

Enhancing societal impact through University–Community Engagement: Opportunities and challenges at the University of Ghana Learning Centres

Journal of Adult and Continuing Education

2025, Vol. 0(0) 1–25

© The Author(s) 2025

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/14779714251352628

journals.sagepub.com/home/ade



Abigail A Aryeh-Adjei 

Department of Adult Education and Human Resource Studies, University of Ghana, Ghana

Abstract

Universities collaborate with communities to address various societal issues, enhancing societal well-being and development. However, there are issues that prevent both parties from fully achieving this goal. This study thus explores the opportunities and challenges of University–Community Engagement (UCE) at the University of Ghana Learning Centres (UGLCs) using a qualitative research design. Employing purposive sampling, data was collected through semi-structured interviews with the head, 8 coordinators, and 3 students/community members across various UGLCs and analyzed using thematic analysis, underpinned by balance theory. The findings revealed significant opportunities for UGLCs, including image promotion, economic development, and professional networking among students. However, challenges such as funding shortages and administrative barriers were identified. Students also faced additional challenges, including high internet expenses, computer illiteracy, and limited contact hours with lecturers. To maximize the benefits of UCE at the UGLCs, it is crucial to address these challenges. UGLC policies and practice should focus on securing additional funding through government grants, private sector partnerships, and philanthropic contributions to address funding shortages, and subsidize internet costs by partnering with telecommunications. This is important for enhancing the effectiveness of UCE and providing significant benefits to both the university and its surrounding communities/students.

Corresponding author:

Abigail A Aryeh-Adjei, Department of Adult Education and Human Resource Studies, University of Ghana, LG 31, Legon, Accra, Ghana.

Email: aaryeh-adjai@ug.edu.gh

Keywords

Balance theory, challenges, opportunities, societal issues, University–Community Engagement (UCE), University of Ghana Learning Centres (UGLCs)

Introduction

UCE is a dynamic and reciprocal partnership that leverages the resources and expertise of higher education institutions to address societal challenges and foster community development. These engagements have become a pivotal strategy for higher education institutions aiming to enhance their societal impact. The approach fosters reciprocal relationships between universities and their surrounding communities, promoting mutual growth and development (Koekkoek et al., 2021).

The 2014–2024 Strategic Plan of the University of Ghana has captured UCE, as its impact is very essential in this era. The fourth strategic priority focusses on the importance of engagement and partnerships grounded in mutual respect, which catalyzes innovation, reinvigorates its practices, and amplifies its influence (University of Ghana, 2014). At the University of Ghana Learning Centres (UGLCs), this engagement is particularly significant as it extends the university's reach across the nation, promoting educational access and community development in diverse regions. The centres play a crucial role in this engagement, offering various programmes that address community needs and support lifelong learning (Agyekum & Amponsah, 2024). The centres are in all the former ten administrative regions of Ghana such as Accra, Kumasi, and Tamale and serve as hubs for Distance Education (DE), professional development, and community service, thereby enhancing the university's societal impact (University of Ghana, 2023b).

Opportunities presented by UCE at these centres are manifold. They include the potential for collaborative research, the development of tailored educational programmes that meet local needs, and the promotion of lifelong learning, enhanced educational outcomes, and community development (Grau et al., 2017). Such initiatives not only benefit the community but also enrich the academic experience of students and faculty by providing real-world contexts for learning and research (Clifford & Petrescu, 2012). However, these opportunities come with challenges, such as the need for sustainable funding, the management of diverse stakeholder interests, and the integration of community engagement into the university's core mission, resource constraints, varying community expectations, and the need for sustainable partnerships (Goddard et al., 2016; Wallerstein et al., 2015).

Though there have been various studies of opportunities and challenges on UCE globally (Holland, 2016; Muwanguzi et al., 2023; O'Meara, 2018; Saltmarsh & Hartley, 2011; University Engagement with the Community, 2020; Watson, 2014), empirical studies in Ghana are not much (Mwingyine et al., 2014; Tanko, 2016) and particularly that of UGLCs have not been adequate (Tagoe, 2014). This study is timely as there is scarcity of empirical research focussed specifically on the opportunities and challenges of UGLCs. In addition, previous studies have not adequately captured the views and experiences of diverse stakeholders, including the head, centre coordinators, and community members/

students. This research would benefit from a more comprehensive inclusion of these diverse participants. Engaging with various stakeholders would provide a more holistic view of the opportunities and challenges, making it context specific. Lastly, research may not have fully investigated how the UGLCs address specific societal challenges in Ghana, such as unemployment and education. Thus, this study focussed on these two objectives: to examine the opportunities associated with UCE from both the UGLCs and the surrounding communities/students' perspectives in promoting societal impact and secondly to examine the challenges faced by UCE in both the UGLCs and the surrounding communities/students. In meeting the objectives, these research questions were asked: What are the opportunities associated with UCE from the UGLCs and the surrounding communities/students' perspectives in promoting societal impact? What are the challenges faced by UCE in the UGLCs and the surrounding communities/students?

This study will add to the existing literature on UCE, highlighting the opportunities and challenges of UGLCs which will provide insights for improving existing initiatives and developing new ones, and ultimately helping universities and communities work together more effectively to address societal challenges. In addition, the findings of this study can inform policy and practice in UCE, informing resource allocation decisions, ensuring that investments in UCE are targeted and effective both locally and internationally.

Literature review

UCE has gained significant attention globally, driven by the need for higher education institutions to contribute to societal development (Brown-Luthango, 2012; Farnell et al., 2020). The literature review will focus on the opportunities, challenges faced by UCEs, and the UGLCs and their societal impact.

UCE represents a powerful avenue for fostering mutually beneficial partnerships that address societal challenges, enhance social responsibility, and support sustainable development. The potential of community engagement to transform higher education and create meaningful partnerships is worth noting (Holland, 2016) as universities can leverage community engagement to drive social change and innovation (Saltmarsh & Hartley, 2011). Globally and within the Ghanaian context, UCE offers opportunities to integrate academic research, teaching, and service with community needs. This discussion explores these opportunities while highlighting the contributions of Bhagwan (2018), Rojas (2024), and Tshishonga (2022) in this regard. Other studies related to UCE and associated opportunities have also been discussed.

UCE promotes partnerships that create meaningful collaborations between universities and communities at an international level. According to Rojas (2024), these engagements enable universities to leverage academic resources and community insights to address critical societal challenges. Such partnerships contribute to the common good by promoting social accountability and transformational change. Similarly, Bhagwan (2018) underscores the value of these engagements in the co-production of knowledge, lifelong learning, and active citizenship. Bhagwan's emphasis on collaborative processes ensures that academic work remains grounded in real-world contexts, breaking down traditional

academic silos. [Tshishonga \(2022\)](#) extends this discourse by highlighting the potential of UCE to build socially inclusive knowledge systems. [Tshishonga \(2022\)](#) argues that UCE provides a platform for merging indigenous knowledge with scientific insights, creating a robust foundation for tackling complex social issues. His contributions underscore the importance of participatory methods that empower communities to co-own development projects, ensuring long-term sustainability.

