

SILFA Model Approach Development for Women Artisans' Education and Empowerment: Integrating Karawo Cultural Heritage into Non-Formal Learning

Silfana Abdul¹, Abd Hamid Isa¹, Mohamad Zubaidi^{1*}, Misran Rahman¹, Sri Nurhayati²,
Gumpnat Boriboon³, Udeme Samuel Jacob⁴

¹Nonformal Education Postgraduate Program, Gorontalo State University, Indonesia

²Community Education Postgraduate Program, IKIP Siliwangi, Indonesia

³Lifelong Learning and Adult Education Department, Srinakharinwirot University, Thailand

⁴Special Education Department, University of Ibadan, Nigeria

✉ Author Corresponding: zubeth@ung.ac.id

ABSTRACT

Women artisans in rural areas face persistent barriers in accessing education and achieving economic empowerment, particularly when their livelihoods rely on sustaining fragile cultural heritage traditions. This study developed and piloted the SILFA Model Approach for Women Artisans' Education and Empowerment, integrating Karawo cultural heritage into non-formal learning. The model aims to provide a culturally grounded learning framework that enhances skills, knowledge, and socio-economic agency while preserving heritage identity. Employing a Research and Development design guided by the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation), the research involved thirty women artisans in Pongongaila Village, Gorontalo, Indonesia, with ten participating in a small-group pilot implementation. Quantitative data from pre- and post-tests were analyzed using descriptive statistics, while qualitative data from focus group discussions, reflections, and observations were interpreted through thematic analysis. Results showed a substantial improvement in knowledge and skills, with mean scores increasing from 47.4 to 80.4. Participants also reported heightened confidence, creativity in developing new Karawo motifs, adoption of digital marketing, and motivation to establish cooperative groups. Conceptually, the SILFA Model contributes to theories of women's empowerment and culture-based education by operationalizing sustainability, interactivity, and identity-preserving principles within a participatory non-formal learning context. As a validated pilot framework, it demonstrates how embedding cultural heritage in non-formal education can simultaneously revitalize Karawo traditions and strengthen women's educational and economic empowerment in rural communities.

Keywords: SILFA Model Approach; Women Artisans; Karawo Cultural Heritage Non-Formal Learning; Empowerment.



Article History:

Received: 28-08-2025

Revised : 08-11-2025

Accepted: 14-11-2025

Online : 13-12-2025

How to Cite (APA style):

Abdul, S., Isa, A. H., Zubaidi, M., Rahman, M., Nurhayati, S., Boriboon, G., & Jacob, U. S. (2025). SILFA Model Approach Development for Women Artisans' Education and Empowerment: Integrating Karawo Cultural Heritage into Non-Formal Learning. *IJECA (International Journal of Education and Curriculum Application)*, 8(3), 297-309. <https://doi.org/10.31764/ijeca.v8i3.34374>



This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license

1. INTRODUCTION

The empowerment of women through education and economic participation has emerged as one of the most pressing global development priorities, particularly in rural contexts where systemic inequalities intersect with cultural, social, and structural barriers. Women artisans in

such settings often face marginalization due to entrenched gender norms, economic dependency, and limited access to training and resources. Non-formal education has been widely recognized as a critical pathway to address these gaps, providing flexible and contextually appropriate avenues for skill development, capacity building, and economic independence (Fitriana & Nurhayati, 2024; Kicherova et al., 2022). In this regard, rural artisan communities where craft production not only sustains livelihoods but also embodies cultural identity constitute a unique site for intervention. As the literature suggests, integrating heritage practices with educational and empowerment programs holds the potential to simultaneously preserve cultural identity and foster socio-economic transformation (Avendano-Rito et al., 2024; Nurhayati et al., 2025).

Despite these opportunities, multiple challenges remain. Women artisans often find themselves excluded from mainstream empowerment programs due to socio-cultural expectations that prioritize domestic roles over entrepreneurial or educational pursuits (Mumbire, 2024). Financial limitations, lack of infrastructure, and inadequate educational preparation further constrain their capacity to engage in non-formal learning initiatives (Hajiyeve et al., 2025; Nurhayati et al., 2023). Within these structural disadvantages, cultural heritage crafts such as embroidery, weaving, and appliqué once sources of community prestige and economic resilience are increasingly threatened by commodification, market instability, and generational disinterest (Thounaojam & Ojha, 2025). These dynamics necessitate innovative empowerment models that not only deliver skills and knowledge but also protect, preserve, and elevate heritage traditions as viable sources of sustainable development.

The central research problem addressed in this study is the absence of an integrated, culturally rooted non-formal education framework capable of addressing the intersecting challenges rural women artisans face. Existing empowerment programs often operate in silos, emphasizing either entrepreneurial skill-building or cultural preservation, but rarely combining the two into a coherent pedagogical approach. This fragmentation limits impact, as artisans require not only technical expertise but also socio-cultural recognition, collective support, and long-term sustainability strategies. General solutions proposed in the literature include policy support, financial inclusion, and digital literacy initiatives (Gupta et al., 2025; Iis et al., 2025; Subramani et al., 2025). However, these strategies remain insufficient if detached from the cultural contexts in which artisans live and create. Without deliberate integration of cultural heritage into empowerment frameworks, interventions risk being externally imposed, poorly contextualized, and ultimately unsustainable (Nurhayati et al., 2024; Ordoñez et al., 2024).

Scholars have highlighted several pathways that could address this gap. Collective organization, particularly through women's self-help groups and cooperatives, has been effective in overcoming socio-cultural and financial barriers, while also fostering solidarity and leadership (Nursanti & Nurhayati, 2024; Semkunde et al., 2022). Similarly, digital platforms offer new opportunities for artisans to access markets, financial services, and skill development, thereby extending the reach of traditional crafts into global value chains (Musa et al., 2022; Nurhayati et al., 2020; Patel et al., 2018). Policy interventions in India and other contexts further demonstrate that targeted institutional support can significantly enhance women's participation in entrepreneurial ecosystems (Gupta et al., 2025). These examples underscore the importance of multi-dimensional strategies that combine economic, social, and cultural dimensions in promoting empowerment.

