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Integrating design concepts learned in the classroom with real-life issues: A case study

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Abstract

Community service learning (CSL), generally known as service learning, is a method of teaching and learning in which specific needs in the community are combined with learning objectives and goals to stimulate meaningful learning experiences. CSL provides students with opportunities to relate and channel what they have learned in the classroom to real-life situations in the community. In recent years, there has been a growing interest in integrating CSL into higher education training programmes. This paper aims to discuss the research on CSL in art and design higher education. Even though this approach is accepted and already being employed in some South African art and design higher educational programmes, not much has been done to analyse its impact on the curriculum compared to other fields, such as teacher education. As such, this method of teaching and learning has yet to be fully explored in the art and design sector. Some of the challenges for integrating CSL into the curriculum include the placement of community engagement within the academic structures and the limited time available at universities. For the current study, a project brief was developed to assess selected university students' academic and personal experiences towards integrating a community engagement project as part of the curriculum in "a leading South African design education institution". Purposive sampling was used to select 12 students at both the 4th and 5th levels and who were at their exit levels in 2021. Data was collected by means of an online questionnaire that included multiple-choice, open-ended, and Likert scale questions. Feedback from participants shows that integrating CSL in real-life situations enriched and deepened their learning experience. The findings of this study suggest that CSL has potential for exploration and can be an effective tool for personal and academic development for university students.

Keywords: Art and design education, community engagement, community service learning, real-life situations.

Introduction

In recent years, community service learning (CSL) has increasingly been adopted by universities and colleges across diverse fields of study in South Africa. However, despite its significant level of acceptance, there is still much to be learned about its impact on the curriculum and student learning outcomes in different fields of study. One area in which CSL is gaining interest is art and design higher education. As creative fields, art and design provide unique opportunities for CSL that go beyond traditional academic disciplines. For example, students in art and design programmes can engage with

communities to create public art installations, design public spaces, or work with local organisations to address social issues through art and design projects (Grodach 2010). In South Africa, some art and design higher education programmes have already embraced CSL, recognising its potential to enhance students' artistic and civic development. However, not much research has been done to analyse the impact of CSL on the curriculum and student learning outcomes in these programmes compared to other fields, such as teacher education.

One of the key challenges in implementing CSL in the curriculum is the significant time commitment required from students, making it difficult to balance the CSL placement and the heavy workload from other courses, jobs, and family responsibilities (Levkoe, Friendly & Daniere 2020). Art and design institutions thus often face difficulties in effectively integrating community service projects into their programmes due to the diverse demands presented by the curriculum.

To address these issues and examine the impact of CSL on art and design higher education, this study focuses on a leading South African design education institution. The research employs a project brief that evaluates university students' academic and personal experiences related to the integration of a community service-learning project within the curriculum. The study furthermore utilises purposive sampling, selecting 12 students from both the 4th and 5th levels who were at their exit levels in 2021. The students were tasked with creating promotional materials for an organisation, with a focus on addressing gender-based violence in Bloemspruit, a region in Bloemfontein with high rates of such violence. The design materials effectively represented the organisation's identity and were intended for use in programmes and community discussions. In particular, this project was part of a credit-bearing module designed for Communication Design students.

Data for this research was collected using online questionnaires that comprised multiple-choice, open-ended, and Likert-scale questions. By gathering feedback from the participants, the study aims to explore how incorporating CSL in real-life situations enriches and deepens the learning experience for art and design students.

The findings of this study aim to contribute to the body of research on CSL and also to provide valuable insights for future pedagogical practices in the field of art and design education. It is hoped that this can pave the way for further exploration and implementation of this approach, ultimately enhancing the educational experiences of university students and strengthening the connection between academia and the community.

Research question

The primary research question that this research asks is:

- How does CSL affect the curriculum and student learning outcomes in South African art and design higher education programmes?

