the TVET environment in South Africa, b) hospitality education in the TVET environment, and c) PjBL.

The Technical and Vocational Education and Training Environment in South Africa

The TVET college system in South Africa consists of 50 colleges spread across 364 campuses (Department of Higher Education and Training (DHET), 2023). The purpose of the TVET environment is to equip young school leavers with the knowledge, skills, and attitudes required for self-employment and labour force employment (Masoabi & Alexander, 2021; Shereni, 2020; Sishi, 2022). The TVET environment plays a pivotal role in transferring work-related skills (Shereni, 2020) and improving the skills base of citizens (Masoabi & Alexander, 2021). Within TVET, two distinct systems coexist. They are the Report 191 or national accredited technical diploma (NATED) programmes and the national certificate or national certificate vocational (NC(V)) programmes. Individuals who have obtained their national senior certificate (Grade 12) or NC(V) level 4 are eligible to apply to enrol in a NATED programme. Individuals who have completed Grades 9 to 11 may seek to complete the NC(V) level 4, which is equivalent to a national senior certificate (Kuehn, 2019). To obtain a NATED diploma, 18 months or 2 000 hours of practical work experience alongside 18 months of classroom instruction are required (Kuehn, 2019). Similarly, students aiming for their NC(V) level-4 qualification need to undergo three years of full-time study.

Hospitality Education in Technical and Vocational Education and Training Environment

Within the TVET context, two hospitality certifications are available: Hospitality and Catering Services at the NATED level and Hospitality Studies at the NC(V) level. Both programmes include practical tasks. The NATED programme has three components (theory, practical tasks, and workplace experience) whereas the NC(V) programme has two (theory and practical tasks) (DHET, 2018; Kayode, Noordin, & Wahid, 2020). Students in the NC(V) programme do not have to meet the WpL requirement. To gain employable skills, students in both programmes complete practical assignments or tasks that are assessed as part of the internal continuous assessment (ICASS).

The NC(V) programme includes an integrated summative assessment task (ISAT) that assesses students' ability to apply their knowledge in a simulated or structured environment (DHET, 2020).

Project-based Learning as a Teaching and Learning Pedagogy

Educators around the world believe that PjBL is an important instructional approach that allows students to master content knowledge, develop the skills necessary for future success, and build the personal agency needed for life's and the world's challenges (Green & Du Plessis, 2023; High Quality Project Based Learning, 2018; Juliet, 2020; UNESCO, 2016; Wilson & Essel, 2021). PjBL involves an inquiry-based instructional method (Albar & Southcott, 2021; Guo, Saab, Post & Admiraal, 2020; Kokotsaki, Menzies & Wiggins, 2016) that engages students in "knowledge construction by having them accomplish meaningful projects and develop real-world products" (Guo et al., 2020, p. 2), presentations, or performances within a given time (Albar & Southcott, 2021).

These projects usually involve researching a complex problem, question or challenge as an extension of what has already been learnt in a class (Güven & Valais, 2014). A collaborative learning environment is formed when students are placed in teams or pairs with the supervision of an educator, facilitator or mentor (Budhai & Skipwith, 2022; Council on Higher Education, 2011). Krajcik and Shin (2014) contend that the PjBL environment has six key elements, which include a) a driving question; b) a focus on learning goals; c) participation in educational activities; d) engaging through collaboration; e) scaffolding with the use of learning technologies; and f) creating a tangible product.

In their engagement with the project, students may encounter problems that need to be addressed for them to construct and present the end product in response to the driving question (Kokotsaki et al., 2016). The educator guides students to frame meaningful questions, facilitate the conversation of knowledge development, and organise tasks. In addition, the educator provides ongoing feedback on what students have learnt from their experiences (Budhai & Skipwith, 2022; Güven & Valais, 2014). This way, educators and students develop an "inclusive relationship learning partnership" amongst themselves (Güven & Valais, 2014, p. 184).

During PjBL, students are tasked with exploring meaningful questions that necessitate the gathering of information and critical thinking (Liu, 2019). This allows them to learn through interest and motivation, and apply new knowledge in a problem-solving context (Budhai & Skipwith, 2022). Fini, Awadallah, Parast and Abu-Lebdeh (2018) assert that PjBL allows groups of students to work together to solve practical problems and then present and defend their approaches and solutions. This promotes students' intellectual and social development. Furthermore, it requires students to actively participate in the process of acquiring knowledge and improves not only their communication and interpersonal skills, but also their leadership skills and creativity (Fini et al., 2018).