Within this landscape, the integration of cultural heritage into empowerment and livelihood programs has emerged as a particularly promising strategy. Research across regions demonstrates that heritage-based crafts can yield substantial economic and social benefits. The

embroidery of tehuana costumes in Oaxaca and the Khatwa appliqué in Bihar are notable examples where traditional textiles have become not only sources of financial independence but also vehicles for enhancing women's community status and identity (Avendano-Rito et al., 2024). In Indonesia, textile-based entrepreneurship has been shown to increase women's incomes by more than seven percent within three years, while cultural tourism initiatives in China further illustrate how heritage crafts can diversify women's livelihoods (Aryandari et al., 2025; Su et al., 2023). Such findings provide evidence that when empowerment initiatives are rooted in cultural identity, they can simultaneously advance economic resilience and social transformation.

Beyond economic outcomes, cultural heritage crafts have also been linked to social and psychological empowerment. Studies from Ethiopia, Peru, and Israel reveal that engagement in traditional textile practices enhances women's confidence, social standing, and sense of identity (Getachew et al., 2025). These intangible benefits are critical, as they reinforce women's agency and collective voice, thereby enabling more durable empowerment outcomes. Nevertheless, challenges persist, including material shortages, digital divides, and socio-cultural stereotypes that undermine artisans' full participation (Ashalatha & Devadiga, 2024; Taufikin et al., 2025). Addressing these barriers requires systematic frameworks that integrate empowerment principles with participatory, identity-preserving practices.

Theoretical frameworks in community-based and non-formal education provide valuable guidance for designing such interventions. Freire's pedagogy, Arnstein's Ladder of Participation, and ecological-psychopolitical models emphasize empowerment, participation, and collaboration as central to sustainable transformation (Zhang & Perkins, 2023). Service-learning and experiential education frameworks further highlight the importance of interactivity and context-specificity in fostering meaningful engagement (Sarah & Nurhayati, 2024; Taufikin et al., 2025). In Indonesia and elsewhere, non-formal education has demonstrated its potential to enhance equality, community development, and economic resilience (Shofwan, 2019; Yasri et al., 2025). Yet despite these insights, there remains a striking gap in the application of these frameworks to the empowerment of women artisans through cultural heritage integration.

In parallel, the ADDIE instructional design model offers a robust methodology for systematically developing and evaluating training modules. Widely used in adult education and professional development, ADDIE provides a structured process of analysis, design, development, implementation, and evaluation that ensures both pedagogical rigor and contextual relevance (Patel et al., 2018). Its adaptability has been demonstrated in contexts ranging from digital learning to agricultural training, with inclusive adaptations enhancing its cultural sensitivity (Asilo et al., 2024). For empowerment initiatives, ADDIE's strength lies in its iterative nature, allowing continuous refinement based on learner feedback and contextual needs (McMonigle et al., 2024). Despite its widespread use, however, few studies have applied ADDIE to the development of cultural heritage-based empowerment programs for rural women artisans, representing a clear research gap.

Taken together, the literature reveals persistent shortcomings in current empowerment research and practice. Many models fall short in ensuring sustainability, often emphasizing individual rather than collective empowerment and neglecting structural dimensions such as community institutions and cultural identity (Vasishta & Singla, 2025). Interactive, participatory approaches remain underutilized, resulting in top-down interventions with limited local ownership (Röger-Offergeld et al., 2023). Identity-preserving principles are frequently overlooked, diminishing the cultural resonance and long-term impact of empowerment programs (Mitroi et al., 2016). Measurement practices further compound these limitations, with weak

operationalization and narrow frameworks that fail to capture the multidimensionality of empowerment (Desai et al., 2022).

Building upon these gaps, the present study introduces a novel theoretical and practical contribution through the development and pilot validation of the SILFA Model Approach for women artisans' education and empowerment. Conceptually, the SILFA framework advances theories of women's empowerment and culture-based education by demonstrating how empowerment can be operationalized through the integration of sustainability, interactivity, and identity-preserving principles within non-formal learning. Specifically, it bridges the divide between pedagogical design and cultural revitalization by positioning Karawo embroidery, a cultural heritage of Gorontalo, Indonesia, as a transformative educational medium that nurtures agency and socio-cultural resilience. Guided by the ADDIE instructional design model, the study employed an R&D approach to design, validate, and pilot-test this model, focusing on its feasibility and contextual relevance for rural artisans. The research was guided by four objectives: to identify the learning needs of Karawo artisans, to design a SILFA-based non-formal education module, to validate it through expert review, and to evaluate its preliminary implementation in a small-group pilot. The theoretical significance of this study lies in demonstrating how culturally grounded, participatory education frameworks can sustain traditional crafts while strengthening women's empowerment through non-formal learning. In doing so, it supports the preservation of Karawo cultural heritage as a living educational and economic resource for rural development (Mariappen, 2022; Nurhayati & Judijanto, 2025).

2. METHODS

This study employed a Research and Development (R&D) design guided by the ADDIE instructional design model (Analysis, Design, Development, Implementation, and Evaluation) (Nurhayati et al., 2025). The methodological approach was conceptually aligned with the study's theoretical underpinnings Freire's participatory pedagogy, Arnstein's Ladder of Participation, and ecological-psychopolitical models which emphasize empowerment, collaboration, and contextual learning. The ADDIE model operationalized these theoretical principles by structuring each phase to ensure sustainability, interactivity, and identity preservation, reflecting the core tenets of the SILFA framework. The R&D design was chosen because the central aim of the research was not only to investigate existing challenges but also to develop, validate, and evaluate a new instructional product the SILFA Model Approach for women artisans' empowerment through non-formal learning. Unlike purely descriptive or experimental designs, R&D provides a systematic framework for producing an educational module that can be iteratively refined through expert validation and field testing. The ADDIE model, widely recognized in instructional design and adult learning contexts (Patel et al., 2018), ensured that the training module was grounded in learners' needs, pedagogically coherent, and subjected to rigorous evaluation. This design was therefore appropriate for addressing the research questions, which sought to determine how an integrated cultural-heritage-based non-formal learning model could be conceptualized, validated, and assessed for its effectiveness in empowering rural women artisans.