Literature Review

Introduction

Community service learning (CSL) has become an increasingly popular pedagogical approach in higher education, particularly in the fields of teacher education, medical and nursing disciplines, as well as sociology and criminal justice to mention but a few (Salam, Iskandar, Ibrahim & Farooq 2019). By combining academic learning objectives with community service activities, CSL aims to provide

students with meaningful and authentic learning experiences, while also contributing to the betterment of local communities. However, while the benefits of CSL have been widely documented in teacher education and other fields, relatively little research has been conducted on its impact on the curriculum and student learning outcomes in art and design education, particularly in the context of South Africa. This literature review aims to explore the existing research on the impact of CSL on art and design education in South Africa and identify the key themes and issues that emerge from this body of literature.

Theoretical and pedagogical foundation for CSL

John Dewey's experiential learning

The origins of CSL can be traced to John Dewey's (1859–1952) theory of experience and education way back in the early 20th century when he and other education philosophers emphasised the importance of personal experiential learning and community engagement (Pacho 2015). Dewey's concept, suggests that education should have the power to influence social and political change as well as create democratic communities. This principle aligns with experiential education's viewpoint that knowledge is gained through personal experience (Higher Education Quality Committee 2006, p. 14).

Paulo Freire's critical pedagogy

Educator and philosopher Paulo Freire (1921–1997) played a significant role in shaping the theory of service learning. His concept of critical pedagogy challenges existing norms and power structures through education. According to Freire, education has the potential to transform society by fostering a learning process between students and teachers than a one-sided transfer of information. The principles of service learning, where students actively participate in community service activities aimed at addressing real-world problems align with Freire's theories. Additionally, they critically reflect on their experiences. Consider underlying social and political issues that may exist. This educational approach helps students develop their thinking skills instils a sense of responsibility within them and encourages them to contribute positively towards meaningful societal change. These aspects strongly resonate with Freire's visionary perspective.

Cultural-Historical Activity Theory (CHAT)

Researchers exploring community service learning also recognise the contributions of Paulo Freire alongside John Dewey while emphasising the significance of Cultural-Historical Activity Theory (CHAT). CHAT draws inspiration from Lev S. Vygotsky's ideas – a psychologist from the past century – further enriching the understanding around this field. This theory suggests that our actions are impacted by the cultural environment we are immersed in. Our engagement in cultural activities plays a role in shaping how we think and develop cognitively. In the context of service learning, this theory suggests that engaging in meaningful community service can provide students with opportunities to participate in activities that are relevant to their society and culture, thereby enhancing their learning and personal growth.

A research by Cong-Lem (2022) examines the impact of Vygotsky's Cultural-Historical/Sociocultural Theory (VST) in education. The paper emphasises the confusion that arises from combining VST with other cultural-historical traditions, specifically Aleksei Leontiev's and Yrjö Engeström's versions of Cultural-Historical Activity Theory (CHAT). Three generations of CHAT are identified: the first generation emphasises social interactions, scaffolding, and cultural tools; the second generation

introduces activity systems, highlighting the interplay between individuals, goals, tools, rules, and division of labour; the third generation emphasises collective agency, collaboration, and addressing societal contradictions to foster expansive learning and societal change.

The Intersection between Dewey's Experiential Learning, Freire's Critical Pedagogy, and CHAT

By incorporating these theoretical foundations, CSL aims to promote social responsibility, critical thinking skills, and a commitment to positive social change among students. The combination of Dewey's emphasis on experiential learning, Freire's focus on questioning and transformative education, and Vygotsky's understanding of the social and cultural aspects of human development contribute to the theoretical framework that supports service learning. These foundations enable the design and implementation of CSL programmes that actively involve students in their communities, reflect on their experiences, and contribute to significant societal change (Bringle & Hatcher 1995, p. 112; Jacoby 1996).

Challenges in CSL implementation

1. *Balancing theory and practice:* Although the theories presented above have significantly influenced the development of CSL and are generally accepted for future research, it is important to acknowledge that they also have limitations and have been subjected to various criticisms. One criticism of Dewey's theory is that it can be challenging to implement in practice, particularly in complex educational settings. Miettinen (2000) argues that when considering how we acquire new knowledge about the world, the model of experiential learning is not sufficient. Miettinen (2000) believes that the concept of experience, with its humanistic connection, only serves an ideological purpose by promoting the belief in an individual's natural ability to grow and learn. This aspect of experiential learning makes it especially appealing to adult education theorists and the concept of lifelong learning.