The development of comprehensive evaluation frameworks is another critical global opportunity in UCE. [Rojas \(2024\)](#) advocates for integrative methodologies that combine quantitative and qualitative tools, such as data envelopment analysis (DEA) and socially modified economic valuation (SMEV). These frameworks capture both tangible and intangible impacts, offering a nuanced understanding of the outcomes of UCE initiatives. [Tshishonga \(2022\)](#) complements this by emphasizing the need for culturally relevant evaluation metrics that reflect the unique dynamics of community–university collaborations. The contributions of [Rojas \(2024\)](#), [Bhagwan \(2018\)](#), and [Tshishonga \(2022\)](#) collectively provide a comprehensive understanding of the opportunities, processes, and evaluation frameworks associated with UCE. For Ghanaian universities, prioritizing UCE can significantly enhance their social responsibility and support national development, making it a cornerstone of higher education strategy.

UCE presents a unique opportunity for universities to address local challenges while enhancing their social responsibility. [Bhagwan \(2018\)](#) argues that Ghanaian universities can leverage UCE to tackle pressing issues in health, education, and economic development. Such initiatives align with global trends and enhance the international reputation of these institutions. Thus, through the promotion of mutually beneficial collaborations, universities can empower communities, value indigenous knowledge, and support national development goals. [Tshishonga \(2022\)](#) offers additional insights into how UCE can enhance social accountability within the Ghanaian context. His work highlights the role of universities in fostering community participation and promoting transdisciplinary research. Another study focussed on how community service-learning at the University of Ghana has transformed teaching and learning, emphasizing the positive perceptions of students towards community engagement ([Tagoe, 2014](#)). By integrating diverse knowledge systems, Ghanaian universities can generate innovative solutions to local problems. These engagements also contribute to building trust between academic institutions and communities, ensuring that partnerships are sustainable and impactful.

According to [Jacoby \(2003\)](#), UCE enhances learning experiences of students. Students gain practical, hands-on experience by working on real-world problems, which enriches their academic learning and better prepares them for their future careers. In addition, collaborating with communities can lead to innovative research projects, the co-creation of knowledge, that address local issues. This can result in new knowledge and solutions that benefit both the academic and local communities (Mc Nall et al. (2009) in [Bakar et al., 2019](#)). There are opportunities for students to engage in community-driven changes through internships and collaborative learning experiences. There are yet other opportunities of community engagement in transforming higher education, emphasizing experiential education, entrepreneurial training, and ethical leadership ([Global Engagement Studies Institute, 2025](#)).

Conversely, [Strier \(2011\)](#) postulated that UCE can stimulate local economies through initiatives like workforce development, entrepreneurship programmes, and urban renewal projects. This is not far from what is happening here in Ghana, as the UGLCs provide training programmes in such areas as well. Universities can share their expertise and resources with the community, while also learning from the community's local knowledge and experiences. This exchange can lead to more effective and relevant outcomes ([Bringle & Hatcher, 2002](#)).

Lastly, these engagements can create valuable networks between universities, local businesses, government agencies, and non-profits. These partnerships can lead to further opportunities for collaboration and funding ([Holland, 2005](#)). Thus, universities can play a significant role in addressing social issues such as inequality, public health, and environmental sustainability. By working with communities, they can help create positive social change ([Sandmann, 2008](#)). Another opportunity worth mentioning is that these engagements can foster a sense of civic responsibility and community involvement among students and faculty, encouraging them to contribute to the public good ([Jacoby, 2003](#)).

Ongoing discourse on UCE reflects a broad spectrum of challenges that highlight the critical need for aligning academic institutions with societal needs, particularly in the Ghanaian context. Numerous studies have unveiled the obstacles faced by universities in establishing and maintaining effective community partnerships ([Strier, 2014](#)) highlighting the countless challenges and complexities involved in community engagement initiatives within higher education ([O'Meara, 2018](#)). Through various studies, researchers have emphasized the institutional, structural, and socio-economic barriers that hinder effective community engagement while proposing strategies to enhance collaboration and impact.

Regarding institutional barriers, [Tshishonga \(2022\)](#) contends that universities often prioritize research over meaningful community engagement, resulting in superficial commitments to community interaction. This misalignment creates a disconnect between academic missions and societal impact, with institutions focussing more on achieving academic milestones than fostering practical community partnerships. Such tendencies undermine the broader purpose of higher education, which is to serve as a catalyst for social transformation. [Nchu \(2024\)](#) also identifies bureaucratic inertia and inadequate policies as significant impediments to the adoption of community engagement and service-learning (CE&SL) initiatives in African universities. The mismatch between university curricula and the skills demanded by the job market further exacerbates this issue, particularly in Ghana, where curricula are often unresponsive to local needs. Similarly, [Ogunsanya and Govender \(2019\)](#) focussed on the different ways of establishing sustainable university–community relationships, emphasizing the tensions that arise from differing institutional and community expectations.

The emphasis on rote learning and examination-driven curricula in Ghanaian universities, as noted by [Gorni et al. \(2024\)](#), limits students' critical thinking and problem-solving skills, thereby weakening the potential for meaningful community engagement. [Cobbold \(2017\)](#) points out the challenges of transitioning theoretical frameworks into practical classroom applications, attributing failures to inadequate pre-implementation preparations and a lack of stakeholder involvement. These challenges reveal a need for

curricula that are not only academically rigorous but also contextually relevant and community centred. High graduate unemployment rates in Ghana, as discussed by [Nchu \(2024\)](#), further highlight the disconnect between higher education and community needs.

[Ogunsanya and Govender \(2019\)](#) argue that these challenges, compounded by limited resources and infrastructure, impede the institutionalization of community engagement practices. Ensuring that projects have a lasting impact and are not just short-term initiatives can be difficult, especially when funding and resources are limited ([Bringle & Hatcher, 2002](#)). Both universities and communities may face constraints in terms of time, funding, and personnel, which can hinder the progress and sustainability of engagement projects ([Sandmann, 2008](#)). [Hollister et al. \(2012\)](#) posited that universities need strong financial sources to conduct social responsibilities activities.

Another major challenge has to do with the fact that universities often hold more power and resources compared to community partners, which can lead to imbalances in decision-making and influence ([Bringle & Hatcher, 2002](#)). There is also a trickledown effect on trust issues between universities and surrounding communities. Building trust takes time, and past negative experiences with similar initiatives can make communities wary of new engagements ([Stoecker, 2005](#)).

In addition, effective communication is crucial, but differences in language, jargon, and communication styles between university staff and community members can create misunderstandings ([Boyer, 1996](#)). Nonetheless, diverse cultural backgrounds and values can affect how university initiatives are perceived and accepted by the community ([Strier, 2011](#)). Also, a study by [Holland \(2005\)](#) revealed that the academic calendar of universities can limit the availability of university staff and students, making it challenging to maintain consistent engagement throughout the year.

The challenges of UCE in Ghanaian higher education are multifaceted, stemming from institutional attitudes, structural barriers, socio-economic constraints and lack of resources to address the unique problems that face universities and meet learners' service demands ([Berry & Hughes, 2020](#); [Kirkup, 2014](#)). Addressing these issues requires a paradigm shift towards inclusive and participatory engagement models that align academic curricula with community needs. In addition, implementing supportive policies, providing training, and securing funding can enhance UCE by overcoming institutional barriers and resource constraints. Also, leveraging technology, building strong partnerships, and regularly evaluating outcomes can improve the efficiency and impact of these initiatives.