The study focused on women artisans in Pongongaila Village, Gorontalo, Indonesia, who are engaged in the traditional embroidery craft of Karawo. Sampling was conducted in two stages. First, 30 women artisans were recruited to participate in the needs analysis phase. Participants ranged in age from 24 to 56 years, with an average of 10 years of experience in Karawo production. All were housewives with elementary-level formal education and part-time involvement in

embroidery production. This purposive sampling was chosen because the participants directly represented the intended beneficiaries of the intervention rural women artisans whose livelihoods depend on sustaining cultural heritage crafts. In the second stage, a small group implementation trial was conducted with 10 artisans selected from the initial cohort. Selection criteria for this subsample included (1) willingness to participate fully in the two-day training, (2) basic literacy skills, and (3) representation of diverse skill levels from novice to expert artisans to ensure balanced perspectives. This subsample was chosen to represent varying levels of skill and experience in Karawo production, ensuring diversity within the trial group. The purposive approach was justified because the research sought to generate insights from those most directly affected by the intervention, rather than producing statistically generalizable results. The focus was on developing and refining a context-specific model, which is consistent with R&D methodologies.

Data collection was carried out in four main stages aligned with the ADDIE cycle. (1) Needs Analysis: Data were gathered through structured interviews, focus group discussions, and direct observation of artisans' practices. These methods provided insights into socio-economic challenges, skill gaps, and aspirations related to Karawo embroidery; (2) Expert Validation: To establish the accuracy and relevance of the training module, validation sheets were completed by three independent experts in empowerment, training, and language. Each expert reviewed Draft 1 of the module and provided feedback on content accuracy, clarity, language appropriateness, and practical feasibility; (3) Implementation Trial: The small group trial was conducted over two days, consisting of five sessions (opening, enabling, empowering, protecting, and evaluation). Data were collected through pre-test and post-test assessments (20 multiple-choice items measuring knowledge, skills, and attitudes), direct observation during training, and reflective discussions with participants at the conclusion of the sessions; and (4) Supplementary Instruments: Additional tools included participant worksheets, portfolios of embroidery products created during the training, and digital records of simulation exercises in financial management and digital marketing. This multimethod approach ensured triangulation of data, allowing the research to capture both quantitative learning outcomes and qualitative reflections on empowerment experiences. Quantitative data from the pre-test and post-test were analyzed using descriptive statistics to calculate means, percentages, and improvement scores. In addition, qualitative data from interviews, observations, and reflections were systematically analyzed through thematic coding following [Braun & Clarke's \(2006\)](#) six-step framework familiarization, initial coding, theme generation, review, definition, and reporting. Integration of both data types was achieved through a mixed-method interpretation matrix that linked numerical improvement with emergent empowerment themes, strengthening construct validity and interpretive robustness. Combining statistical and thematic analyses provided a holistic understanding of how the module influenced both cognitive and socio-emotional dimensions of empowerment.

Several measures were taken to ensure the validity and reliability of the study. Content validity was secured through expert validation, where three specialists independently reviewed the module. Their feedback confirmed that the content aligned with learning objectives and was appropriate for the target audience, with only minor revisions required. Reliability was addressed by standardizing the pre-test and post-test instruments, piloting the items before use, and ensuring consistency in scoring procedures. In addition, methodological triangulation was complemented by data triangulation (multiple participants and instruments) and theoretical triangulation (linking results to empowerment and learning theories), ensuring conceptual coherence between the SILFA model and its empirical testing. Triangulation of data

sources quantitative assessments, observations, and participant reflections helped strengthen internal validity by reducing the likelihood of bias from any single method.

The study adhered to standard ethical principles in educational research. Prior to participation, all women artisans were informed of the study's purpose, procedures, and expected outcomes, and informed consent was obtained verbally and in writing. Participation was voluntary, with the option to withdraw at any time without penalty. Confidentiality was ensured by anonymizing participant names in data records and publications. To enhance clarity and visual comprehension, a research process flowchart illustrating the ADDIE stages and corresponding SILFA activities was added (Figure 1). This figure summarizes the sequential and iterative nature of the research design.