Paulo Freire's pedagogical theory seems to be both captivating and challenging, attracting some while frustrating others. Some of his critics have raised concerns about its practicality and integration into mainstream educational practices. Others have had problems with his utopian ideals (UKEssays 2018), his method, and his simplistic division of oppressor and oppressed. Some argue that his ideas may not be applicable in developed settings and question their relevance within academia (Avoseh 2009, p. 129). It is also interesting to note that some critics have also pointed out issues with Freire's use of language, describing it as clumsy and gender insensitive (Shudak & Avoseh 2015).

2. *Assessment and evaluation:* Reflective learning, as emphasised by Dewey, not only helps individuals gain a better understanding of certain topics but also promotes personal development and empowers them to take meaningful actions in their lives, ultimately contributing to the broader goal of collective liberation (Holdo 2023).

When evaluating the impact of community service learning (CSL) both qualitatively and quantitatively, it is necessary to develop assessment methods that accurately capture both the learning outcomes and the benefits, for the community. For example, in a study conducted by Ash, Clayton, and Atkinson (2005), the intentional link, between evaluating student learning outcomes in service learning and the practice of reflection was explored. These scholars devised a method that utilises students' reflections as data for assessing and enhancing both student learning and broader programme-wide approaches to reflection.

To facilitate this, process two tools were developed to provide guidance to students when writing their pieces. Additionally, rubrics were utilised to evaluate the quality of thinking expressed in these reflections. The findings suggest that these tools have proven effective in enhancing students' higher-order reasoning skills and critical thinking abilities across domains such as

improvement, civic engagement, and personal growth. Consequently, this has led to an enhancement in the quality of their learning experiences. However, the assessment also highlights the importance of making improvements with regard to academic learning outcomes.

3. *Cultural sensitivity*: Batiibwe's (2019) review of Cultural-Historical Activity Theory (CHAT) identified two main concerns. Firstly, there is a lack of clarity between CHAT and Activity Theory, leading to confusion among researchers. Secondly, while CHAT has been used in education research, there is a shortage of papers applying it specifically to mathematics classrooms. Even among the few studies that use CHAT, its full potential remains untapped. The implications of this review for Ugandan teachers stress the significance of fostering active student engagement and creating collaborative spaces to enhance dialogue and interaction during the teaching and learning process.

In addition to these concerns, Rogoff (1990) does not agree with the assumption that CHAT may be universally applicable to all cultures. According to Rogoff, the idea of scaffolding, which heavily relies on verbal instruction, may not be equally effective or relevant in all cultural contexts or for all types of learning. Some cultures may find other methods, such as observation and practice, more effective for acquiring certain skills.

In concluding this section, it is worth mentioning that although these theories have their limitations, they still provide valuable insights and frameworks for understanding and implementing CSL. By combining Dewey's Experiential Learning, Freire's Critical Pedagogy and CHAT in CSL, there is potential for crafting experiences that can bring about meaningful transformations. Addressing the challenges and adapting the theories to specific contexts can help educators and researchers effectively leverage CSL to promote meaningful learning experiences and positive social change.

Research on CSL in higher education

Several studies have investigated the impact of CSL on student learning outcomes in art and design education. A study by Pacho (2019), for example, highlights the importance of service learning as a transformative pedagogy that can ensure that learners are well prepared for the labour market and for the transformation of society. According to Pacho, the key components of service learning are service to the community, reflective practice, and learning from experience.

Resch and Schritteser (2021) found that teacher educators play both expert and supportive roles and recognise multiple benefits of service learning. Their study, which examines the application of service learning in Austrian teacher education, indicates that teacher educators distinguish between five orientations in CSL, namely connecting theory and practice, engagement, community needs, job-related skills, and learning outside the classroom. The authors emphasise the significance of service learning in promoting inclusive education and preparing pre-service teachers to address the challenges posed by diverse student populations by providing opportunities to engage with real-world problems in schools.