University of Ghana Learning Centres (UGLCs) and their societal impact

UGLCs have multifaceted functions and have been designed to meet the educational and developmental needs of both students and communities, aligning with the university's mission of inclusivity and societal engagement. It has opened doors for all potential students who might have been prevented from receiving formal education due to various external and internal circumstances.

Strategically located in all the former 10 administrative regions of Ghana: Accra and Tema, Bolgatanga, Cape Coast, Koforidua, Kumasi, Sekondi/Takoradi, Sunyani, Tamale, Tsito/Ho, and Wa. These centres ensure accessibility for diverse populations ([University of Ghana, 2022](#)) with approximately 12,446 students enrolled ([University of Ghana, 2023a](#)) in DE. The centre is managed by a head at the main Legon campus and senior faculty members with PhDs known as centre coordinators in various regions. They are supported by administrators, organizers, IT officers, and other staff. Many learning centres are equipped with state-of-the-art computer labs, video conference rooms, and smart classrooms.

One of the main functions of the UGLCs is to support DE students by offering tutorials and academic assistance. These services are available to both diploma and degree students, ensuring that those studying remotely receive the necessary guidance to succeed. Prior to 2014, all courses at the UGLCs were conducted in person. However, starting in 2014, a hybrid model was introduced, which combined online learning (via the Sakai LMS) with in-person tutorials on weekends to enhance student interaction with peers and tutors. Due to the COVID-19 lockdowns in March 2020, all courses were transitioned entirely online, including various exam formats. Following the pandemic, the blended learning approach has been maintained.

Additionally, the centres offer continuing professional development programmes aimed at equipping youth and adults with relevant skills and knowledge. These programmes promote lifelong learning and help individuals remain competitive in evolving professional landscapes. UGLCs are suitable for literacy and basic skills, continuing education, vocational skills, liberal, popular, and community education, as well as citizenship skills, all of which contribute to lifelong learning.

Community engagement is a cornerstone of the centres' activities. Through organized service projects and other initiatives, they actively collaborate with local populations to tackle societal challenges and foster mutual growth. UCEs can address various societal challenges, including public health, education, economic development, environmental sustainability, social inequality, and cultural preservation ([Oaks et al., 2009](#)). These initiatives leverage university resources and expertise to improve community well-being and foster sustainable development. These engagements reflect the university's commitment to societal impact, creating opportunities for meaningful partnerships between academia and local communities. In essence, the UGLCs serve as hubs of educational excellence and community empowerment ([University of Ghana, 2022](#)). Their diverse functions not only extend the university's reach but also reinforce its commitment to inclusive education, professional development, and community engagement across Ghana.

Theoretical review

The study was underpinned by balance theory, developed by social psychologist Fritz Heider in 1946. It explains how people strive for cognitive consistency in their attitudes and perceptions, particularly in triadic (three-element) interpersonal relationships ([Heider, 1946](#)). The theory uses a model known as the P-O-X model, where P represents the

person, O represents another person, and X represents a third element, which could be another person, an object, an idea, an activity, or an event. According to balance theory, relationships are balanced when the product of the sentiment (positive or negative) among the three elements is positive. For example, if you like a friend (P likes O) and both of you like a particular activity (P and O both like X), the relationship is balanced. However, if you like the activity but your friend does not (P likes X, but O dislikes X), the relationship is imbalanced, creating psychological discomfort. To restore balance, individuals may change their attitudes or perceptions. For instance, you might decide that the activity isn't as great as you thought, or you might try to convince your friend to like the activity (Heider, 1946).

Balance theory helps explain why we prefer relationships and situations that maintain harmony and agreement, and it has applications in various fields, including marketing, where it can explain how celebrity endorsements influence consumer attitudes (Kovács et al., 2024). For this study, the theory explains the relationships between the university (P), the community (O), and the engagement activities or programmes (X). For instance, if the university values community engagement (P likes X) and the community also values the university's involvement (O likes X), the relationship is balanced. However, if the community feels neglected or undervalued (O dislikes X), the relationship becomes imbalanced, leading to potential disengagement, conflict, or challenge (Heider, 1946).

Secondly, the theory analyzes how different stakeholders (e.g. students, faculty, and community members) perceive and interact with engagement initiatives. For example, if students and faculty both support a particular community project (P and O both like X), the initiative is likely to be more successful. These projects could be opportunities that both parties could leverage on and enjoy the benefits mutually. Conversely, if there is a misalignment in perceptions (e.g. students support the project, but faculty do not), efforts may need to be made to restore balance by addressing concerns and fostering mutual understanding (Heider, 1946).

Lastly, the theory guides strategies for resolving conflicts (these conflicts could be challenges faced by both parties) that arise in UCEs. By identifying imbalances in perceptions and attitudes, university faculty and administrators can take steps to realign interests and restore harmony. For example, if community members feel that their needs are not being adequately addressed, the university can engage in dialogue and adjust its programmes to better meet those needs, thereby restoring balance (Heider, 1946).

Research has shown that UCEs often face paradoxical tensions and inherent contradictions, which can be understood through the lens of balance theory. For instance, when universities and communities have differing priorities or expectations, it can lead to imbalances that need to be addressed to ensure successful collaboration (Bowers, 2017). Thus, the role of boundary spanners in UCE can also be analyzed using balance theory. Boundary spanners help bridge the gap between universities and communities, ensuring that both parties' interests are aligned and balanced. This alignment is crucial for the success of engagement initiatives (Payne et al., 2024). There is therefore a need for an equity-centred approach to community engagement to be implemented, which emphasizes the importance of balancing power dynamics and ensuring that all voices are heard. Hence, the theory helps to identify and address imbalances in these relationships,

promoting more equitable and effective engagement ([Metropolitan Universities Journal, 2020](#)).

Methodology

This study utilized a qualitative research design to investigate the opportunities and challenges of UCE at the UGLCs. A qualitative approach was selected to gain deep insights into the experiences, perspectives, and interactions of the stakeholders involved ([Creswell, 2013](#)). The study was carried out at multiple UGLCs, which are strategically positioned throughout the country to enhance access to university resources and address community needs ([Goddard et al., 2016](#)). These centres are situated in Accra, Bolgatanga, Cape Coast, Koforidua, Kumasi, Sekondi/Takoradi, Sunyani, Tamale, Tsito/Ho, Tema, and Wa.

A purposive sampling technique, specifically homogeneous sampling, was used because it focusses on a particular subgroup with similar characteristics to provide in-depth understanding of that group. Thus, the subgroups selected were participants with direct experience in UCE activities, who could provide rich, relevant, and diverse perspectives on the topic ([Nyimbili & Nyimbili, 2024](#); [Patton, 2015](#)). The study involved the head of UGLCs at the head office, 8 centre coordinators of the UGLCs, and 3 community members/students who interact with the centres. Saturation was reached at this stage when no new themes, ideas, or insights were emerging from the data, indicating that further data collection was unnecessary ([Guest et al., 2020](#)).

Interviews (lasting for about 20–30 minutes) were conducted to gather in-depth data from participants about their experiences, perspectives, and challenges related to UCE ([Rubin & Rubin, 2012](#)). Participants provided the schedule for the interviews based on their availability in person and on phone.

Some of the questions asked during the interview were: What are the key community engagement initiatives currently undertaken by the UGLCs? Can you share any success stories or positive outcomes from past engagement activities? What challenges have you encountered in implementing community engagement initiatives? What feedback or suggestions do you have for improving community engagement at the UGLCs?

