

An integrative pedagogical method for community-based financial education with a gender approach

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ABSTRACT

Through strategies such as project-based learning, gamification and collaborative learning, we seek to train women in the communities to manage their resources and make informed decisions. The methodology used is a mixed approach (quantitative-qualitative), interviews were conducted with professional trainers and surveys were applied to women in the Ecuadorian province of Esmeraldas. The results suggest that the method will mitigate the adverse economic consequences in affected communities. This guarantees access to education and fosters a culture of empowerment in the communities to face future challenges.

Keywords: Education; Finance; Teaching method; Virtual environments; Learning; Anthropogenic risks; Empowerment

Introduction

In an increasingly interconnected world, anthropic risks such as earthquakes, floods, pandemics, among others, have left deep traces in the economy and daily life of many communities. The need to reactivate these economies has become urgent, and financial education has become a crucial tool to achieve this goal. In this context, the use of a

pedagogical method for community financial education with a gender approach becomes an innovative and effective strategy.

This method not only facilitates access to financial knowledge, but also promotes the active participation of community members, fostering collaborative and adaptive learning. In addition, it explores how the implementation of these methodologies contributes to the economic resilience of communities, offering a comprehensive approach to empower individuals to manage their financial resources and make informed decisions.

Development

Theoretical Foundation

Financial education is defined as an informative, formative and advisory process that allows people to improve their wellbeing (Bonilla *et al.*, 2022). It consists of developing the ability to manage money effectively, which includes knowing how to save, invest, plan for the future, is essential for economic well-being and stability at both the individual and societal levels (Ramos, 2018). Through interactive workshops, seminars, and educational resources tailored to the specific needs of the community, the aim is to foster understanding of key concepts such as saving, investing, debt management, and medium- and long-term financial planning.

In addition, by involving members of the community in the learning process, we seek to create an environment of collaboration and mutual support, where shared experiences and knowledge enrich the financial education of all participants. This approach aims not only to improve the individual financial situation, but also to strengthen the economic well-being of the community as a whole, promoting a culture of responsibility and financial autonomy that will last over time.

The method integrates the fundamentals of digital pedagogy. These fundamentals provide a solid framework to guide the transformation of teaching and learning in digital environments. The personalization of learning and the integration of technology are key aspects that highlight the importance of adapting content and methodologies to the

individual needs of the subject, as well as redefining teaching practice to take advantage of digital tools effectively (Meléndez *et al.*, 2022).

When it comes to financial education, educational apps and platforms play a key role in the acquisition of knowledge and skills for smart personal finance management. These technological tools offer an accessible, interactive and personalized way to learn about financial concepts, from budget management to investing and saving. By leveraging these apps and platforms, users can improve their financial literacy, make informed decisions, and build a solid foundation for a stable and prosperous financial future.

Research with a blended nature, combines qualitative as well as quantitative elements in order to provide a holistic and in-depth understanding of the problem under investigation. This approach allows for a detailed and in-depth understanding of the experiences, perceptions and meanings of the sample.

The focus on the subject as the active protagonist of his or her own learning process underlines the relevance of prioritizing the acquisition of digital competencies and encouraging more meaningful participation in the educational process (Quiroga, 2020). In addition, continuous assessment and constant feedback are fundamental to monitor the subject's progress and improve the development of digital skills (Meléndez *et al.*, 2022).

In terms of application in virtual environments, digital pedagogy comes to life through platforms and tools designed to facilitate online teaching. The use of virtual learning environments and the promotion of interaction between teaching actors are key strategies to enrich the educational experience (Area, 2020). In addition, the incorporation of multimedia resources and interactive activities contributes to diversify teaching methods. Likewise, the implementation of formative assessments and the promotion of digital inclusion are aspects that guarantee equitable access to education through accessible virtual environments (Suárez & Gutiérrez, 2024).

Technology facilitates access to a wide range of online educational resources, such as applications, simulators, learning platforms and interactive tools, which allow financial concepts to be explored in a practical way and applied in simulated situations. In addition, technology provides the possibility of tracking progress in greater detail, offering instant and personalized feedback, and adapting content according to the level of knowledge and skills of each student (Meléndez *et al.*, 2022).