Cloete and Erasmus (2012) conducted a study that showcases the effective integration of service learning in music programmes within higher education. They specifically focused on the capstone service-learning module of the University of the Free State's Odeion School of Music as an exemplary model for other arts and humanities programmes. The module is described as a clear and structured approach to community engagement, promoting goal-oriented participation. The authors argue that it is crucial for higher education programmes to improve their responsiveness to the distinct challenges and opportunities of a world that frequently lacks empathy and compassion.

Service learning in art and design education: Challenges and limitations

Although service learning has been recognised as a transformational pedagogical practice that offers immense potential for higher education, its institutionalisation in the academy has nonetheless been hindered by pedagogical, political, and institutional challenges, as rightly noted by some scholars. Butin (2006) argues that service learning faces significant limitations that may require a reframing of its assumptions and practices to allow for a more authentic institutionalisation. Thus, understanding the limits of service-learning institutionalisation and critically examining its assumptions may be crucial for advancing its implementation and impact in art and design education.

Implementing CSL in art and design education can pose unique challenges, a given which may be particularly true for South Africa. A research project by Westraadt (2018) highlights the challenges faced by fourth-year Bachelor of Education students specialising in Art Education with practical teaching experience, including teaching art to children from a children's home, managing difficult behaviour, and emphasises the importance of effective classroom management in an art setting. The project aimed to address the limited time for teaching art during student placements. Despite the challenges, the project benefited all parties involved, fostering the holistic development of the children, and facilitating the students' growth as educators. The project demonstrated the practical aspects of art education and had a lasting impact on everyone involved.

Yet another challenge relates to proper communication and interaction between all the involved parties, i.e., with reflection and learning taking place between students, instructors, and community members (Toporek & Worthington 2014). These researchers assert that when third parties are involved in the service-learning initiatives, it might be challenging to maintain adequate communication and engagement between all three parties.

Furthermore, for CSL projects to operate effectively, funding and resources are needed. Academic institutions may find it difficult to sustain these projects over a longer period of time without financial assistance (Salam et al. 2019). This can be due to the lack of funding for the personnel, materials, and resources to support the project. It may also be a challenge for students to commit to service-learning projects particularly if they must work to support themselves financially (Salam et al. 2017). Additionally, lack of funding may also affect the community partners involved in the service-learning project as well since they may need resources and support to fully participate. As a result, securing financial assistance is critical for the successful execution and sustainability of service-learning initiatives in academic institutions.

The adoption of an appropriate model of service

The brief background presented above indicates that in order to integrate community service and civic engagement into the formal structures and practices of higher educational institutions for art and design education, a critical examination of its assumptions and practices, as well as an understanding of the unique challenges in this field are necessary. Although this teaching method may provide significant benefits to students, it can also present some considerable challenges as well. These include issues with incorporating it into the curriculum, ethical concerns, and effective communication among students, instructors, and community partners. For CSL to be successful and sustainable, it is crucial to have sufficient financial support and conduct thorough evaluations of its impact.

Methodology

Data collection

The purpose of this research was to assess how CSL affects the curriculum and the learning outcomes of students. The study employed a mixed methods approach primarily relying on case studies conducted online. There were 12 communication design students who were (at their exit levels in 2021 from both the fourth and fifth levels) purposively selected as participants.

Data was collected through a survey that covered aspects such as participants' background information, their perspectives and experiences with the project and the impact of the artworks created for the campaign. The survey utilised a combination of multiple-choice questions ended inquiries and Likert scale measures as data collection tools. Multiple-choice questions aimed to gather data on students' previous experience to CSL, their perceptions regarding its influence on their learning outcomes, as well as challenges and opportunities related to incorporating CSL into the curriculum. Open-ended questions were used to collect qualitative data on students' perceptions of the benefits and limitations of using CSL in art and design education along with suggestions, for improvement. Finally, Likert scale questions were chosen as they are widely utilised to gauge attitudes and perceptions (Likert 1932). These questions were employed to evaluate the extent to which students agreed or disagreed with statements regarding the influence of CSL on their achievements.