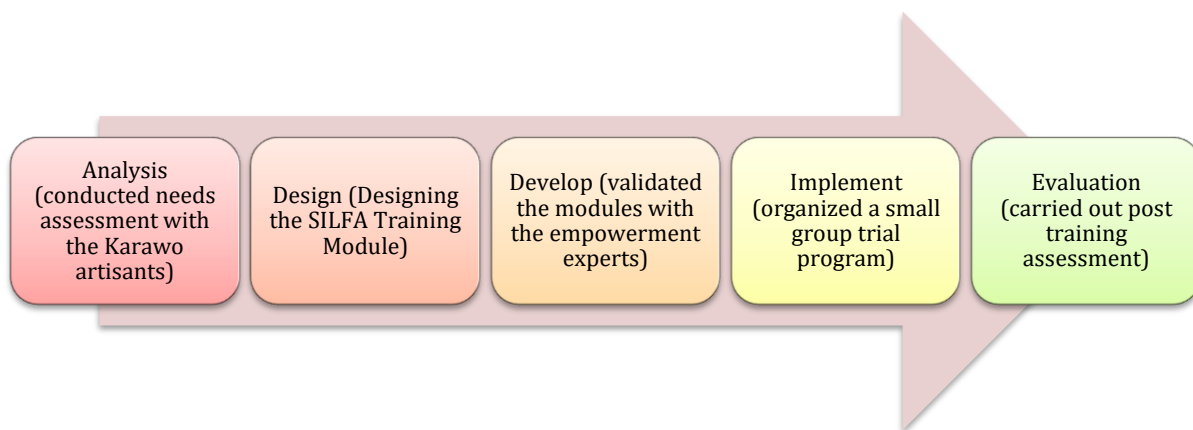


Figure 1. Research Process Flowchart

3. RESULT AND DISCUSSION

3.1 Analysis Phase

The first stage of the ADDIE framework involved a comprehensive needs analysis, which was critical in diagnosing the socio-economic, cultural, and educational challenges faced by women artisans in Pongongaila Village. This phase combined surveys, interviews, focus group discussions, and direct observation, ensuring triangulation of data and context-sensitive insights. The results confirmed that women artisans were situated within a highly constrained environment. Many participants were housewives with limited formal education, restricting their ability to fully engage in formal entrepreneurship training. While this reflects global patterns (Albaddawi, 2024), the emphasis in this study rests on the unique socio-cultural setting of Gorontalo, where Karawo embroidery constitutes both economic livelihood and cultural expression. Most respondents reported financial exclusion, absence of market literacy, and a lack of legal awareness. These localized findings underline the SILFA principle of *Sustainability*, as artisans sought livelihood continuity grounded in heritage rather than dependency on external markets.

Cultural contexts further shaped training needs. Participants consistently emphasized that Karawo embroidery was more than an economic activity; it was a cultural identity marker and an intergenerational practice that signified local pride. In the local context, this finding illustrates the SILFA element of *Interactivity*, as artisans conceptualized learning as a shared social activity connecting generations and preserving cultural pride. Karawo's significance underlined the necessity of integrating heritage into any empowerment intervention. Yet artisans also acknowledged generational disinterest among younger women, reflecting global concerns about the commodification and decline of indigenous textiles (Ramkumar & Dias, 2023).

Socio-economic pressures emerged strongly in interviews. Participants described their dependence on irregular household income, lack of bargaining power against middlemen, and weak collective organization. These challenges reflected systemic patterns of rural economic dependency, reinforcing the SILFA dimensions of *Learning* and *Aspiration*, where training was perceived as a vehicle for both knowledge acquisition and future-oriented self-improvement. The women expressed strong motivation for training, consistent with Nigerian apprenticeship studies that showed economic aspirations as a driver of participation (Adah et al., 2025). The analysis phase revealed that the artisans' training needs were shaped by both cultural heritage and socio-economic vulnerability. This duality between vulnerability and resilience directly informed the theoretical mechanism of empowerment within the SILFA framework linking experiential learning to social agency transformation.

3.2 Design Phase

Based on the needs assessment, a Draft 1 training module was designed, following ADDIE's structured instructional design process. The module incorporated seven chapters, structured across a two-day training program with five key sessions: (1) opening and orientation, (2) enabling (critical awareness and potential mapping), (3) empowering (technical and entrepreneurial strengthening), (4) protecting (institutional and legal safeguarding), and (5) evaluation. The design principles were guided by best practices in instructional design, particularly the ADDIE model (Asilo et al., 2024). The theoretical grounding of this phase lies in the integration of participatory and transformative learning concepts, in which empowerment emerges through dialogue, reflection, and shared problem-solving core aspects of Freirean pedagogy operationalized within the SILFA structure. Clear learning outcomes were articulated, including the development of new embroidery motifs, improved knowledge of financial management, adoption of digital marketing practices, and awareness of cooperative and legal structures.

Complementary frameworks were integrated to ensure inclusivity and accessibility. Universal Design for Learning (UDL) principles Lee & Griffin (2021) informed the creation of multiple means of engagement, including visual aids, practice worksheets, and interactive discussions. Non-linear instructional elements enabled participants with diverse educational backgrounds to revisit key concepts. Furthermore, participatory and experiential approaches were emphasized, aligning with evidence that interactive strategies and real-world practice enhance empowerment (Kosmawan & Nurhayati, 2025; Rohaeni & Nurhayati, 2025). The design phase operationalized the SILFA model's *Learning* and *Fun* principles, emphasizing enjoyment and creativity as mechanisms of self-efficacy and identity preservation. In practice, the design emphasized participatory learning, where artisans co-created outputs rather than passively receiving information. Simulations of business management, role-plays in digital promotion, and collaborative design of embroidery motifs ensured active involvement. These methods mirrored best practices identified in South African empowerment incubators and participatory adult education models (Karwati & Nurhayati, 2024; Nurhayati, Tersta, et al., 2024). Thus, the design phase produced a comprehensive empowerment curriculum that integrated cultural heritage with entrepreneurial and digital competencies, framed by SILFA's principles of sustainability, engagement, and aspiration.

3.3 Development Phase (Validation)

Following the initial design, the Draft 1 module was subjected to expert validation by three independent specialists in the fields of empowerment, training, and language. This validation ensured both content validity and practical usability. The experts confirmed that the module content was highly relevant and culturally appropriate, requiring only minor revisions. Specifically, the empowerment expert emphasized the need to adjust language for accessibility to housewives with minimal formal education. The training expert recommended clearer facilitator criteria and expanded guidelines on session delivery, while the language expert advised on correcting minor grammatical inconsistencies. This phase strengthened the *Sustainability* and *Learning* dimensions of the SILFA model by reinforcing linguistic inclusivity and contextual clarity as foundations for continuous community-based learning. The validation process aligns with best practices in R&D module development, where structured expert judgment and competence indices are essential for ensuring reliability (Gutiérrez-Castillo et al., 2023). Furthermore, iterative refinement based on expert feedback follows international models of module validation, where Aiken's V coefficient or equivalent standards are applied to confirm validity prior to pilot testing (Pilendia & Amalia, 2020). The outcome of this phase was Draft 2 of the module, which incorporated expert recommendations while retaining the SILFA and ADDIE foundations. The validation not only enhanced credibility but also improved the usability and accessibility of the module, ensuring that it was aligned with participants' literacy levels and cultural realities.