The descriptive technique was used in a detailed manner, with objectivity, no manipulation of variables or assumption of causal relationships. This method focuses on collecting accurate and real information about the characteristics, behaviors or events being studied, with the objective of providing a faithful and complete representation of the observed reality.

As techniques and tools, semi-structured interviews with professional trainers are used to obtain detailed perceptions on the experience acquired in working with virtual environments, challenges encountered and suggestions for improvement regarding financial education. In addition, the application of structured surveys to community women to collect quantitative data regarding the pedagogical integrative method.

In addition, the observation technique is used as a key method for data collection. This technique allows the researcher to directly observe the dynamics, interactions and behaviors of the families in their natural environment, which was carried out in a structured and systematic manner, allowing for the collection of valuable information on daily realities that might not be captured through surveys or interviews.

The combination of careful sample selection with the observation technique enriched the understanding of the realities faced by vulnerable families. It facilitated the identification of specific needs and the design of more effective interventions, promoting an inclusive approach that considers the particularities of each family.

The total population is constituted by 4,000 families, which represent a diverse sample of the community, covering different socioeconomic levels, family structures and cultural contexts. To carry out the research, the sample was selected in a purposive, discretionary and non-probabilistic manner, which implies that specific families were chosen that met certain predefined criteria. This approach focused on groups that could provide relevant information on vulnerability.

Among the vulnerability criteria used for sample selection, several important aspects were considered. First, the economic condition of the families was evaluated, analyzing their income level and access to basic resources such as food, housing and medical care. In addition, we took into account the effects that the families may have faced, such as the consequences of natural disasters, economic crises or health problems that impacted their quality of life.

Another relevant factor was the educational level of the family members, since this aspect affects the family's capacity to generate income and improve its situation. Finally, the situation of having more than two family members was considered, which includes dependents such as children, the elderly or people with disabilities, and families with multiple members who require special attention or additional resources.

This selection process was carried out in the Propicia 1 and 2 neighborhoods of Esmeralda's canton. In order to carry out this targeting, an open call was made to women, resulting in the registration of almost 400 interested persons. Finally, 60 women between the ages of 18 and 60 were selected for the application of the survey, who were part of the "Empowered and Solidarity Networks" project. And for the application of the interview, 5 professional trainers in the area of analysis were selected.

Main Results:

The analysis of the results obtained from the interviews conducted with 5 professional trainers reveals significant aspects. Most agreed that the application of an emerging integrative pedagogical approach is essential in the current context, especially after the crisis caused by the pandemic.

This approach allows a better adaptation to new teaching environments, facilitating the connection between different disciplines and educational resources, in addition, it was highlighted that an integrative method encourages the active participation of the people which is essential for effective learning of financial education. Interaction in forums, chats and other virtual platforms is considered vital for the development of critical skills of the subjects.

Interviewees also shared opinions in various ways on how to contribute to the issue of community financial education through a pedagogical approach; a key aspect is the development of relevant content that is accessible and pertinent to the communities they serve. Many professionals highlighted the fact that the creation of educational materials must necessarily be adapted to specific cultural contexts, and the training and education of other educators in the use of technological tools and integrative methodologies was mentioned as a priority.

This training not only improves the quality of teaching, but also empowers other educators to deliver financial education effectively; additionally, the generation of support networks among professionals and communities was identified as one of the most

significant contributions. Through collaboration, resources, experiences and best practices can be shared, enriching the teaching-learning process.

However, some challenges faced by professional trainers, such as lack of training or limited resources in some communities, are obstacles that still persist. In addition, resistance to change was mentioned, as some educators and community members may show resistance to adopting new pedagogical methods. This requires additional effort to demonstrate the benefits of inclusive financial education.