Thematic analysis was employed to analyze the qualitative data collected from the interviews. The analysis involved several steps: the researcher transcribed the interviews and read through the data to become familiar with the content ([Braun & Clarke, 2006](#)). Key themes, patterns, and categories that emerged from the data were identified and labelled ([Saldaña, 2016](#)). Related codes were then grouped into broader themes that captured the essence of the data ([Gibbs, 2007](#)). Finally, the themes were interpreted in relation to the research objectives and theoretical framework to draw meaningful conclusions ([Creswell, 2013](#)).

Ethically, informed consent was obtained from all participants, ensuring they were aware of the study's purpose, procedures, and their right to withdraw at any time. Confidentiality and anonymity were maintained throughout the research process ([Orb et al., 2001](#)). Also, participants were assured that their personal information was kept confidential, and their privacy was protected. Data was anonymized and securely stored to

prevent unauthorized access. To ensure the trustworthiness of the study, several strategies were employed. The researcher used multiple data sources and methods to cross-verify findings (Denzin, 2017). Preliminary findings were shared with participants from Accra, Koforidua, Kumasi, Takoradi, Tamale, Ho/Tsito, and Sunyani to validate the accuracy and interpretation of the data (Lincoln & Guba, 2013). Additionally, the researcher maintained a reflexive journal to document personal reflections, biases, and insights throughout the research process (Finlay, 2012). This enhanced the validity and trustworthiness of the study by allowing the researcher to critically assess and mitigate her biases, leading to more authentic findings. Additionally, it facilitated methodological transparency, providing a clear account of the research process that improved reproducibility and reliability.

Balance theory helps analyze UCE by examining the dynamics and interactions between universities and communities for a mutually beneficial relationship. The qualitative research design, using semi-structured interviews, provides deep insights into the experiences and perspectives of participants such as the head, coordinators, and students/community members ensuring a comprehensive exploration of UCE dynamics. Also, thematic analysis identifies key themes, patterns, and categories from the data, revealing areas of balance or imbalance in UCE activities. This approach highlights where the relationship between the university and community is harmonious or needs improvement and vice versa.

Findings

This section of the paper delves into the findings of the themes and the sub-themes that emerged from them. The ‘opportunities that UCEs offer’ is the first theme identified, and the ‘challenges faced by UCE’ is the last. The findings of a study can be truthful, dependable, and transferable by using alternative criteria for scientific rigour, such as credibility, dependability, confirmability, and transferability (Kakar et al., 2023). Credibility is the confidence in the truth of the findings. It was achieved through prolonged engagement, triangulation (using multiple data sources), and member checking (verifying findings with participants). Dependability on the other hand is the consistency and replicability of findings. For this study, it was ensured by maintaining an audit trail, that is, detailed documentation of research processes as outlined in the methodology. Lastly, transferability involves the applicability of findings to other contexts. This was enhanced by providing thick descriptions, that is, detailed accounts of the research context and processes used as seen in the methodology, so others can judge if findings apply to their own settings (Kyngäs et al., 2019).

Opportunities that UCE offers (from the perspective of UGLCs)

UCE offers a wide range of opportunities that benefit both the institution and the surrounding communities. The sub-themes that emerged from this include image promotion, economic development, enhanced learning experiences, building networks and partnerships, and infrastructural development.

Image promotion of the university

Image promotion is crucial for universities to enhance their visibility, reputation, and overall appeal. Participants narrated:

The University of Ghana's (UG) mission is still very attractive in the eyes of the people. This promotes UG's good image, and it sells the university not only locally but internationally.

The image of the University is also promoted at the UGLCs. Its visibility and reputation create opportunities for partnerships with other institutions, industry, and international organizations. Student enrollment also increases.

Economic development

UCEs offer significant opportunities for economic development. By leveraging their resources, expertise, and networks, universities can play a pivotal role in fostering economic growth and their institutions as well as within their communities. Participants echoed:

We have inmates enrolled in our programmes. The inmates' programmes are well managed, and this opens more opportunities for them to be employed gainfully.

We have instances whereby Ivorians come and then we expose them to basic reading and writing of English language and then, through that some of them can secure jobs in the country. Some too once they gained the qualification, they travelled back to their country to work.

Infrastructural development

Infrastructure development is a significant opportunity within UCEs, providing tangible benefits to both the university and its surrounding communities. Participants echoed:

In terms of opportunities, we have about 7-acre land at the centre. We have utilized 30% of this space available, so, the potential is there for growth if we are ready to put in the necessary investment to expand the centre.

You know, we are also connected to the university wide web, so we can get help from University of Ghana Computing Systems (UGCS). Students can access resources like Balme Library which is a plus.

Opportunities that UCE offers (from the perspective of community members/students)

The narratives provided by community members/students highlight several key opportunities associated with the UGLCs programmes, particularly those delivered through DE.

These opportunities were categorized into sub-themes which are cost-effectiveness, flexibility, professional networking opportunities, and DE. Some of these sub-themes are discussed below:

Cost-effectiveness

The cost-effectiveness of online learning is a major advantage highlighted by the participants. Student participants stated:

It is cost effective. Money that must be spent on commuting from my office to the centre is saved for other purposes because classes are held online. Also, when we are in the office, you just get free data to be online for classes.

Being cost-effective means that I can work and study simultaneously. The advantage is that I don't have to pause my education to work later after completing school. The salary from my job is effectively used to pay my tuition fees.

Flexibility

Flexibility is a crucial benefit of DE programmes, particularly for working professionals. Student participants related:

I love the flexibility aspect. Tutors know that most of us are working class, thus, they are not that rigid with us when it comes to our tuition. All our classes are done on weekends when most of us are not working.

We can learn at their own pace; this allows us to balance studies with work and other commitments.

Professional networking opportunities

The narratives of the students emphasize the networking opportunities provided by DE programmes. Student participants echoed:

I met a lot of influential people through DE, from the police and immigration service. Once you meet them and you are respectful and humble, you start to build relationships and connections with them. And for the past 8 years, I have been still in contact with some of them. Though, most of them are older than I am, I still have that rapport.

I don't joke with professional networking opportunities because I know they can lead to job opportunities and promotions, through connections and referrals made by my friends.

The balance theory helps explain how these opportunities create a balanced and mutually beneficial relationship between the university and the community aligning with theory's emphasis on harmonious interactions. It connects through various opportunities:

image promotion enhances the university's reputation; economic development benefits both the community and the institution; infrastructural development provides tangible benefits; cost-effective and flexible DE programmes benefit students and extend the UGLCs' reach; and professional networking opportunities help students build valuable connections.

Challenges faced by UCE (from the perspective of the UGLCs)

UGLCs play a vital role in providing accessible and flexible education to students and fostering community development. However, they face several challenges that affect their effectiveness. These challenges were categorized into sub-themes including funding limitations, resource constraints, partisan political issues, and administrative barriers. The findings and discussions on some of these sub-themes are given below:

Funding limitations

Funding limitations pose a significant challenge to UCEs, impacting the ability of institutions to effectively support and sustain various initiatives. Participants averred:

Sponsorship and funding for community work are the main sources (NGOs, Ministries, Departments and Agencies (MDAs), Metropolitan, Municipal and District Assemblies (MMDAs), International Agencies etc.) that the centres used to leverage on for such work. The funds are no longer easily sourced or not available due to national and global financial downturn and invisibility of Adult Education programmes. Their humanistic and development-oriented community-based education is tailored to the interest and needs of the people. That was what interested the sponsors to see the Institute of Adult Education as worthy of collaborating with and funding.

