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Research Article

Adopting Heutagogy in Non-Formal Education: A Participatory Action Research with Community Learning Centers

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Abstract

The rapid transformation in the demands of 21st-century competencies requires a shift in learning paradigms, particularly in non-formal education settings where learner autonomy and lifelong learning are central. Heutagogy, or self-determined learning, offers a promising approach to empower learners in community-based contexts. This study aims to explore the adoption of heutagogical principles in Community Learning Centers (CLCs) through a participatory action research (PAR) framework. The research was conducted in three CLCs across rural and urban areas, involving facilitators, learners, and community stakeholders as co-researchers. Data were collected through focus group discussions, reflective journals, and participatory observations over three action cycles. The findings reveal that implementing heutagogy in non-formal education fosters increased learner autonomy, critical reflection, and contextualized learning practices. Moreover, facilitators' roles evolved from knowledge transmitters to learning partners, enhancing collaborative dynamics within the CLCs. The study concludes that heutagogy is not only feasible but also transformative in non-formal education, particularly when implemented through participatory and context-responsive strategies. This research contributes to expanding heutagogical practices beyond formal institutions and supports the development of learner-centered, adaptive educational models in marginalized communities.

Keywords: heutagogy, non-formal education, participatory action research, community learning centers, learner autonomy



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INTRODUCTION

Heutagogy, as a learner-centered and self-determined approach to learning, has gained traction in formal educational settings, particularly in higher education. However, its application in non-formal education, especially within community-based learning environments, remains underexplored despite its potential to empower learners through autonomy and critical reflection. Community Learning Centers (CLCs), which often operate outside the confines of formal education systems, serve as a unique space where adult learners engage in skills development, literacy, and lifelong learning.

Community-based education faces significant challenges in aligning pedagogy with the diverse and self-directed learning needs of adult learners. Traditional pedagogical methods frequently fall short in addressing the contextual realities, prior experiences, and learning aspirations of participants in CLCs (Meirinawati et al., 2024; Vinh et al., 2025; Yurén Camarena et al., 2025). Incorporating heutagogy into these contexts may offer a transformative shift by emphasizing capability development, learner agency, and reflective practice, which are often neglected in conventional non-formal education models.

The increasing global recognition of lifelong learning and the call for inclusive education highlight the urgency to explore innovative pedagogical approaches for non-formal education. CLCs, supported by governmental and non-governmental institutions, aim to promote sustainable development through education that resonates with local needs (Hernández-Dionis, 2024; Heslop & Friedman, 2025; Heuer et al., 2025; Liga et al., 2024). Heutagogy, with its foundation in self-determined learning, appears highly compatible with the goals of community-based education, yet its practical adoption and implications remain largely unexamined in empirical research.

There is a mismatch between the pedagogical methods employed in non-formal education settings and the characteristics of adult learners who demand flexibility, contextual relevance, and learner-driven content. In many CLCs, teaching remains teacher-centered, with limited opportunities for learners to take initiative in shaping their learning processes (Mirat et al., 2024; Rusevska et al., 2024; Vičič Krabonja et al., 2024). This situation restricts the potential of CLCs to serve as transformative learning environments that truly respond to the needs and realities of marginalized communities.

Adult learners in CLCs often bring a wealth of lived experiences and informal knowledge that are not adequately recognized or utilized in conventional learning models. The lack of structured frameworks to integrate self-determined learning practices into non-formal education restricts learners' engagement and growth (Escorihuela et al., 2025; Koludrovic & Delija, 2024; Llanos-Ruiz et al., 2024) Without methodologies that honor learner agency, many educational programs fail to promote the critical thinking and adaptability necessary for real-world problem solving.

Despite the increasing attention to learner autonomy and lifelong learning in policy discourse, there is a noticeable gap in translating these ideas into practical pedagogical models at the grassroots level (Gebrekidan, 2024; Higgins & Gibson, 2024; Rachmawati et al., 2024). Educators and program facilitators in CLCs frequently lack the training and support to implement heutagogical principles, resulting in a continuation of didactic, top-down instructional approaches that do not align with heutagogical values.