Ethical considerations

1. *Informed consent:* Although a formal ethical clearance was not obtained, all participants were informed about the data collection process, its purpose, and the intended use of the data. The participants were assured that their responses would remain confidential.
2. *Protection of participant rights:* Safety precautions and measures were also considered to protect the rights and privacy of participants, ensuring that their responses would be kept anonymous and in a way that maintains their confidentiality.
3. *Justification for exemption:* The reason not to seek ethical clearance was that the data collection was primarily for the improvement modules involved, and that it did not involve any vulnerable populations or sensitive information.

Data analysis

The collected data was then analysed using descriptive statistics to determine the advantages and disadvantages of integrating community service learning (CSL) into the curriculum and its influence, on students' learning outcomes. The choice to use descriptive statistics was influenced by a small sample size, which was insufficient to draw valid conclusions or generalise findings to a larger population. However, descriptive statistics allowed us to summarise and analyse the available data. This also enabled a better understanding of the students' opinions on CSL and how it influenced their academic learning experiences.

For all items in the survey, responses ranged from one to five. The total score for the scale items was then calculated; means and standard deviations were calculated for each of the items in the questionnaire. The results were presented in a histogram.

The results

Response rate

In this study, 12 students were purposely selected to participate. However, only six of them completed the questionnaire, thus resulting in a response rate of 50%. In total, out of the six completed questionnaires, all were participants at postgraduate diploma level (compare Figure 1 below). Out of the 12, two participants did not complete the questionnaire in its entirety while four chose not to respond to the questionnaire at all. Given the fact that the completion of the questionnaire was voluntary, some participants must have felt that they were not bound to complete it or even to provide any input or feedback. Evidently, this voluntary nature of the questionnaire had a decisive influence on the response rate. This is believed to be one of the reasons behind the lower response rate and strongly indicates that participant choice played a significant role in the incomplete or non-responses recorded.

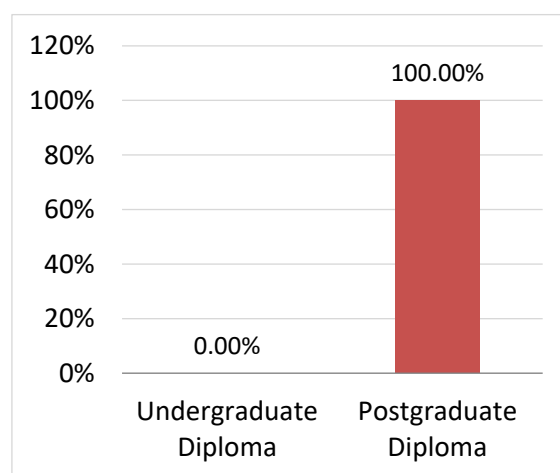


Figure 1: Response rates of participants across educational levels

To gain a better understanding of the participants' views, experiences, and perceptions of the campaign and the artworks, a more detailed account of the descriptive statistics will now follow:

It is noteworthy that the majority of respondents were male, accounting for 83.33% of the total population, while the remaining 16.67% were female. This gender distribution sheds light on the demographic composition of the participants.

Examining the participants' work and study patterns, approximately 50% of the respondents reported juggling their studies with 20 or more hours of work per week. This highlights the significant proportion of individuals who maintain an active work schedule alongside their educational commitments. In terms of study mode, the most common approach was a combination of on-campus and online learning, which was preferred by 66.67% of the participants.

Moving on to the community engagement aspect, on average, respondents had completed 1.833 community engagement projects throughout their studies. This figure provides an indication of the level of involvement and commitment to community-oriented initiatives demonstrated by the participants.