3.4 Implementation Phase

The implementation phase involved piloting the validated module with a small group of 10 artisans from Pongongaila Village, conducted over two days in August 2025. Each day consisted of multiple sessions that sequentially addressed enabling, empowering, and protecting dimensions of empowerment. The learning process reflected SILFA's *Fun* and *Aspirational* components, where interactive practice fostered confidence and creativity, transforming passive learning into active co-construction. The training methods included interactive lectures, group discussions, hands-on embroidery practice, business management simulations, and digital promotion exercises. Media used included printed modules, presentation slides, Karawo materials, and smartphones for digital marketing. These approaches aligned with global best practices, where participatory learning, technical training, and continuous mentorship are essential for empowerment (Musa et al., 2025). The artisans demonstrated strong engagement and enthusiasm throughout. During the enabling session, participants reflected on the economic significance of Karawo and articulated personal goals. In the empowering session, they successfully created new motif variations, practiced bookkeeping, and simulated pricing strategies. In the protecting session, discussions emphasized the necessity of cooperative structures and the benefits of legal registration (NIB/UMKM). These experiences provided practical evidence of learning transformation as theorized in empowerment literature where reflective practice and collaborative dialogue shift self-perception from dependency to agency. These results mirrored findings from Zanzibar's handicraft project and South African workshops, which highlighted the importance of linking technical skills with business management for sustainable empowerment (Arko-Achemfuor & Cheng, 2019). Moreover, the artisans' increased interest in digital marketing resonated with evidence from Indonesia and Peru, where digital literacy expanded market opportunities (Nurhayati, Indah, et al., 2025; Nurhayati, Munggarani et al., 2025; Nurhayati, Nurjaman et al., 2024; Suryani et al., 2025).

3.5 Evaluation Phase

To assess effectiveness, pre-test and post-test instruments consisting of 20 items were administered. The average pre-test score was 47.4, while the average post-test score reached 80.4, indicating an average gain of 33 points. This quantifiable progress reflects the internal coherence of the SILFA model, as the learning outcomes aligned with its core mechanisms of iterative reflection and experiential practice. This improvement demonstrated a substantial enhancement in knowledge, technical capacity, and awareness within just two days of training. The findings confirm the value of pretest posttest designs in empowerment contexts, as also evidenced in health and social interventions for women across diverse settings (Khademi & Kaveh, 2025). Qualitative reflections further reinforced these results. Participants reported increased self-confidence, collective motivation, and recognition of Karawo as an economic asset. Some articulated plans to establish a cooperative group, echoing the importance of collective action highlighted in global empowerment literature (Semkunde et al., 2022). Artisans also emphasized the value of digital marketing training, noting its potential to expand their reach beyond local markets, consistent with findings in Kashida crafts and Indonesian MSMEs (Nurhayati, Judijanto et al., 2025; Nurmawati et al., 2021; Rahmawan & Nurhayati, 2025). The evaluation thus confirmed that the SILFA module effectively enhanced three critical empowerment dimensions: (1) Enabling – increasing awareness of personal and collective potential; (2) Empowering – building technical, managerial, and digital skills; (3) Protecting – fostering legal literacy and institutional safeguarding.

The overall results demonstrate that the SILFA Model Approach, developed through the ADDIE framework, successfully integrates cultural heritage into non-formal education for women artisans. The empirical evidence shows measurable improvements in knowledge and skills, as well as qualitative transformations in attitudes, confidence, and collective aspirations. These findings align with global studies emphasizing the multidimensional benefits of cultural heritage integration in empowerment programs (Jiawei & Sangiamvibool, 2025). They also confirm that participatory, interactive, and sustainability-oriented approaches can overcome structural barriers, providing a replicable and scalable model for women's empowerment in similar cultural contexts.

4. CONCLUSION

This study addressed the challenge of designing non-formal educational interventions that enhance women's socio-economic agency while preserving cultural heritage. Focusing on Karawo artisans in Pongongaila Village, the research developed and piloted the SILFA Model Approach, a framework structured through ADDIE and based on the principles of Sustainability, Interactivity, Learning, Fun, and Aspiration. Empirical findings showed significant improvement in artisans' knowledge, confidence, and creative capacity, confirming the model's effectiveness in linking empowerment with heritage-based learning. Theoretically, the SILFA Model contributes to the frameworks of women's empowerment and culture-based education by operationalizing participatory and transformative learning as mechanisms of agency building and identity preservation. Practically, the model demonstrates how cultural crafts can serve as adaptive tools for sustainable livelihood and collective organization. This integration of pedagogy, culture, and empowerment adds conceptual depth to existing empowerment theories. While this study provides a strong pilot validation, its scope was limited to a small group and short implementation period, restricting generalizability. Future research should employ longitudinal and multi-regional studies to test scalability and sustained impact. Policy makers and educators are

encouraged to integrate the SILFA framework into rural empowerment and heritage programs to reinforce women's education and cultural continuity. Ultimately, the SILFA model underscores that empowerment and heritage preservation are mutually reinforcing processes essential for rural resilience and sustainable development.