Regarding the importance of developing innovative pedagogical methods, interviewees agreed that innovation is key to maintaining interest and improving understanding of financial concepts. They highlighted that other methods such as role-playing, the use of simulators and problem-based learning can contribute significantly to creating a richer and more effective learning experience. In addition, they emphasized that financial education is fundamental in the formation of responsible and critical citizens, which underlines the need to constantly update pedagogical strategies in this field, both demonstrative and practical.

The interviewees agreed that this type of method could significantly transform the way in which community residents acquire knowledge. By integrating different disciplines and approaches, it facilitates a more holistic understanding of financial concepts, allowing them to relate theory to practical situations. This could result in deeper and more meaningful learning, as it fosters the connection between content and daily life.

Collaboration among professionals was another key theme in the interviews. All participants agreed that it is essential to work together to develop new pedagogical approaches. Collaboration not only enriches the teaching process, but also allows for the sharing of experiences and best practices, which can result in a more positive impact on learning. They noted that by joining forces, they can design more comprehensive and creative activities that address different dimensions of financial education.

Regarding the education and training needed to implement an integrative pedagogical approach, the professional trainers emphasized the importance of receiving specific training in the use of educational technologies and in active methodologies. They suggested that it would be beneficial to have workshops and courses that not only address theory, but also provide practical opportunities to experiment with digital tools. This

would allow them to acquire the confidence and skills necessary to apply these methods in their classes.

Regarding expectations about the implementation of the pedagogical method, they expressed cautious optimism. Many hoped that, by adopting an integrative approach, an increase in community motivation and engagement would be achieved. They also mentioned that this method could facilitate the personalization of learning, allowing subjects to progress at their own pace and style. However, they also recognized that implementation could face challenges, such as resistance to change and the need for time to adapt to new methodologies.

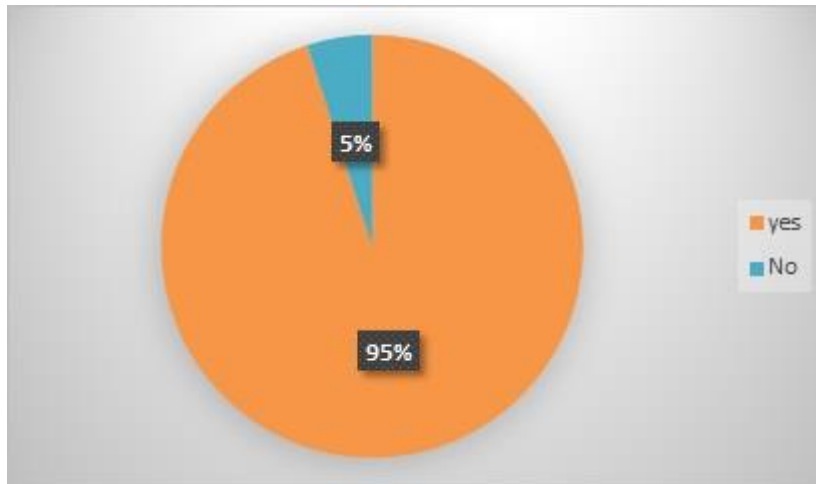
Finally, the professionals proposed the realization of joint projects that integrate different areas of knowledge and involve the villagers in the creation of content. In addition, they stressed the importance of being constantly updated on new trends in education and technology, which would allow them to continue improving their teaching practice. Teachers showed a clear commitment to teaching financial education, using a variety of methodologies and adapting to changing circumstances in education. The integration of virtual environments and the search for innovative methods are positive steps towards improving teaching and learning in this crucial area.

Interview results indicate that the emerging integrative pedagogical approach is highly valued by practitioners in the field of community financial education. This approach not only facilitates learning in virtual environments, but also promotes the development of essential competencies for managing personal finances. As practitioners continue to work on implementing these methods, it is crucial to address the challenges identified and take advantage of opportunities to strengthen financial education in communities where informed and resilient decision-making will be needed in the face of future anthropogenic, social or economic shocks.