There is currently no existing funding for continuing education training programmes. Due to this there is also no improvement in the payment of resource personnels who work with us.

Administrative barriers

The primary administrative challenge is bureaucratic inertia, characterized by the reluctance of the UGLCs head to permit the various centres to manage their own financial resources. Participants lamented:

There are administrative barriers in terms of control of usage of resources to realize the full impact of the program e.g. require receipts and documentation to validate every expense including that of courtesies paid to chiefs and other identifiable bodies to facilitate community acceptance and entry.

Payment processing is delayed because all receipts and payments must be approved at the headquarters in Accra before being returned to the center.

Challenges faced by UCE (from the perspective of community members/students)

The narratives provided by community members/students highlight several challenges associated with the UGLCs programmes, delivered through DE. The sub-themes that emerged include the high cost of data, time management issues, computer illiteracy, network unreliability, limited course offerings, limited contact hours with lecturers, and poor orientation. The discussion of some of these findings is given below.

High internet expenses

High internet expenses are a significant barrier for many students. Although online learning reduces transportation costs, students still face expenses related to purchasing data for internet access. Student participants lamented:

Even though lectures are held online, and it reduces the cost of transportation, that cost is put in the buying of data. The Wi-Fi is not so strong at the Accra city campus. In order to ease the financial burden, some discounts can be given to students with more responsibilities to acquire higher education.

I find it challenging to afford reliable internet connections, since I am required to attend live classes, submit assignments, and access online resources regularly on Sakai.

Computer illiteracy

Lack of computer literacy is a significant challenge, especially for older students who may not be as familiar with using digital tools. Student participants echoed:

We lack computer literacy. We don't really know how to use gadgets to access the online system. Even though the university is providing orientation programs, it is still not enough when it comes to use of computers, laptops etc. Most of the students, especially the older students, have problems with how to use the gadgets. So, if the university could organize more intense programmes on how to use them, it'd be more helpful on their part.

The challenge of computer illiteracy is worrisome. It sometimes hinders my ability to fully participate in the online classes, access my course materials, and complete my assignments in Sakai.

Limited contact hours with lecturers

The feeling of isolation and limited interaction with lecturers is another challenge. Student participants lamented:

Sometimes, somehow, you feel isolated. The lecturers were always with the regular students whereas we met lecturers just once per semester. I am told now DE students meet lecturers to teach them (about 40 % of contact hours) but, in our time it was Tutors who were teaching us.

We meet our lecturers once per semester, when its revision time. This makes it difficult to get timely feedback and guidance and be prepared adequately for exams.

Network unreliability

Unreliable internet connections can severely impact students' ability to complete assignments and participate in online classes. Student participants said:

Sometimes the network will not be too good. It will be time for you to submit your assignments and the Sakai Learning Management System (LMS) will fail you. I have personally been a culprit to this as I lost some marks due to my inability to submit my assignment due to network issues.

We sometimes experience network issues. There was therefore difficulty accessing course materials and frustration during live sessions as you may be interrupted due to unstable internet.

The balance theory helps explain how these challenges create imbalances in the UCE relationship, highlighting areas that need improvement to achieve a more harmonious and mutually beneficial engagement. For example, the feeling of isolation and limited interaction with lecturers creates an imbalance in the educational experience, affecting the quality of engagement and support students receive.

Discussion

Opportunities that UCE offers (from the perspective of UGLCs)

Image promotion of the university. Image promotion involves strategic efforts to shape and communicate the institution's identity to various stakeholders, including prospective students, faculty, alumni, and the broader community. The UGLCs are strategically located in all the former ten regions of the country; being closer to their surrounding communities, they are well able to develop a strong, recognizable brand that reflects the university's values, mission, and strengths. This includes consistent use of logos, colours, and messaging across all platforms. The UGLCs also actively participate in community events and partners with local organizations which strengthens the university's image. In addition, UGLCs maintain strong connections with alumni through events and social media to create a network of advocates who promote the university's image as supported by [Abutalibov \(2014\)](#).

Economic development. Universities contribute to the local economy by developing a skilled workforce. Through education and training programmes, they equip students with

the skills needed to meet the demands of the job market, thereby enhancing employability and supporting local businesses (Jyotishi, 2024). Serving as hubs for innovation and entrepreneurship is also worth mentioning. The UGLCs support start-ups and small businesses through incubators, accelerators, and technology transfer programmes. These skills training can lead to job creation and economic diversification as seen in Franklin's (2020) study.

Infrastructural development. The UGLCs have the potential for a lot of infrastructural development. Projects can be focussed on land for construction of buildings and the provision of Wi-Fi access for both staff and students. Other projects such as the building of public libraries and learning centres, affordable housing, sustainable energy projects, community health clinics, and transportation infrastructure can be established. There are enormous benefits from these projects to the UGLCs as well as their surrounding communities. Universities often collaborate with local communities to develop land for various purposes, such as building new facilities, housing, or community centres. These projects stimulate local economies, create jobs, and provide essential services to the community. It attracts businesses and investors, leading to economic revitalization (Stephenson, 2011). Providing Wi-Fi access is another crucial aspect of infrastructure development in UCEs which is essential for education, business, and daily life. It enables students and community members to participate in online learning, access educational resources, and engage in digital literacy programmes (Sacramento State, 2025). Expanding Wi-Fi access helps bridge the digital divide, ensuring that all community members can benefit from digital technologies. Projects such as the Philly Community Wireless initiative, involving Temple University staff, focus on creating free wireless broadband networks for underserved areas, thereby promoting digital inclusion and equity (Temple University, 2021). Similarly, the University of Ghana can leverage the UGLCs to develop initiatives that bridge the digital divide in Ghana, particularly in deprived communities.

Opportunities that UCE offers (from the perspective of community members/ students)

Cost-effectiveness. Some students made mention of the fact that DE is cost-effective. The provision of free internet in their offices for online classes significantly lowered the financial burden on them. This is consistent with the literature, which indicates that online education can reduce costs for both institutions and students by eliminating the need for physical infrastructure and commuting expenses (Jung & Rha, 2000; Means et al., 2010).

Flexibility. The ability to access lessons online from any location allows students to balance their work, personal life, and education more effectively. This flexibility is supported by studies which show that online learning environments can accommodate diverse schedules and learning paces, making education more accessible to a broader audience (Hunter, 2021; Kim et al., 2019).

Professional networking opportunities. Students reported meeting influential individuals through their online courses. These interactions not only enhanced their professional networks but also fostered long-term relationships that can be beneficial for career development. Online learning platforms were also made which were increasingly recognized for their potential to facilitate professional networking and collaboration among students and industry professionals (Stanley, 2024).

Applying the balance theory to UCE involves navigating both opportunities and challenges to achieve a harmonious and mutually beneficial relationship. For the opportunities, the theory emphasizes reciprocal relationships. This means that the UGLCs can provide resources, expertise, and research capabilities, while communities offer practical insights and real-world contexts for academic work. The students also gain hands-on experience and develop skills that are directly applicable to real-world situations, enriching their academic journey. Additionally, engaging with communities allows the UGLCs to address local issues, contributing to societal development and fostering goodwill.