REFERENCES

- Adah, C. A., Daniel, E. I., & Tunji-Olayeni, P. (2025). The experience of women in construction craftspeople apprenticeship programmes in Nigeria. *Proceedings of Institution of Civil Engineers: Management, Procurement and Law*, 178(2), 83–93. <https://doi.org/10.1680/jmapl.24.00029>
- Albaddawi, E. A. (2024). Advancing Women's Empowerment: Influential Factors in The Educational Sector of Jordan. *Journal of Women's Entrepreneurship and Education*, 2024(1–2), 248–269. <https://doi.org/10.28934/jwee24.12.pp248-269>
- Arko-Achemfuor, A., & Cheng, M. (2019). Capacity building in small business management for new literates through action research. *Cogent Education*, 6(1). <https://doi.org/10.1080/2331186X.2019.1643443>
- Aryandari, C., Hazmi, F. A., & Damayanti, H. R. (2025). An Analysis of the Functional Role of Women's Empowerment in Textile Craft Entrepreneurship in Indonesia; Qualitative Study. *Asian Journal of Human Services*, 28, 111–125. <https://doi.org/10.14391/ajhs.28.111>
- Ashalatha, K., & Devadiga, S. (2024). The Study on Challenges Faced by the Women Weaver's in Udupi Taluk. *Journal of the Textile Association*, 84(5), 337–341. <https://doi.org/10.5281/zenodo.10634310>
- Asilo, E. C., Laranas, J. S., & Decena, F. L. C. (2024). Designing Technology-Based e-Learning for Adult Education in the Philippine Agriculture Sector: The PCAARRD Advanced Learning Management System Experience. *SN Computer Science*, 5(5). <https://doi.org/10.1007/s42979-024-02966-3>
- del Carmen Avendano-Rito, M., Miriam Arango-Ramirez, P., & Martinez-Vargas, A. (2024). Threads Of Identity: Contributions Of The Tehuana Embroiderers Social, Economic, And Cultural Impact Of Women In Juchitán, Oaxaca (Mexico). *Prisma Social*, 47, 121–144. <https://revistaprismasocial.es/ps/article/view/5601>
- Desai, S., Chen, F., Reddy, S., & McLaughlin, A. (2022). Measuring Women's Empowerment in the Global South. *Annual Review of Sociology*, 48. <https://doi.org/10.1146/annurev-soc-030420-015018>
- Fitriana, D., & Nurhayati, S. (2024). Improving Santri's Entrepreneurship Motivation Through Problem-Based Learning Approach Entrepreneurship Training. *Empowerment: Jurnal Ilmiah Program Studi Pendidikan Luar Sekolah*, 13(2), 122–130. <https://doi.org/https://doi.org/10.22460/empowerment.v13i2.2867>
- Getachew, T., Alemu, C., & Wudu, H. (2025). The challenges and opportunities of women working in weaving cultural clothes at Bahir-Dar City, Bahirdar, Ethiopia. *Discover Global Society*, 3(1). <https://doi.org/10.1007/s44282-025-00139-y>
- Gupta, M., Rungta, D., Awasthi, Y., & Singh, S. (2025). Opportunities for women's rural entrepreneurship in deprived rural environments: Empowering the pathway for women entrepreneurs in rural environments. In *Entrepreneurial Opportunities in Disadvantaged Rural Communities* (pp. 355–391). <https://doi.org/10.4018/979-8-3373-0214-0.ch012>
- Gutiérrez-Castillo, J. J., Palacios-Rodríguez, A., Martín-Párraga, L., & Serrano-Hidalgo, M. (2023). Development of Digital Teaching Competence: Pilot Experience and Validation through Expert Judgment. *Education Sciences*, 13(1). <https://doi.org/10.3390/educsci13010052>
- Hajiyeva, N., Ferdous, J., & Aliyeva, A. (2025). Entrepreneurial struggles: Exploring the practices and challenges of women entrepreneurs in Azerbaijan. In *Sustainable Entrepreneurship and Family Business for Women's Empowerment* (pp. 107–122). <https://doi.org/10.4018/979-8-3693-8694-1.ch006>
- Iis, I., Nurhayati, S., Kartika, P., & Ahsan, M. H. (2025). Socio-Economic Empowerment Through