In the context of PjBL, students' "voice and choice" is encouraged through meticulously orchestrated instructional milestones, as highlighted by Güven and Valais (2014, p. 184). These authors maintain that consistent formative assessments of these milestones play a crucial role in steering students through the project's development, motivating them to delve more profoundly into the acquired concepts.

Theoretical Framework

Kolb's experiential learning theory (ELT) represents a significant and influential educational approach by emphasising that students learn most effectively by actively engaging with the material. Rooted in the contributions of foundational scholars such as John Dewey; William James; Kurt Lewin; Lev Vygotsky; Jean Piaget; Paulo Freire; Carl Jung; Carl Rogers; and Mary Follett, ELT places experience at the core of the learning process, envisioning an education system centred around the learner (Kolb & Kolb, 2017; Passarelli & Kolb, 2020). Dewey, a key proponent, contends that experience is continuous and that EL is fundamental in education and adult development (Vasiliene-Vasiliauskiene, Vasiliauskas, Meidute-Kavaliauskiene, & Sabaityte, 2020). Dewey believes that the essential elements of EL are experience, inquiry and reflection (Passarelli & Kolb, 2020). Moreover, Dewey advocates for practical and diverse experiences, asserting that they enhance students' overall preparedness for future life and surpass the benefits of traditional curricula (Dewey, 1986, as cited in Bradbury, Schwarz & Lenton, 2021).

In its most current state, ELT (Kolb & Kolb, 2017, 2018; Passarelli & Kolb, 2020) is recognised as a dynamic and holistic model defining learning as primarily a process of human adaptation that involves the entire person (Bell & Bell, 2020; Kolb & Kolb, 2017; Passarelli & Kolb, 2020). Kolb's theory posits a four-stage learning process encompassing concrete experiences, reflective observation, abstract conceptualisation, and active experimentation (Kolb & Kolb, 2018; Passarelli & Kolb, 2020). These stages, as described by Kolb, constitute a continuous cycle in which individuals engage in experiences, reflect on them, develop new concepts and theories, and test them in subsequent experiences (Kolb & Kolb, 2017, 2018; Passarelli & Kolb, 2020).

Kolb's theory has found extensive application across diverse fields such as education, business, psychology, and information science (Passarelli & Kolb, 2020). In education, instructional strategies that foster both active and reflective learning are designed according to Kolb's theory (Askren & James, 2021; Patil, Hunt, Cooper & Townsend, 2020). The validity of Kolb's theory has been proven by various empirical studies. For example, Pamungkas, Widiastuti and Suharno (2019) show that applying Kolb's ELT improves students' conceptual understanding and develops their knowledge and abilities. A study conducted by Calderón Carvajal, Ximénez Gómez, Lay-Lisboa and Briceño (2021) confirms the existence of four learning mode dimensions.

Nevertheless, Kolb's theory has been criticised in various systematic reviews and studies (Atherton, 2013; Bergsteiner, Avery, & Neumann, 2010; Calderón Carvajal et al., 2021; Johnson, Khan, & Saeed, 2020; Kumar & Bhandarker, 2020; Matsuo & Nagata, 2020; Morris, 2020; Ndlovu & Nyane, 2018). Scholars have raised concerns about its lack of robust theoretical and empirical foundations (Bell & Bell, 2020; Burch, Giambatista, Batchelor et al., 2019; Miettinen, 2000; Morris, 2020; Wheeler, 2012). The premise, design, acceptance of constructs, and the generalisability and effectiveness of the theory have also been queried (Kumar & Bhandarker, 2020). Calderón Carvajal et al. (2021, p. 605) find that although Kolb's model reflects the presence of the four learning modes, the absence of an "orthogonal bipolar structure" suggests learning modes rather than learning styles. They argue that learning styles are non-viable because of their failure to conform to the orthogonal bipolar structure. Despite these criticisms, Kolb's ELT remains influential in education and continues to be widely utilised across various fields (Kolb & Kolb, 2018; Morris, 2020), notably in hospitality education (Askren & James, 2021; Dillette & Sipe, 2018; Zisan, Albattat & Bvvasar, 2021). It offers a valuable framework for comprehending strategies that promote both active and reflective learning.

Research Method and Approach

This study used the convergent mixed-methods research approach to gain a thorough understanding of the topic. Creswell and Guetterman (2021) define convergent mixed methods as a research approach in which quantitative and qualitative (QUAN+QUAL) data are collected concurrently, weighted equally, analysed independently, and then interpreted jointly. The researchers intend to triangulate the methods for corroboration and validation by comparing QUAN results and QUAL findings.