When inquiring as to the aspects they enjoyed the most in the project, respondents cited several factors. Half of the participants expressed appreciation for the presence of clear responsibilities,

emphasising the importance of well-defined roles within the project. Additionally, 25% of the respondents found great satisfaction in witnessing the project come to life, indicating their enthusiasm for seeing their efforts materialise. Furthermore, 12.50% of the participants valued the online meetings and interactions they had with clients, recognising the benefits of virtual communication.

Moving on to the ratings of the CSL Project, the project received consistently high average scores across various dimensions. As demonstrated in Figure 2, participants reported positive experiences in terms of educational value, with an average score of 4.333. The project was also deemed beneficial to academic learning, as indicated by an average score of 4.667. In terms of professional interest, personal interest, quality of work completed, and understanding of clients' needs, the project received average scores of 4.333, 4.167, 4.667, and 4.333 respectively. The ratings presented above indicate that the participants were generally satisfied with the project and its impact on their academic and professional development.

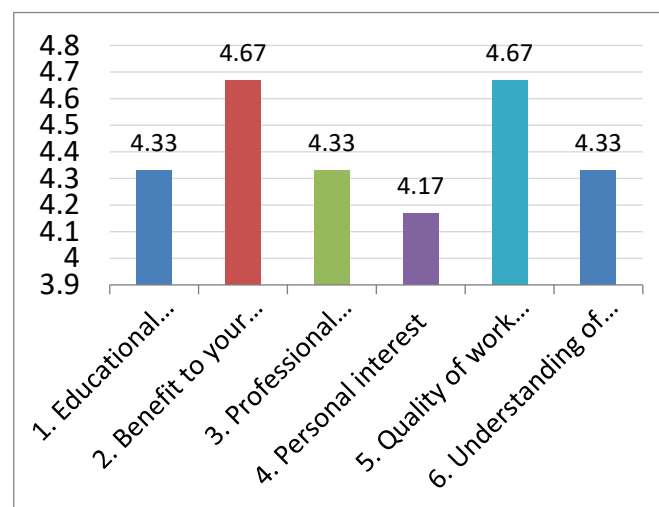


Figure 2: Participants' satisfaction ratings on academic and professional development

In terms of the participants' readiness to communicate and collaborate with clients in their chosen career path, the majority (66.67%) indicated that they were very likely to do so. This demonstrates their sense of readiness and confidence for their career aspirations.

When reflecting on the challenges faced during the project, a few common issues were noted by the participants. These included having to work with a logo of low quality, delays in obtaining information that must be included in the pamphlet and other promotional materials. These challenges shed light on the issues that emerged throughout the project.

Lastly, participants shared their recommendations for making improvements. They expressed a need for more challenging design work, indicating a desire for opportunities to enhance their skills and tackle complex projects. They also mentioned the importance of gaining experience in different environments, showing a desire for diverse learning experiences. Improved time management was another area highlighted for enhancement, indicating that participants recognised the value of efficient project coordination.

While the descriptive statistics offer valuable insights into the participants' perspectives, it is essential to acknowledge the limitations imposed by the small sample size. Due to the relatively small number of participants, the generalisability of these findings is limited, and caution should be exercised when applying them to broader populations or contexts.

Discussion

The findings from this study shed some light on students' perceptions of CSL and its impact on learning outcomes, as well as students' confidence in commencing work in their field of study. The positive ratings and enjoyment of various aspects of the project indicate that CSL has the potential to enhance students' academic and professional development. However, challenges such as low-quality visuals provided by the client and time management issues should be addressed to improve the overall CSL experience. The suggestions provided by the students offer valuable insights for curriculum integration and pedagogical enhancements. These findings contribute to the growing body of knowledge on CSL.

Based on the data collected, it is evident that community service learning (CSL) programmes have a positive impact on students' perceptions and experiences. Most students (80%) mentioned that participating in the Re ya Aha Foundation project helped them to be aware of the community issues and increased their sense of social responsibility. This shows that community service learning (CSL) programmes effectively involve students in community service and contribute to their personal and professional growth.