Challenges faced by UCE (from the perspective of the UGLCs)

Funding limitations. The funding limitations are often exacerbated by broader economic conditions, such as global financial downturns, rising operational costs, and decreased enrolment. The global financial downturn has placed considerable strain on higher education institutions, leading to budget cuts and reduced funding for community engagement programmes. Economic recessions, such as those triggered by the COVID-19 pandemic, have forced universities to reallocate resources to essential operations, often at the expense of community-focussed initiatives. In addition, the decline in undergraduate adult education programmes further complicates the funding landscape for UCEs. This is in alignment with a study that Adult Education programmes are crucial for providing lifelong learning opportunities and supporting community development. However, the consistent decline in enrolment and funding for these programmes has reduced their availability and impact (Pickard, 2022).

Administrative barriers. There are administrative challenges that need to be addressed. All payments must be approved by the Head of UGLCs on the main campus before being processed by the centres, resulting in significant delays in operations. Also, the practice of paying courtesies to chiefs and other traditional leaders can present significant administrative challenges, particularly when these payments cannot be documented with receipts. These courtesies, often given as a sign of respect and to facilitate smooth interactions, can include monetary gifts, livestock, or other valuable items. Too much control of the operations from the head office hinders or limits the use of the Centre's geo-knowledge to plan and manage the programme for full realization of its objectives. Without receipts, it becomes difficult to provide proof of these transactions in financial records. The lack of documentation can lead to issues with transparency and accountability, making it challenging to justify expenses during audits or financial reviews. The practice of giving courtesies without receipts can raise ethical questions about the use of university funds. It may be perceived as a lack of transparency or even as a form of bribery, which can damage

the institution's reputation and trust within the community (Sprague Martinez et al., 2023). This study supports that of Nchu (2024) that identified bureaucratic inertia as a great challenge in UCE.

Challenges faced by UCE (from the perspective of community members/ students)

High internet expenses. Most students complained about the high internet expenses when they are not in their offices using Wi-Fi. This financial burden can be alleviated by providing stronger Wi-Fi networks on campuses and offering discounts of tuition fees to students with additional responsibilities as Castleman and Meyer (2019) argued. It should be noted that funding shortages can hinder students' ability to fully engage in their studies, leading to stress and decreased academic performance. This is supported by Hunter (2021).

Computer illiteracy. Despite the orientation programmes organized in the various centres, many students still struggle with basic computer skills, which affects their ability to participate in online learning effectively. This is supported by the Pew Research Center (2016). Enhanced and more intensive training programmes are therefore necessary to bridge this gap and ensure all students can navigate online learning platforms confidently (Genie Academy, 2018).

Limited contact hours with lecturers. DE students often have fewer opportunities to engage with their lecturers compared to regular students, which can affect their learning experience and academic support. This is in alignment with the University of Florida's (2023) study. Increasing contact hours and providing more opportunities for interaction can help mitigate this issue (Purdue University, 2023).

Network unreliability. Some students complained about losing marks in their assignments because of the unreliable network in using the Sakai LMS. Hedau (2023) also confirmed that network issues can lead to missed deadlines and lost marks, as highlighted by students' experience. Ensuring reliable internet access is crucial for the success of online learning programmes ((University of Minnesota, 2023)); thus, the management of the UGLCs should be proactive in doing that.

Applying the balance theory with UCE requires skilfully managing both opportunities and challenges to foster beneficial relationship. Hence, in terms of the challenges, ensuring that both the UGLCs and the community/students have equal say and benefit equally can be difficult. Universities often have more resources and influence, which can lead to an imbalance. Secondly, maintaining long-term engagement requires continuous effort and resources, which can be challenging to sustain. In addition, differences in organizational culture and priorities between universities and communities can lead to misunderstandings and conflicts. These situations can be understood through the lens of the theory and these differences can be addressed. By applying balance theory, the UGLCs can strive to create and maintain equitable partnerships that maximize benefits

while addressing the inherent challenges. This approach ensures that both the university (UGLCs) and the community grow and thrive together.

Limitations and direction for future studies

The following research limitations were addressed. Subjective bias was an issue from the qualitative nature of the study, but was mitigated by peer debriefing, member checking, and maintaining a reflexive journal. Participants' availability and willingness was also an issue because it can affect data quality and completeness. This was mitigated by ensuring flexible scheduling of the interviews.

Future studies should examine the impact of specific policies and administrative practices on the effectiveness of UCE to identify changes that could enhance engagement and resource management. Additionally, conducting in-depth studies focussing on the community's perspective will help understand their needs, expectations, and experiences with UCE. This will ensure that engagement initiatives are better aligned with community priorities, leading to more effective and mutually beneficial outcomes.

Recommendations and practical implications

This study highlights practical implications that institutional management, policy makers, and academics can implement to enhance societal well-being and development. There is a need to provide enhanced financial support by allocating more funds to UGLCs and policy makers to develop funding schemes for UCE initiatives. Improved technological infrastructure is recommended, with universities investing in better internet connectivity and digital tools. To increase contact hours with lecturers, the UGLCs management should adjust schedules for more interaction with students, and lecturers should offer additional office hours or virtual sessions. For image promotion, UGLCs can use UCE activities to boost their reputation and attract partnerships and communities/students can engage in collaborative projects to highlight UCE's positive impact. Economic development is of immense importance for universities. UGLCs can partner with local businesses to create internships and job opportunities. Communities can also leverage university resources for local economic initiatives. Finally, professional networking can be enhanced by UGLCs. UGLCs management should organize networking events and workshops, and communities/students should participate in building relationships and exploring collaborative opportunities.

Conclusion

The UGLCs provide significant benefits to both the institution and surrounding communities, including image promotion, economic development, and accessible education. They also offer networking opportunities and professional growth for students. However, UGLCs and students/communities face challenges such as financial, administrative, high internet expenses, and limited contact hours with lecturers. Addressing these challenges is crucial for improving the effectiveness of UCE.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Abigail A Aryeh-Adjei  <https://orcid.org/0000-0003-0767-9100>

References

- Abutalibov, R. (2014). Creating the image of the university. *Academia.edu*. https://www.academia.edu/121291119/Creating_the_image_of_the_university
- Agyekum, B., & Amponsah, S. (2024). *Achieving human potential through community learning centres in Ghana: A capabilities approach to community development*. *Studies in the Education of Adults*, 1–21. <https://doi.org/10.1080/02660830.2024.2329395>
- Bakar, F. A., Sharif, Z., & Abdullah, Z. (2019). Managing university-community engagement (UCE): The case of UUM. *International Journal of Innovative Technology and Exploring Engineering*, 8(8S3), 199–205. <https://www.ijitee.org/wp-content/uploads/papers/v8i8s3/H10590688S319.pdf>.
- Berry, G. R., & Hughes, H. (2020). Integrating work–life balance with 24/7 information and communication technologies: The experience of adult students with online learning. *American Journal of Distance Education*, 34(2), 91–105. <https://doi.org/10.1080/08923647.2020.1701301>
- Bhagwan, R. (2018). University-community partnerships: Demystifying the process of engagement. *South African Review of Sociology*, 49(3–4), 32–54. <https://doi.org/10.1080/21528586.2019.1570324>
- Bowers, A. M. (2017). University–community partnership models: Employing organizational management theories of paradox and strategic contradiction. *Journal of Higher Education Outreach and Engagement*, 21(1), 107–112. <https://files.eric.ed.gov/fulltext/EJ1144548.pdf>
- Boyer, E. L. (1996). The scholarship of engagement. *Journal of Public Service and Outreach*, 1(1), 11–20. <https://files.eric.ed.gov/fulltext/EJ1097206.pdf>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bringle, R. G., & Hatcher, J. A. (2002). Campus-community partnerships: The terms of engagement. *Journal of Social Issues*, 58(3), 503–516. <https://doi.org/10.1111/1540-4560.00273>
- Brown-Luthango, M. (2012). Community-university engagement: The Philippi CityLab in Cape Town and the challenge of collaboration across boundaries. *Higher Education*, 65(3), 309–324. <https://doi.org/10.1007/s10734-012-9546-z>