- Community-Based Sheep Farming Programs In Islamic Rural Societies. *Ijtimaiyya: Jurnal Pengembangan Masyarakat Islam*, 17(2), 1–24. <https://doi.org/https://dx.doi.org/10.24042/ijpmi.v17i2.24572>
- Jiawei, Z., & Sangiamvibool, A. (2025). Empowering Artists and Preserving Heritage the Role of Community-Led Initiatives in the Jade Industry in China. *Pakistan Journal of Life and Social Sciences*, 23(1), 135–150. <https://doi.org/10.57239/PJLSS-2025-23.1.0012>
- Karwati, T., & Nurhayati, S. (2024). Enhancing Child Development through Senam Profil Pelajar Pancasila: A Case Study in Indonesian Early Childhood Education. *Jurnal Ilmiah Profesi Pendidikan*, 9(1), 334–344. <https://doi.org/https://doi.org/10.29303/jipp.v9i1.2065>
- Khademi, K., & Kaveh, M. H. (2025). A pioneering health education strategy based on the PRECEDE-PROCEED model for women's health challenges: a systematic review and logic framework. *BMC Women's Health*, 25(1). <https://doi.org/10.1186/s12905-025-03883-0>
- Kicherova, M. N., Efimova, G. Z., & Gertsen, S. M. (2022). Non-Formal Education as a Resource of Social Inclusion: Intergenerational Approach. *Changing Societies and Personalities*, 6(4), 823–840. <https://doi.org/10.15826/csp.2022.6.4.205>
- Kosmawan, H., & Nurhayati, S. (2025). The Effectivity Of Dual Fundamental Characters Training Using Blended Learning Approach To Improve Early Childhood Educators' pedagogical Competence. *Empowerment: Jurnal Ilmiah Program Studi Pendidikan Luar Sekolah*, 14(1), 99–108. <https://doi.org/https://doi.org/10.22460/empowerment.v14i1.2767>
- Lee, A., & Griffin, C. C. (2021). Exploring online learning modules for teaching universal design for learning (UDL): preservice teachers' lesson plan development and implementation. *Journal of Education for Teaching*, 47(3), 411–425. <https://doi.org/10.1080/02607476.2021.1884494>
- Mariappen, N. (2022). The future of development: How development strategy needs to transition for meaningful impact. In *Impact of Women's Empowerment on SDGs in the Digital Era* (pp. 1–19). <https://doi.org/10.4018/978-1-6684-3637-0.ch001>
- McMonigle, P., Wetzal, D. A., & Kern, S. C. (2024). Teaching Engineering Information Literacy with INCLUSIVE ADDIE. *ASEE Annual Conference and Exposition, Conference Proceedings*.
- Mitroi, L. R., Sahak, M., Sherzai, A. Z., & Sherzai, D. (2016). The Women's Health Care Empowerment Model as a Catalyst for Change in Developing Countries. *Health Care for Women International*, 37(3), 273–287. <https://doi.org/10.1080/07399332.2014.926903>
- Mumbire, R. (2024). Challenges and opportunities faced by rural women enterprises in Africa. In *Examining Barriers and Building Resiliency for Rural Women Entrepreneurs* (pp. 69–96). <https://doi.org/10.4018/979-8-3693-9178-5.ch003>
- Musa, S., Nurhayati, S., & Boriboon, G. (2025). The Effect of Internships on Graduates' Employability, Soft Skills, and Digital Competence. *Educational Process: International Journal*. <https://doi.org/https://doi.org/10.22521/edupij.2025.17.306>
- Musa, S., Nurhayati, S., & Zubaedah, R. (2022). Peningkatan Kompetensi Pemasaran Produk Warga Belajar Pusat Kegiatan Belajar Masyarakat Melalui Pelatihan Marketplace Dan Canva. *JMM (Jurnal Masyarakat Mandiri)*, 6(6), 4533. <https://doi.org/10.31764/jmm.v6i6.10912>
- Nurhayati, S., Dina, I., Boriboon, G., & Jacob, U. S. (2024). Harmonizing Cultural Literacy and Empowerment: A Community Education Approach through Angklung Public Class. *IJECA (International Journal of Education and Curriculum Application)*, 7(3), 404. <https://doi.org/10.31764/ijeca.v7i3.28004>
- Nurhayati, S., Fasa, M. I., Panjaitan, R., Indriyani, D., & Fadlyansyah, R. M. (2020). Digital Marketing Literacy for Marginalized Society To Improve Society'S Economic Empowerment. *The International Conference on Innovations in Social Sciences and Education*, 505–516. <https://conference.loupiasconference.org/index.php/ICoISSE/article/view/74>
- Nurhayati, S., Indah, A. J., & Ahsan, M. H. (2025). Exploring The Intersection Of Digital Tools And Community Education And Development: The Case Of Payung Geulis In Indonesia. *Masyarakat Madani: Jurnal Kajian Islam Dan Pengembangan Masyarakat*, 10(1), 73–96. <https://doi.org/http://dx.doi.org/10.24014/jmm.v10i1.35460>
- Nurhayati, S., Irama, C., Putri, A. P., Azizah, A. W., Fauzan Hakim, M. I., Jacob, U. S., Boriboon, G., &

- Taufikin, T. (2025). Museum-Based Cultural Education as a Vehicle for Community Empowerment and Cultural Literacy in Indonesia. *IJTIMAIYA: Journal of Social Science and Teaching*, 9(1), 95. <https://doi.org/10.21043/ji.v9i1.32069>
- Nurhayati, S., & Judijanto, L. (2025). Culturally Responsive Digital Numeracy Instruction in Indonesian Early Childhood Education: Integrating Indigenous Knowledge and Technology. *2025 International Conference on Smart Learning Courses (SCME)*, 152–158. <https://doi.org/10.1109/SCME62582.2025.11104859>
- Nurhayati, S., Judijanto, L., Sepriano, S., & Mahendra, G. S. (2025). *Technopreneurship*. PT. Green Pustaka Indonesia.
- Nurhayati, S., Judijanto, L., Sriwardiningsih, E., Syarifah, S., Juniarti, A. P., Hidayat, C., & Jakaria, Y. (2025). *Desain Riset dan Literasi Data*. Green Pustaka Indonesia.
- Nurhayati, S., Munggarani, F., Boriboon, G., Jacob, U. S., & Lotfi, F. Z. (2025). Adaptive Agripreneurship: How CSR Partnerships Empower Disabled Farmers for Economic Independence. *Prosperity: Journal of Society and Empowerment*, 5(1), 1–18. <https://doi.org/10.21580/prosperity.2025.5.1.25286>
- Nurhayati, S., Nurjaman, N., & Rukanda, N. (2024). Innovation, Empowerment, And Community Development: Comprehensive Analysis Of Rural Youth-Driven Coffee Production. *Masyarakat Madani: Jurnal Kajian Islam Dan Pengembangan Masyarakat*, 9(2), 235–253. <https://doi.org/10.24014/jmm.v9i2.32993>
- Nurhayati, S., Qudsi, N. A., Rukanda, N., & Fitri, A. (2023). Parents-School Strategic Collaborations in Early Childhood School From-Home Learning During the Pandemic. *AL-ISHLAH: Jurnal Pendidikan*, 15(1), 964–971. <https://doi.org/10.35445/alishlah.v15i1.2605>
- Nurhayati, S., Tersta, F. W., Karwanto, K., Mintarsih, M., Jasiah, J., Sulaiman, S., Mustapa, N., Sari, I. N., & Djamil, M. M. N. (2024). *Buku ajar pendidikan orang dewasa*. PT. Sonpedia Publishing Indonesia.
- Nurmawati, N., Nurhayati, S., & Noor, A. H. (2021). Improving Vocational High School Alumni Competitiveness Through Online Business Training. *Empowerment: Jurnal Ilmiah Program Studi Pendidikan Luar Sekolah*, 10(2), 160–167. <https://doi.org/https://doi.org/10.22460/empowerment.v10i2p160-167.2724>
- Nursanti, E. A., & Nurhayati, S. (2024). *Empowering Rural Women Entrepreneurs through Digital Marketing : Strategies for Household Business Growth*. 2(December), 9–20.
- Ordoñez, L. B. P., Tróchez, D. X. S., & Rengifo, E. F. (2024). Appropriation Of Economic And Financial Education For The Empowerment Of Rural Women Victims Of The Armed Conflict In The Department Of Cauca. *Revista de Gestao Social e Ambiental*, 18(3). <https://doi.org/10.24857/rgsa.v18n3-180>
- Patel, S. R., Margolies, P. J., Covell, N. H., Lipscomb, C., & Dixon, L. B. (2018). Using Instructional Design, Analyze, Design, Develop, Implement, and Evaluate, to Develop e-Learning Modules to Disseminate Supported Employment for Community Behavioral Health Treatment Programs in New York State. *Frontiers in Public Health*, 6. <https://doi.org/10.3389/fpubh.2018.00113>
- Pilendia, D., & Amalia, S. (2020). The development of powerpoint optimization training module as learning media: A validation study. *AIP Conference Proceedings*, 2215. <https://doi.org/10.1063/5.0000544>
- Rahmawan, A., & Nurhayati, S. (2025). Improving Micro, Small, and Medium Enterprise Owners' Marketing Skill Through Active Learning Based Digital Marketing Training. *Empowerment: Jurnal Ilmiah Program Studi Pendidikan Luar Sekolah*, 14(1), 223–230. <https://doi.org/https://doi.org/10.22460/empowerment.v14i1.3259>
- Ramkumar, B., & Dias, R. M. (2023). Sustaining traditional textile art among the Indigenous Nongtluh women of north-eastern India: An interpretative phenomenological analysis. *Fashion, Style and Popular Culture*, 10(4), 485–512. <https://doi.org/10.1386/fspc.00075.1>
- Röger-Offergeld, U., Kurfer, E., & Brandl-Bredenbeck, H. P. (2023). Empowerment through participation in community-based participatory research—effects of a physical activity