In addition, when students were asked about the opportunity to interact and work effectively with clients in their future careers, a significant number (67%) said that the Re ya Aha Foundation project greatly enhanced this aspect. This indicates that CSL programmes not only provide valuable experiences in community engagement but also improve students' skills in dealing with clients and communicating professionally.

While the overall perception of the project was positive, some students did encounter certain challenges. These included issues like low-quality logos, delays in logo delivery, and difficulties with managing time effectively. These challenges provide insights for improvement, such as ensuring high-quality project assets and enhancing time management support.

In terms of students' confidence in commencing work in their field of study, the data revealed that a significant majority (83%) felt very confident, indicating that the Re ya Aha Foundation project had positively influenced their readiness to enter their chosen careers.

In addition to the above, it is important to note that when evaluating the outcomes of the CSL initiative, it is crucial to correlate them with the fundamental theories and educational principles that serve as the basis for community service learning. It does seem like the combination of Dewey's experiential learning, Freire's critical pedagogy, and Vygotsky's Cultural-Historical Activity Theory provides a solid framework for designing and implementing CSL programmes that actively engage students with their communities, promote reflection on their experiences, and contribute to meaningful societal change.

However, it is worth acknowledging that these theories do have their limitations. Critics have expressed their concerns about the practicality and application of Dewey's theory, the language usage and idealistic nature of Freire's pedagogy and the cultural limitations of Vygotsky's Activity Theory. It is essential to take these criticisms into account when developing CSL programmes and tailoring the theories to situations.

Conclusion

In summary, the results of this study indicate that community service learning (CSL) initiatives, like the CSL project discussed here can effectively improve students understanding of community issues and

foster a sense of responsibility. These programmes also offer students hands-on experience with clients, boosting their confidence as they begin their careers and fostering an entrepreneurial mindset. However, it is important to acknowledge and address challenges such as resources and time management that may arise during these projects. By addressing these challenges, we can enhance the student experience and outcomes of CSL initiatives.

While CSL shows promise in education, its integration into art and design programmes requires an examination of its underlying principles and methods. It is crucial to be mindful of the challenges within this field to ensure implementation.

Limitations and future considerations

It is acknowledged that the descriptive statistics provide insights into the participants' views, experiences, and perceptions of the campaign and the artworks. However, it is important to note that the small number of participants limits the extent to which these findings can be applied to a larger group. Further research with a larger and more diverse sample to confirm and expand upon these findings is therefore recommended. However, these observations provide helpful insights for understanding the influence of CSL on higher education programmes in art and design in South Africa.

Another limitation that this study encountered was the limited budget of the non-governmental organisation (NGO) and the absence of established partnerships. Although the students were able to contribute their design knowledge and abilities, a lack of funding prevented the project's objectives from being fully realised. This posed a challenge in securing sufficient funds to cover the expenses for the printing service and printing of the promotional material. It emphasises the importance of having funding sources and partnerships for community engagement initiatives for newly established organisations with limited resources.

Lastly, due to the COVID-19 pandemic lockdown regulations, it was not possible for the students to meet the client face to face. Instead, a virtual meeting was arranged a meeting for a briefing session. However, this also presented some difficulties such as issues, limited client involvement and interaction and the absence of connections typically found in face-to-face meetings. It is believed that these challenges might have made it challenging for some students to fully comprehend the client's objectives, expectations, and preferences due to the lack of in-person communication.

References

- Ash, SL, Clayton, PH & Atkinson, MP 2005, 'Integrating reflection and assessment to capture and improve student learning', *Michigan Journal of Community Service Learning*, vol. 11, no. 2. pp. 49-60.
- Avoseh, MB 2009, *Paulo Freire's humanism and the challenges of 21st century adult education*, Rocznik Andragogiczny.
- Batiibwe, MSK 2019, 'Using cultural historical activity theory to understand how emerging technologies can mediate teaching and learning in a mathematics classroom: a review of literature', *Research and Practice in Technology Enhanced Learning*, vol. 14, no. 1, pp. 12.
- Bringle, RG & Hatcher, JA 1995, 'A service-learning curriculum for faculty', *Michigan Journal of Community Service Learning*, vol. 2, pp. 112-122.
- Butin, D 2006, 'The limits of service-learning in higher education', *Review of Higher Education*, vol. 29, no. 4, pp. 473-498.