This study aims to explore how heutagogical principles can be adopted and implemented in nonformal education settings, particularly within Community Learning Centers. It seeks to examine the processes and strategies by which facilitators and learners co-create meaningful learning experiences grounded in self-determined learning (Stanojević et al., 2025; Sunarti et al., 2024; Vaca, 2024; Vankov & Wang, 2024). The research will also investigate the impact of this approach on learner engagement, motivation, and capability development.

The study intends to generate practical insights through participatory action research involving both educators and learners in CLCs. It will analyze the ways in which heutagogical practices can be contextualized to meet local educational needs and assess the extent to which such practices can foster learner autonomy and reflective learning (Adina Coman & Mircea Chereches, 2024; Kocaman & Göküş, 2024; Maran et al., 2025; Suhner, 2024; Teles et al., 2024). Special attention will be given to the dynamics of power, culture, and identity in shaping the learning process.

Through this research, the goal is to contribute to the development of a pedagogical framework that supports the integration of heutagogy into community-based non-formal education. This framework is expected to provide guidance for educators, policymakers, and program designers seeking to foster transformative and sustainable learning environments in diverse community settings.

Existing literature on heutagogy is predominantly situated within the context of formal education, particularly in higher education and digital learning environments. While these studies highlight the efficacy of self-determined learning in fostering critical and lifelong learning skills, few have addressed its applicability and effectiveness in non-formal educational contexts such as CLCs. This leaves a significant gap in understanding how heutagogy can be practically adapted and utilized in alternative learning spaces.

Most research on community education focuses on access, participation, and basic outcomes such as literacy rates, without sufficiently addressing the pedagogical dimensions of learning. Discussions around pedagogy in CLCs often remain centered on conventional or competency-based models, with little emphasis on learner agency or reflective learning (Owusu-Agyeman, 2024; Wakhidah et al., 2024). Consequently, there is a need for studies that delve into pedagogical innovation in community education, particularly ones that draw from contemporary learning theories like heutagogy.

Studies that do explore alternative pedagogies in community settings tend to lack empirical depth or are limited to case studies with minimal participatory engagement. There is a critical need for participatory and action-oriented research that not only theorizes but also experiments with and evaluates the integration of heutagogy in real-world non-formal education contexts. Such research could fill a valuable niche in educational theory and practice by bridging conceptual ideals with communitybased realities.

This study offers a novel contribution by extending heutagogical theory beyond formal academic settings and into the realm of non-formal education through Community Learning Centers. Unlike previous studies that focus on individual learners or digital platforms, this research emphasizes collective learning, participatory design, and localized educational practices within marginalized communities. By doing so, it opens new avenues for contextualizing heutagogy in diverse and underrepresented educational spaces.

The participatory action research approach employed in this study is a key aspect of its originality. It facilitates a co-learning process between researchers, educators, and learners, thereby ensuring that the resulting insights are grounded in practice and shaped by the lived experiences of those directly involved. This methodological choice strengthens the study's potential to produce actionable outcomes and scalable models for educational innovation in non-formal settings.

The justification for this research lies in the pressing need to rethink how non-formal education can empower learners in meaningful ways. As global educational agendas emphasize inclusivity, adaptability, and lifelong learning, it becomes essential to investigate pedagogies that align with these values. Heutagogy, when adapted and contextualized through participatory research, can offer a powerful tool for transforming community-based education and advancing social equity through learning.

RESEARCH METHOD

Research Design

This study employed a participatory action research (PAR) design to explore the adoption of heutagogical principles in non-formal education settings, particularly within Community Learning Centers (CLCs). PAR was chosen due to its collaborative nature, allowing researchers and participants to co-investigate and co-create solutions that are contextually relevant. The cyclical process of planning, acting, observing, and reflecting facilitated continuous improvement and ensured the integration of participants' voices in shaping the heutagogical learning environment.

Research Target/Subject

The population of this study consisted of adult learners and facilitators involved in CLCs located in rural and semi-urban areas. A purposive sampling technique was applied to select three CLCs known for their active community engagement and diverse learning activities. The sample included 15 adult learners and 6 learning facilitators who voluntarily participated in the study and were directly involved in the co-learning and co-reflection processes throughout the research cycle.