A 7-point Likert-type experiential learning survey (ELS) was conducted to collect QUAN data from respondents' PjBL experiences after they had completed a project in either Catering Theory and Practical N6 (on NATED level) and Hospitality Services level 3 (on NC(V) level) (Clem, Mennicke, & Beasley, 2014). Ethical clearance for the research was obtained by the University of South Africa's College of Education Ethics Review Committee and the TVET college where the study was conducted. The study was done at a single TVET college with multiple campuses situated in the Gauteng province of South Africa, during the 2021 and 2022 academic years. Students who voluntarily participated in the survey were invited to a semi-structured interview. Before the survey and interview were conducted, participants had to give their voluntary consent. Only three of the twenty questions flowing from the research question were included in this article. The three questions were:

- a) What challenges did you experience in the planning phase of the project?
- b) Do you think that the project has helped you understand the content of the module? Please explain your answer.
- c) What knowledge and skills have you taken from the project that you can use in the future?

Reliability and Validity of Quantitative Data

A total of $n=144$ responses were received from a total population of $N=181$ selected by means of simple random sampling. A 99.0% confidence level with an $E=4.87\%$ was achieved. Noori (2021) and Cohen, Manion, and Morrison (2018) postulate that, in education research, a confidence level of between 95 and 99 per cent is common. Cronbach's alpha was used to evaluate the reliability of the ELS scale. A Cronbach's alpha of .802 was achieved for the global EL scale, indicating high reliability. According to Hinton, McMurray and Brownlow (2014), a value between .70 and .90 is considered high reliability. A similar result was achieved in a study by Danko (2019) who attained a Cronbach alpha of .947.

Trustworthiness of the Qualitative Data

Collins and Hussey (2021) use the four criteria of Lincoln and Guba (1985) (credibility, transferability, dependability, and confirmability) to ensure trustworthiness in a qualitative content analysis. Credibility involves accurate participant identification. Transferability allows for generalisation to other settings or groups. Dependability relies on stable data. Confirmability, emphasising objectivity, is maintained through an audit trail and verbatim transcripts edited for clarity without altering participants' intended meanings (Thorne, 2020).

Results

The results for the 28-item ELS are shown in Table 1. The mean and median were used to measure the central tendency for the ordinal measures of the survey (Danko, 2019; Noori, 2021). Despite the debate about the ordinal or interval nature of the Likert-style scale within the statistics and research communities, educational research as well as statistical recommendations such as those in Creswell and Guetterman (2021) and Danko (2019), refer to scales indicated in Table 1 as ordinal data and view the median as a measure of central tendency. Danko (2019) adds that the median is best suited as this study did not include any participant group comparisons. The 7-point Likert scale used for the ELS answers ranged from strongly disagree (1) to strongly agree (7).

As this study aimed to determine students' perception of PjBL in acquiring work-related skills and competencies while completing a project, both the individual median scores of each item and the overall global median score can be examined for interpretation (Clem et al., 2014). Moreover, five of the 28 items (items 3, 9, 15, 23, 27) were reverse-coded for consistency. High scores in the scoring rubric indicate a high level of the perceived value of the learning experience (Clem et al., 2014; Danko, 2019; Hefley & Thouin, 2016).

Table 1

Experiential learning scale results (n=144)

No	Items	Mean	Median
1	The setting where I learn helps me understand the learning material better	5.72	6.00
2	I expect real-world problems to come up during this learning experience	5.61	6.00
3	The environment I learn in does not enhance the learning experience_RECOTE	3.72	3.00
4	The learning experience requires me to interact with people other than students and teachers	5.65	6.00
5	I expect to return to an environment similar to the one where this learning experience occurs	5.78	6.00
6	I am stimulated by what I am learning	6.07	6.00
7	The learning experience requires me to do more than just listen	6.44	7.00
8	The learning experience is presented to me in a challenging way	5.08	6.00
9	I find this learning experience boring_RECOTE	5.65	6.00
10	I feel like I am an active part of the learning experience	6.07	6.00
11	The learning experience requires me to really think about the information	5.98	6.00
12	I am emotionally invested in this experience	5.65	6.00
13	I care about the information I am being taught	6.42	7.00
14	The learning experience makes sense to me	6.29	7.00
15	This learning experience has nothing to do with me_RECOTE	4.90	7.00
16	This learning experience is enjoyable to me	6.15	7.00
17	I can identify with the learning experience	5.93	6.00
18	This learning experience is applicable to me and my interests	6.28	7.00
19	My educator encourages me to share my ideas and past experiences	5.58	6.00
20	This learning experience falls in line with my interests	6.00	6.00
21	I can think of tangible ways to put this learning experience into future practice	6.27	6.50
22	This learning experience will help me do my job better	6.51	7.00
23	This learning experience will not be useful to me in the future_RECOTE	5.69	7.00
24	I will continue to use what I am being taught after this learning experience has ended	6.24	7.00
25	I can see value in this learning experience	6.49	7.00
26	I believe this learning experience has prepared me for other experiences	6.46	7.00
27	I doubt I will ever use this learning experience again_RECOTE	5.90	7.00
28	I can see myself using this learning experience in the future	6.61	7.00
GLOBAL SCALE (potential 0-196)			178.50