- Cloete, E & Erasmus, M 2012, 'Service learning as part of tertiary music programmes in South Africa: a framework for implementation', *Journal of the Musical Arts in Africa*, vol. 9, no. 1, pp. 1-22.
- Cong-Lem, N 2022, 'Vygotsky's, Leontiev's & Engeström's cultural-historical (activity) theories: Overview, clarifications and implications', *Integrative Psychological and Behavioral Science*, pp. 1-22.
- Grodach, C 2010, 'Art spaces, public space, and the link to community development', *Community Development Journal*, vol. 45, no. 4, pp. 474-493.
- Higher Education Quality Committee (HEQC) 2006, *Service-learning in the curriculum: a resource for higher education institutions*, Council on Higher Education, Pretoria.
- Holdo, M 2023, Critical reflection: John Dewey's relational view of transformative learning, *Journal of Transformative Education*, vol. 21, no. 1, pp. 9-25.
- Jacoby, B 1996, 'Service learning in today's higher education', in B Jacoby (ed.), *Service-learning in higher education: concepts and practices*, San-Francisco, Jossey-Bass.
- Levkoe, CZ, Friendly, A & Daniere, A 2020, 'Community service-learning in graduate planning education', *Journal of Planning Education and Research*, vol. 40, no. 1, pp. 92-103.
- Likert, R 1932, 'A technique for the measurement of attitudes', *Archives of Psychology*, vol. 22, no. 140, p. 55.
- Miettinen, R 2000, 'The concept of experiential learning and John Dewey's theory of reflective thought and action', *International Journal of Lifelong Education*, vol. 19, no. 1, pp. 54-72, <<https://doi.org/10.1080/026013700293458>>.
- Pacho, T 2019, 'Service-learning: an innovative approach to education in Africa', in JK Mugo, P Namubiru-Ssentamu & M Njihia (eds), *The good education & Africa's future: concepts, issues and options*, Nairobi, Paulines Publications Africa, pp. 232-259.
- Resch, K & Schrittmesser, I 2021, 'Using the Service-Learning approach to bridge the gap between theory and practice in teacher education', *International Journal of Inclusive Education*, pp. 1-15.
- Rogoff, B, 1990, *Apprenticeship in thinking: cognitive development in social context*, Oxford University Press.
- Salam, M, Iskandar, DNA & Ibrahim, DHA 2017, 'Service learning support for academic learning and skills development', *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, vol. 9, no. 2-10, pp. 111-117.
- Salam, M, Iskandar, DNA, Ibrahim, DHA & Farooq, MS 2019, 'Service learning in higher education: a systematic literature review', *Asia Pacific Education Review*, vol. 20, no. 4, pp. 573-593, <<https://doi.org/10.1007/s12564-019-09580-6>>.
- Shudak, NJ & Avoseh, MB 2015, 'Freirean-based critical pedagogy: the challenges of limit-situations and critical transitivity', *Creative Education*, vol. 6, no. 4, p. 463.
- Taylor, A 2014, 'Community service-learning and cultural-historical activity theory', *Canadian Journal of Higher Education*, vol. 44, no. 1, pp. 95-107.
- Toporek, RL & Worthington, RL 2014, 'Integrating service learning and difficult dialogues pedagogy to advance social justice training', *Counseling Psychologist*, vol. 42, no. 7, pp. 919-945.
- UKEssays, November 2018, *Paulo Freire's critical pedagogy lecture*, viewed 10 June 2023 <<https://www.ukessays.com/lectures/education/approaches/critical-theory/?vref=1>>.
- Westraadt, G 2018, 'Service-learning through art education', *South African Journal of Childhood Education*, vol. 8, no. 1, pp. 1-8.