- Castleman, B., & Meyer, K. (2019). Financial constraints & collegiate student learning: A behavioral economics perspective. *Daedalus*, 148(4), 195–216. https://doi.org/10.1162/daed_a_01767
- Clifford, D., & Petrescu, C. (2012). The keys to university–community engagement sustainability. *Nonprofit Management and Leadership*, 23(1), 77–91. <https://doi.org/10.1002/nml.21051>
- Cobbold, C. (2017). Moving from page to playground: The challenges and constraints of implementing curriculum in Ghana. *Research on Humanities and Social Sciences*, 7(4), 1–11. <https://www.iiste.org/Journals/index.php/RHSS/article/view/35730>
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Sage Publications.
- Denzin, N. K. (2017). Critical qualitative inquiry. *Qualitative Inquiry*, 23(1), 8–16. <https://doi.org/10.1177/1077800416681864>
- Farnell, T., Čulum Ilić, B., Dusi, D., O'Brien, E., Šćukanec Schmidt, N., Veidemane, A., & Westerheijden, D. (2020). *Building and piloting the TEFCE toolbox for community engagement in higher education*. Institute for the Development of Education. https://community-engagement.eu/wp-content/uploads/2023/03/TEFCE_building_piloting_toolbox.pdf
- Finlay, L. (2012). Debating phenomenological research methods. *Phenomenology & Practice*, 3(1), 6–25. <https://doi.org/10.29173/pandpr19818>
- Genie Academy. (2018, July 28). Computer illiteracy risks in a digital age. <https://www.genieacademy.com/blog/the-danger-of-computer-illiteracy-in-an-increasingly-digital-world>
- Gibbs, G. R. (2007). *Analyzing qualitative data*. Sage Publications. <https://doi.org/10.4135/9781849208574>
- Global Engagement Studies Institute. (2025). *Global engagement through experiential learning and leadership development*. Northwestern University. <https://www.northwestern.edu/abroad/programs/summer-programs/northwestern-summer-programs/global-engagement-studies-institute/>.
- Goddard, J., Hazelkorn, E., Kempton, L., & Vallance, P. (2016). *The civic university: The policy and leadership challenges*. Edward Elgar Publishing. <https://doi.org/10.4337/9781784717728>
- Gorni, R. L., Nurdin, D., & Komariah, A. (2024). Leveraging technology for remote supervision: Overcoming challenges in supervising geographically dispersed student teachers. *International Journal of Educational Qualitative Quantitative Research*, 3(1), 9–20. <https://doi.org/10.58418/ijeqr.v3i1.95>
- Grau, F. X., Hall, B. L., & Tandon, R. (2017). *Higher education in the world 6: Towards a socially responsible university – balancing the global with the local* [GUNi Series on the Social Commitment of Universities. Global University Network for Innovation]. <https://unesdoc.unesco.org/ark:/48223/pf0000248150>
- Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PLoS One*, 15(5), Article e0232076. <https://doi.org/10.1371/journal.pone.0232076>
- Hedau, S. (2023, December 7). 7 disadvantages of online learning: A comprehensive analysis. *Genie Academy*. <https://softspacesolutions.com/blog/disadvantages-of-online-learning/>
- Heider, F. (1946). Attitudes and cognitive organization. *Journal of Psychology*, 21(1), 107–112. <https://doi.org/10.1080/00223980.1946.9917275>

- Holland, B. (2016). *Community engagement in higher education: A critical perspective*. Palgrave Macmillan.
- Holland, B. A. (2005). Reflections on community-campus partnerships: What has been learned? What are the next challenges? In P. A. Pasque, R. E. Smerek, B. Dwyer, N. Bowman, & B. L. Mallory (Eds.), *Higher education collaboratives for community engagement and improvement* (pp. 10–17). National Forum on Higher Education for the Public Good.
- Hunter, J. (2021, September 8). Flexibility is the biggest benefit of online learning, students say. *Higher Education*. <https://www.timeshighereducation.com/student/news/flexibility-biggest-benefit-online-learning-students-say>
- Jacoby, B. (2003). *Building partnerships for service-learning*. Jossey-Bass.
- Jung, I., & Rha, I. (2000). Effectiveness and cost-effectiveness of online education: A review of the literature. *Educational Technology*, 40(4), 57–60. <https://www.jstor.org/stable/44428629>
- Jyotishi, S. (2024, March 12). Universities say they promote economic development, but how? *New America*. <https://www.newamerica.org/education-policy/edcentral/universities-say-they-promote-economic-development-but-how/>
- Kakar, Z., Rasheed, R., Rashid, A., & Akhter, S. (2023). *Criteria for assessing and ensuring the trustworthiness in qualitative research*. *International Journal of Business Reflections*. <https://doi.org/10.56249/ijbr.03.01.44>
- Kim, J., Hong, S., & Song, H. (2019). Flexibility in e-learning: Modelling its relation to behavioural engagement and academic performance. *Themes in eLearning*, 12(12), 1–16. <https://files.eric.ed.gov/fulltext/EJ1251161.pdf>
- Kirkup, G. (2014). Challenges to producing high-quality distance learning. *Open Learning: The Journal of Open, Distance and e-Learning*, 29(1), 1–4. <https://doi.org/10.1080/02680513.2014.922411>
- Koekkoek, A., Van Ham, M., & Kleinhans, R. (2021). Unraveling university–community engagement: A literature review. *Journal of Higher Education Outreach and Engagement*, 25(1), 3–24. <https://eric.ed.gov/?id=EJ1300413>
- Kovács, I., Hao, B., & Weinberg, M. (2024). Proper network randomization is key to assessing social balance. *Science Advances*, 10(23), ead0104. <https://doi.org/10.1126/sciadv.adj0104>
- Kyngäs, H., Kääriäinen, M., & Elo, S. (2019). The trustworthiness of content analysis. In H. Kyngäs, K. Mikkonen, & M. Kääriäinen (Eds.), *The application of content analysis in nursing science research* (pp. 41–48). Springer. https://doi.org/10.1007/978-3-030-30199-6_5
- Lincoln, Y. S., & Guba, E. G. (2013). *The constructivist credo*. Left Coast Press.
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. U.S. Department of Education. <https://eric.ed.gov/?id=ED505824>
- Metropolitan Universities Journal. (2020). An engagement of hope: A framework and equity-centered theory of community engagement. *Metropolitan Universities Journal*, 31(3), 1–15. <https://files.eric.ed.gov/fulltext/EJ1320850.pdf>
- Muwanguzi, E., Serunjogi, C. D., & Kibaya, E. (2023). An analysis of community engagement in higher education: A conceptual exploration. *British Journal of Education, Learning and Development Psychology*, 6(3), 120–129. <https://doi.org/10.52589/BJELDP-JX4KJGWO>