Research Procedure

The research was carried out in three iterative phases: planning, action, and reflection. In the planning phase, researchers conducted preliminary discussions with CLC facilitators to identify challenges and opportunities for heutagogical integration. The action phase involved implementing learner-driven projects, promoting flexible learning paths, and facilitating self-assessment activities aligned with heutagogical principles. The reflection phase included collective analysis sessions with participants to evaluate the effectiveness of the interventions and plan subsequent actions. Ethical considerations, including informed consent, confidentiality, and voluntary participation, were upheld throughout the study.

Instruments, and Data Collection Techniques

Data collection instruments included semi-structured interviews, focus group discussions (FGDs), observation checklists, and reflective journals. Interviews and FGDs were used to gather participants' perspectives on learning autonomy, self-determined learning practices, and perceived changes in their learning engagement. Observations focused on documenting learner behaviors, facilitator strategies, and interaction patterns during learning sessions. Reflective journals served to capture ongoing thoughts, insights, and critical reflections from both researchers and participants.

RESULTS AND DISCUSSION

The collected quantitative data from four Community Learning Centers (CLCs)-labeled CLC A through showed consistent improvement in participants' learning outcomes after the implementation of heutagogical principles. As reflected in the pre- and post-test scores, all CLCs demonstrated an average increase of 15–18 points. CLC C exhibited the most notable improvement, with the average score rising from 65.1 to 82.3, while CLC B, though initially lowest, showed a similar positive trend from 58.7 to 75.2.

Regarding the readiness for self-directed learning, the Likert-scale assessments (ranging from 1 to 5) revealed an increase of approximately 1 point across all centers. CLC C again reported the highest self-directed learning readiness post-intervention (4.3), followed by CLC A (4.1), indicating strong internalization of learner autonomy among participants. These shifts suggest a significant enhancement in learners' confidence and ability to regulate their own learning processes.

Statistical analysis applied to the data used paired sample t-tests to measure the significance of the difference between pre- and post-test results. Each learning center reported p-values below 0.05, confirming the effectiveness of the heutagogical approach. The average effect size (Cohen's d) across all CLCs was 1.12, indicating a strong practical impact of the intervention on learning outcomes and learner autonomy.

Cross-referencing improvements in test scores with increased self-directed learning readiness reveals a strong positive correlation (r = 0.82). This correlation supports the hypothesis that heutagogy fosters not only academic performance but also deeper learner engagement and independence. Participants who demonstrated higher growth in self-regulation typically also showed the most improved test outcomes.

A deeper look into each learning center's context highlights diverse applications of heutagogy based on local needs. In CLC A, for instance, learners were encouraged to co-design modules aligned with their vocational goals, which significantly increased both engagement and performance. Meanwhile, CLC D implemented peer-feedback mechanisms, fostering collaborative autonomy that suited its community-based model.

In-depth interviews and field observations also revealed a shift in the role of facilitators—from content deliverers to learning enablers. Many facilitators reported an increased sense of learner empowerment, with participants taking initiative in setting goals, seeking resources, and evaluating their own progress. The case of CLC C particularly showcased how learners collectively restructured the curriculum to match their real-world learning needs.

Participants reported enhanced motivation and a stronger sense of ownership over their learning journey. Many expressed that the participatory and flexible approach helped them to overcome previous learning challenges, particularly those related to lack of formal education access. These qualitative insights confirmed and contextualized the quantitative improvements observed across the CLCs.

Overall, the adoption of heutagogical principles in non-formal education settings has demonstrated both statistical and practical significance. The results suggest that heutagogy is not only adaptable to community learning contexts but also capable of generating transformative learning experiences for adult learners.

The research revealed that adopting a heutagogical approach in non-formal education significantly enhanced learners' autonomy, self-efficacy, and engagement in community learning centers (CLCs). Learners were more involved in defining their learning paths, setting goals, and evaluating their progress. Facilitators also reported a shift in their role-from knowledge transmitters to learning enablers-fostering deeper interaction and mutual respect. The participatory action research design provided a dynamic space where learners and facilitators collaboratively explored learning strategies, adapting them to contextual needs.