The results in Table 1 indicate that in the subjects Catering Theory and Practical N6 and Hospitality Services level 3 students had a high overall perception of the value of PjBL in acquiring relevant work-related skills and competencies for the hospitality industry. A low median score of 3 was achieved for item 3 “the environment I learn in does not enhance the learning experience”. This low score could be attributed to a lack of resources to research information on the project such as a library and computers or computer labs, because many students had to do research on their mobile phones. They found it difficult to do research on their mobile phones because of the small screens and a lack of data. This is confirmed by the QUAL results. Participant (Part) 15 stated the following:

“We were also frustrated as there was a lack of resources such as a library and computer for us to do our research. We had to use cell phones. It's not easy because we don't have data and it's difficult for us to get money for data. Also, the cell phone is too small to give us the information needed for research.”

During the interview, participants were asked if PjBL assists them in understanding the subject content. They believed that the project allowed them to practically develop their theoretical content knowledge. PjBL not only gave them a better understanding of the subject content for assessment purposes, but also prepared them for working within the hospitality industry. In addition, the project allowed them to demonstrate and develop their knowledge and skills. Two participants confirmed this:

“Yes, it helped very much because it was a practical project that was much better than theory. It also helped me to gain new skills and knowledge needed for the hospitality industry. It has helped me with my assignment and tests.” (Part15)

“Yes, the project has helped me understand the contents of Catering and Theory as we are taught theoretically in class and it helps to put the theoretical knowledge into perspective as the project provides a practical platform to learn and practise our knowledge and skills.” (Part18)

Part1 added that the project assisted her not only in understanding the subject content but also in actively engaging in real-world and personally meaningful learning. Through the project, she acquired knowledge and skills that she could apply to her personal life in organising events.

“It did help me a lot because most of the time I do not concentrate in class, I lose concentration. I can concentrate for the first 30 minutes and then I lose concentration. I feel like it's going to be much easier for me if I do this practically because, like I said, some of the words I do not understand, I do not know them. But if I can see or hear them and if I can be taught practically, it will help me a lot. Even after the project, I had a function that I had to host on my own. Someone asked me to help her with the baby party. I did that and it came out perfectly and as I'm speaking now I have another big function. I have to cater for 50 people for a graduation next month. So yeah, it really helped me a lot.” (Part1)

Part16 agreed that PjBL teaches students entrepreneurial skills.

“Yes, I think it quite helped us to understand what information is in the syllabus and also how to be an entrepreneur by making food and teaching us how to sell and work with customers.” (Part16)

Next, participants had to indicate the knowledge and skills they have acquired during the project and can use in the future. An Atlas.ti 22 word cloud, as shown in Figure 1, was used to illustrate the knowledge and skills that students acquired during the project.



Figure 1

Participants’ opinions on the knowledge and skills they acquired through project-based learning.

According to Figure 1, students acquired knowledge and several skills thanks to PjBL. *Cooking* was the most frequently used word. Since both projects entailed the preparation of food for a cultural function and a fast-food service, cooking was the main skill. The word *cooking* was followed by the words *decor*, which is required to set up the project, *marketing* knowledge and *selling* and *advertising*. Other operative words were *leadership* skills, *menu* planning, *ordering* of ingredients, designing *posters* and *invitations*, and the *service* of food. This confirms that PjBL enables hospitality students to acquire and demonstrate knowledge and skills.

Discussion

In TVET programmes, PjBL assist students to develop the knowledge and skills they need to succeed in their chosen field.

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Owing to such projects, students can learn about various aspects of the hospitality industry and gain practical experience that will be valuable in their future careers (Albar & Southcott, 2021; Guo et al., 2020; High Quality Project Based Learning, 2018; Juliet, 2020; Kokotsaki et al., 2016; Wilson & Essel, 2021). This is reflected in the findings of the study, namely that the majority of students believe that PjBL supports their learning within the hospitality programme (Clem et al., 2014; Danko, 2019; Hefley & Thouin, 2016).