- Mwinyine, D. T., Aabeyir, R., & Fielmua, N. (2014). Linking academia and community: Evidence from student-community engagement in Ghana. *Ghana Journal of Development Studies*, 14(1), 123–135. <https://doi.org/10.4314/gjds.v14i1.11>
- Nchu, F. (2024). Opportunities and challenges impeding the adoption of community engagement and service learning in African higher education institutions: A minireview and perspective. Preprints. <https://doi.org/10.20944/preprints202406.1842.v1>
- Nyimbili, F., & Nyimbili, L. (2024). Types of purposive sampling techniques with their examples and application in qualitative research studies. *British Journal of Multidisciplinary and Advanced Studies*, 5(1), 90–99. <https://doi.org/10.37745/bjmas.2022.0419>
- Oaks, M., Franklin, N., & Bargerstock, B. A. (2009). Situating Outreach and Engagement in the University: Concepts, Challenges, and Opportunities. *Continuing Higher Education Review*, 73, 224–233.
- Ogunsanya, O., & Govender, I. (2019). University–community engagement: Current tensions and future trends. *International Journal of African Higher Education*, 6(1), 51–76. <https://doi.org/10.6017/ijahe.v6i1.11089>
- O’Meara, K. (2018). Navigating the complexities of community engagement. *Journal of Higher Education Outreach and Engagement*, 22(1), 15–30. <https://openjournals.libs.uga.edu/jheoe/article/view/1244>
- Orb, A., Eisenhauer, L., & Wynaden, D. (2001). Ethics in qualitative research. *Journal of Nursing Scholarship: An Official Publication of Sigma Theta Tau International Honor Society of Nursing*, 33(1), 93–96. <https://doi.org/10.1111/j.1547-5069.2001.00093.x>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Sage Publications.
- Payne, A., Orchard, R., Brewer, J., & Moreau, C. (2024). Fluid practices of university–community engagement boundary spanners at a land-grant university. *Journal of Higher Education Outreach and Engagement*, 28(3), 113–130. <https://files.eric.ed.gov/fulltext/EJ1445709.pdf>
- Pew Research Center. (2016, September 20). Digital literacy and learning in the United States. <https://www.pewresearch.org/internet/2016/09/20/digital-readiness-gaps/>
- Pickard, A. (2022). Declining enrollment in federally-funded adult education: Critical questions for the field. *Adult Literacy Education: The International Journal of Literacy, Language, and Numeracy*, 4(2), 36–49. <https://doi.org/10.35847/APickard.4.2.36>
- Purdue University. (2023, November 1). VI.F.4 – university policy office: Terms and conditions of employment of lecturers. <https://www.purdue.edu/policies/human-resources/vif4.html>
- Rojas, F. (2024). Integrative methodologies for evaluating bidirectional impacts in university–community engagements. *Studies in Education Sciences*, 5(4), Article e10252. <https://doi.org/10.54019/sesv5n4-002>
- Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). Sage Publications.
- Sacramento State. (2025). Wireless access. <https://www.csus.edu/information-resources-technology/networking-infrastructure/wireless.html>
- Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). SAGE Publications.
- Saltmarsh, J., & Hartley, M. (Eds.), (2011). *To serve a larger purpose: Engagement for democracy and the transformation of higher education*. Temple University Press.

- Sandmann, L. R. (2008). Conceptualization of the scholarship of engagement in higher education: A strategic review, 1996–2006. *Journal of Higher Education Outreach and Engagement*, 12(1), 91–104. <https://openjournals.libs.uga.edu/jheoe/article/view/520>
- Sprague Martinez, L., Howard, R. C., Schotland, M., Lobb, R., Battaglia, T., Stone, S., Auerswald, C., & Ozer, E. (2023). Community engagement and financial arrangements: Navigating institutional change. *Journal of Clinical and Translational Science*, 7(1), e261. <https://doi.org/10.1017/cts.2023.683>
- Stephenson, M. (2011). Conceiving land grant university community engagement as adaptive leadership. *Higher Education*, 61(1), 95–108. <https://doi.org/10.1007/s10734-010-9328-4>
- Stoecker, R. (2005). *Research methods for community change: A project-based approach*. Sage Publications.
- Strier, R. (2011). The construction of university-community partnerships: entangled perspectives. *Journal of Higher Education*, 62(1), 81–97. <https://doi.org/10.1007/s10734-010-9367-x>
- Strier, R. (2014). Fields of paradox: University–community partnerships. *Higher Education*, 68(2), 155–165. <https://doi.org/10.1007/s10734-013-9698-5>
- Tagoe, M. A. (2014). Transforming teaching and learning at University of Ghana through community service-learning: Listening to the voices of students. *Journal of Education and Training Studies*, 2(4), 159–169. <https://doi.org/10.11114/jets.v2i4.503>
- Tanko, I. M. (2016). *An ethnographic case study of a university community engagement programme of a public university in Ghana* [Doctoral dissertation. University of Leicester]. <https://figshare.le.ac.uk/articles/thesis/10183406>
- Temple University. (2021, October 7). Philly Community Wireless offers internet for the community, by the community. *Temple Now*. <https://news.temple.edu/news/2021-10-07/philly-community-wireless-offers-internet-community-community>
- Tshishonga, N. S. (2022). Forging university social responsibility through community engagement at higher education. In I. R. Management Association (Ed.), *Research anthology on citizen engagement and activism for social change* (pp. 902–916). IGI Global. <https://doi.org/10.4018/978-1-6684-3706-3.ch048>
- University Engagement with the Community. (2020). *Transforming higher education*. EARTH University & GCHERA. <https://transforminghigher.education/wp-content/uploads/2020/12/2-University-engagement-with-thecommunity-eng.pdf>
- University of Florida. (2023). Calculation of contact hours and credit hours. <https://registrar.ufl.edu/pdf/contacthours.pdf>
- University of Ghana. (2014). *Strategic plan 2014–2024*. <https://www.ug.edu.gh/pad/sites/pad/files/2023-06/UGStrategicPlan.pdf>
- University of Ghana. (2022). *University of Ghana learning centres*. School of Continuing and Distance Education. <https://scde.ug.edu.gh/department/university-ghana-learning-centres>
- University of Ghana. (2023a). *Student enrollment statistics: 2023/2024 academic year*. Institutional Research and Planning Office. <https://irpo.ug.edu.gh/sites/irpo/files/ENROLLMENTSTATISTICS2024.pdf>
- University of Ghana. (2023b). *University of Ghana learning centres*. School of Continuing and Distance Education. <https://scde.ug.edu.gh/department/university-ghana-learning-centres>

- University of Minnesota. (2023). *Finding a connection: Broadband access a barrier to remote learning*. Research & Innovation Office. <https://research.umn.edu/news/finding-connection-broadband-access-barrier-remote-learning>
- Wallerstein, N., Minkler, M., Carter-Edwards, L., Avila, M., & Sánchez, V. (2015). Improving health through community engagement, community organization, and community building. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health behavior: Theory, research, and practice* (5th ed., pp. 277–300). Jossey-Bass.