- promotion project among socially disadvantaged women. *Frontiers in Public Health*, 11. <https://doi.org/10.3389/fpubh.2023.1205808>
- Rohaeni, A., & Nurhayati, S. (2025). Improving Early Childhood Educator's Professional Competences Through In-House Early Childhood Creative Learning Training. *IKIP Siliwangi Bandung, Vol* 14(1). <https://doi.org/https://doi.org/10.22460/empowerment.v14i1.2800>
- Sarah, S., & Nurhayati, S. (2024). Enhancing Family Food Security Through Experiential Learning-Based Training In Organic Food Cultivation. *Jurnal Simki Pedagogia*, 7(1), 84–94. <https://doi.org/10.29407/jsp.v7i1.479>
- Semkunde, M. A., Elly, T., Charles, G., Gaddefors, J., & Chiwona-Karlton, L. (2022). Rural entrepreneurship and the context: navigating contextual barriers through women's groups. *International Journal of Gender and Entrepreneurship*, 14(2), 213–234. <https://doi.org/10.1108/IJGE-01-2021-0013>
- Shofwan, I. (2019). The impact of non-formal education in community development: A case study in Pati, Indonesia. *International Journal of Innovation, Creativity and Change*, 5(5), 339–352.
- Su, M. M., Wall, G., Ma, J., Notarianni, M., & Wang, S. (2023). Empowerment of women through cultural tourism: perspectives of Hui minority embroiderers in Ningxia, China. *Journal of Sustainable Tourism*, 31(2), 307–328. <https://doi.org/10.1080/09669582.2020.1841217>
- Subramani, S. D., Shreebalajee, S., Ziegen Balg, R. J., & Samundeswari, S. (2025). PARADISE Empowering Rural Artisans and MSMEs Through Technology-Driven Global Outreach. *2025 International Conference on Computing and Communication Technologies, ICCCT 2025*. <https://doi.org/10.1109/ICCCT63501.2025.11019784>
- Suryani, N., Nurhayati, S., Rakhman, A., & Boriboon, G. (2025). Strategic Digital Marketing For Micro, Small, Medium Enterprises (Msme): Enhancing Community Engagement And Economic Empowerment In Islamic Societies. *Ijtimaiyya: Jurnal Pengembangan Masyarakat Islam*, 17(2). <https://doi.org/https://doi.org/10.24042/ijpmi.v17i2.24097>
- Taufikin, T., Nurhayati, S., & Muhajarah, K. (2025). Da'wah in the TikTok era: Analyzing Gus Miftah's rhetoric, controversy, and community character education impact. *Jurnal Ilmu Dakwah*, 45(1), 87–106. <https://doi.org/10.21580/jid.v45.1.25646>
- Thounaojam, S., & Ojha, J. K. (2025). Exploring the Digital Spaces of Women Artisans in Kashida Crafts: Case Stories From Thar Desert of Western Rajasthan. *Journal of Asian and African Studies*. <https://doi.org/10.1177/00219096251313548>
- Vasishta, P., & Singla, A. (2025). Self-help groups and women empowerment: developing a framework for sustainability of SHGs. *International Journal of Social Economics*. <https://doi.org/10.1108/IJSE-05-2023-0389>
- Yasri, B., Firmansyah, V., Firmansyah, D. A., Nurhayati, S., Gianto, G., Mutmainnah, D. A., Lotfi, F. Z., Olugbade, D., Ahsan, M. H., & Boriboon, G. (2025). Learning By Living: Acculturation, Leadership, And Reflexivity In Banceuy's Informal Adult Education Ecosystem. *Prima Magistra: Jurnal Ilmiah Kependidikan*, 6(3), 293–307. <https://doi.org/https://doi.org/10.37478/jpm.v6i3.5680>
- Zhang, Y., & Perkins, D. D. (2023). Toward an Empowerment Model of Community Education in China. *Adult Education Quarterly*, 73(1), 21–39. <https://doi.org/10.1177/07417136211062252>