Students commented that the project was an authentic learning experience that engaged them in solving a real-world problem that was relevant to their lives (Green & Du Plessis, 2023; Guo et al., 2020). They also stated that the knowledge and skills gained and developed thanks to the project could be applied in a similar working environment in the hospitality industry. By working on projects that simulate real-world problems, students learn to apply and demonstrate their knowledge and skills in practical ways, especially if the project is created for a real audience or external stakeholders (Budhai & Skipwith, 2022; Fini et al., 2018).

Students observed that PjBL helped them to understand the content of the subject better than classroom lectures ever could (Danko, 2019; Green & Du Plessis, 2023; Guo et al., 2020; Hefley & Thouin, 2016; Pamungkas et al., 2019; Passarelli & Kolb, 2020). They claimed that PjBL enables them to actively engage in the learning process both physically and mentally in contrast to being told what to do or simply listening to the educator. PjBL can be particularly effective in helping students develop their work skills and competencies as it allows them to practise and apply what they have learned in a realistic and relevant context (High Quality Project Based Learning, 2018; Juliet, 2020). Moreover, most students value the experience they have acquired, experience that will be invaluable for future endeavours (Fini et al., 2018; Juliet, 2020). This increases the likelihood that their newly acquired knowledge and skills will be used later by relating past experiences to the future (Kolb & Kolb, 2017, 2018; Passarelli & Kolb, 2020).

Furthermore, PjBL assists students to retain information and develop a deeper understanding of the subject because it requires them to actively engage with the material and apply what they have learnt in a meaningful context. Additionally, students that find PjBL engaging and relevant to their lives and future work are more motivated and focused throughout the learning process.

Lastly, the students mentioned the various skills they acquired in PjBL as shown in Figure 1. These skills have been proven relevant and necessary when students graduate and begin the process of finding work. Therefore, students are in possession of not only a qualification, but also the skills, attitudes and competencies needed for working in a highly competitive, complex and labour-intensive industry (Olowoyo et al., 2020; Shereni, 2020). As illustrated in the survey and stated in the interview, it is, therefore, critical that TVET institutions and educators ensure that students have the resources to complete such projects. The availability of resources will avoid unnecessary frustration and allow them to immerse themselves in a project.

Recommendations and Future Research

The following recommendations are made based on the outcome of this study. First, the use of PjBL requires various resources to complete a project. Resources are crucial to the learning process and the success of a project. A project should have a budget and all essential resources should be made available to students. The TVET college management team, campus management and the educator should ensure that the resources are available to students. If students lack the tools to finish their project and fully participate in the learning process, they may encounter additional obstacles. Furthermore, providing students with the necessary resources ensures their success in PjBL.

Second, the educator should provide guidance, support and inspiration to students throughout PjBL. Because many students will experience PjBL for the first time, educators must not take control of the PjBL process, but must rather guide, support and mentor students to achieve the project outcomes.

Finally, the educator should engage with students about the project topic, problem, challenge or content based on the project structure provided by the project guidelines. Allowing students to choose a project topic, problem, challenge or content can be an effective way to engage them in the learning process as they will be involved in the project and motivated to complete it (Güven & Valais, 2014).

The primary focus of this study was student perspectives. Given the importance of successful PjBL implementation for both students and educators, further research contrasting the findings of this study with their perspectives will be useful. It will also be interesting to see how TVET educators adapt their teaching and learning strategies to include PjBL in the hospitality education curriculum and take this study's conclusions into account.

Conclusion

The fast-paced and dynamic hospitality industry requires skilled and competent professionals. TVET hospitality graduates entering the industry need knowledge, skills, attitudes, and competencies to function effectively and render the excellent service hospitality employers and guests staying at hospitality establishments expect. Therefore, this study investigated project-based teaching and learning instead of the usual WIL such as internships and WpL, to promote work-related skills in hospitality students at a TVET college. In this research, the authors explored whether PjBL, as an EL teaching and learning pedagogy, could be used to equip students with the skills and competencies required by the industry.

The study found that students perceive PjBL as a highly effective teaching-and-learning pedagogy that helps them to acquire work-related knowledge, skills, attitudes, and competencies. Furthermore, PjBL is an engaging and meaningful way for students to engage collaboratively with the subject content and their peers, and practise what they have learnt in the classroom in a controlled manner.

It further allows students to work on real-world problems, which not only encourages critical thinking and problem-solving but also fosters creativity and collaboration.

Moreover, PjBL helps students develop important 21st-century skills that prepare them for the world of work. But to ensure the success of a project, TVET colleges and educators must see to it that students have access to the resources needed to plan and implement it. Resources will encourage students to fully immerse themselves in a project and will enable them to overcome challenges and meet project goals within the designated time. In conclusion, curriculum developers are encouraged to incorporate PjBL into hospitality curricula as part of students' EL to prepare them for the workplace.

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