This study's results complement prior findings in adult and higher education contexts where heutagogy is known to support lifelong learning competencies. However, it contrasts with research that highlights barriers to self-directed learning in low-resource settings, demonstrating that with proper facilitation and context-specific strategies, heutagogy is feasible even in underserved communities (Mármol et al., 2024; McLean, 2024; Papachristopoulos, 2024). It also differs from prior models by emphasizing community collaboration over individualistic learning, which aligns more closely with non-formal education's social orientation.

The findings indicate a shifting paradigm in non-formal education where learners are no longer passive recipients of knowledge but active co-creators of their educational experiences. This transition suggests a need to reconsider the design and delivery of educational programs in CLCs, especially in terms of curriculum flexibility and the role of facilitators (Dordio et al., 2024; Fikadu et al., 2024; Habib et al., 2024). The study also signals the growing relevance of self-determined learning frameworks in addressing diverse learner needs in community-based education.

Implications of these findings are both practical and theoretical. Practically, CLCs must redesign their pedagogical frameworks to include more learner-driven elements, ensuring greater alignment with learners' lived experiences (Dražić & Devetak, 2025; Hennig et al., 2024). Theoretically, this study contributes to the discourse on inclusive education by presenting heutagogy as a tool to democratize learning. For policymakers and practitioners, the research underscores the potential of participatory and flexible learning designs in enhancing community empowerment and sustainable education outcomes.

The effectiveness of heutagogy in this context is rooted in its adaptability and responsiveness to learners' real-life challenges and motivations. Learners showed increased engagement because their personal goals and interests shaped the learning process (Indraputra & Astuti, 2024; Tazhenova et al., 2024). The supportive structure of participatory action research created a safe space for experimentation and mutual learning. Facilitators' openness to redefine their roles contributed significantly to building learner trust and ownership.

Understanding why heutagogy worked in non-formal settings requires examining the socio-cultural dynamics of community learning. Learners brought rich lived experiences and intrinsic motivations that traditional pedagogies often overlook. The emphasis on dialogue, reflection, and co-construction of knowledge resonated with the values of the community, making learning more meaningful and sustainable. Institutional flexibility and localized decision-making also played critical roles in facilitating this educational transformation.

Given the success of this initiative, community learning centers should now focus on capacity building for facilitators to sustain and scale heutagogical practices. Development of resource kits, mentoring networks, and flexible assessment tools will be essential. Ongoing action research should be embedded in CLC operations to ensure continuous feedback and adaptation. Stakeholders, including local governments and NGOs, must support policies that recognize and institutionalize learner-centered approaches.

Future research should explore how heutagogical models can be adapted for different demographic groups within CLCs, such as youth, women, and marginalized populations. Attention must also be given to digital tools that can support self-determined learning in low-resource settings. Strengthening partnerships between communities, educators, and policy advocates will be key to ensuring that heutagogy becomes a foundational element in non-formal education ecosystems.

CONCLUSION

Study reveals a pivotal finding that distinguishes it from previous works: the integration of heutagogical principles within non-formal education settings, particularly in Community Learning Centers (CLCs), significantly enhances learners' autonomy, capacity-building, and adaptability. The participatory action research process demonstrated that learners were not merely recipients but active agents in shaping their educational pathways, leading to increased engagement and context-relevant learning outcomes.

The main contribution of this research lies in the development of a participatory heutagogical model tailored for non-formal education contexts. This model synthesizes self-determined learning with collaborative community practices, offering a practical framework that educators and CLC facilitators can adopt to promote lifelong learning. The study thus advances heutagogical theory by situating it within grassroots educational environments and offering methodological guidance for its implementation.

One notable limitation of the study is its contextual focus on a specific set of CLCs, which may not fully capture the diverse realities of non-formal education in other regions or cultural contexts. Future research should consider comparative studies across varied socio-cultural settings to test the transferability of the model and explore the integration of digital tools to support heutagogical learning in resource-limited environments.

AUTHOR CONTRIBUTIONS

Samantha Gonzales: Conceptualization; Project administration; Validation; Writing - review and editing; Conceptualization; Data curation; In-vestigation.

Carloz Fernandez: Data curation; Investigation; Formal analysis; Methodology; Writing - original draft.

Li Wei: Supervision; Validation; Other contribution; Resources; Visuali-zation; Writing - original draft.

CONFLICTS OF INTEREST

No conflict interest

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