A survey of 60 women between the ages of 18 and 60 who are part of the “Empowered and Resilient Networks of Esmeraldas” project was conducted to analyze their perception of the integrative pedagogical approach to community financial education. One of the key questions of the survey addressed the importance of applying an integrative pedagogical method in financial education, revealing that most of the respondents consider this method fundamental to improve their learning (see graph 1). This data indicates that participants recognize the need for an approach that combines diverse tools and technological resources, as well as the integration of different areas of knowledge. In

contrast, a minimal percentage does not consider it relevant, which could reflect previous experiences with traditional methods that do not meet their needs.

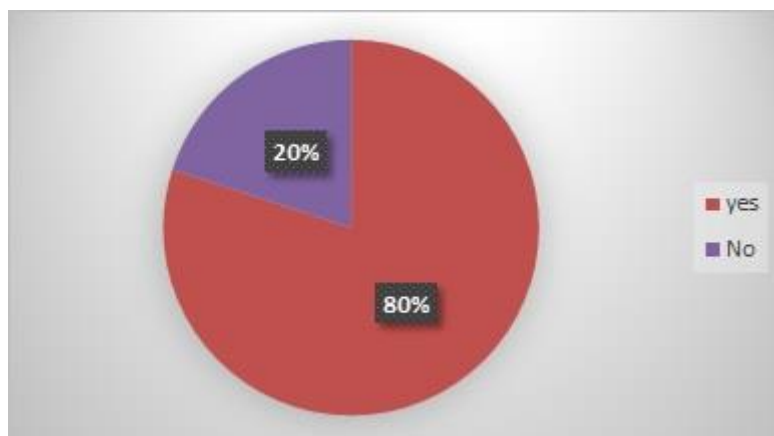
Source: Taken from the survey



Graph 1. Importance of applying the emerging pedagogical method in financial education learning

In relation to the use of technological tools, 80% of the respondents feel comfortable using digital platforms for their learning (see graph 2). This data reflects a significant degree of familiarity and openness towards technology, which is encouraging for the implementation of the integrative pedagogical method. However, less than half expressed discomfort, which highlights the need to provide training and technical support to ensure that all participants feel confident and competent in using these tools.

Source: Taken from the survey

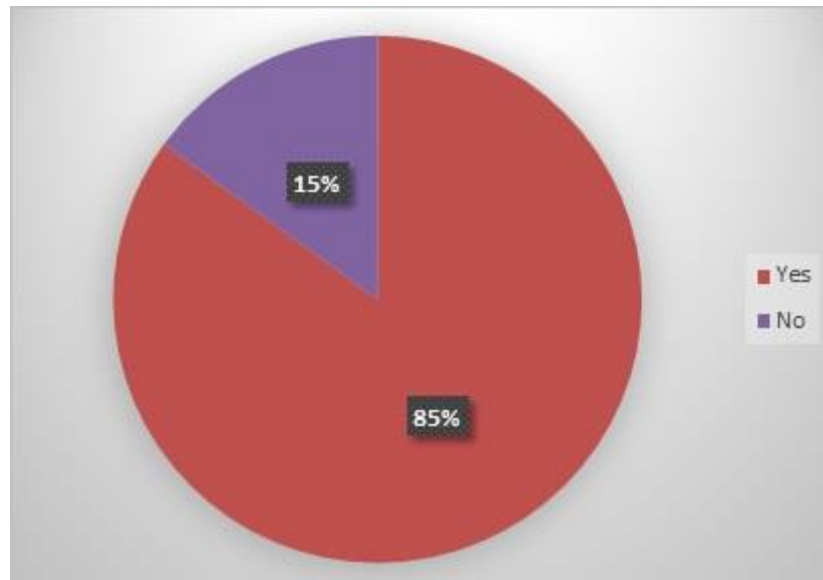


Graph 2. Use of digital platforms in financial literacy learning

Regarding interest in financial education, the majority of respondents indicated that they consider it essential to improve their knowledge in this area (see Figure 3). This high

percentage reinforces the idea that there is a real demand for acquiring financial skills and knowledge, especially in post-crisis environments where money management becomes crucial. Only 15% of respondents showed little interest, which could reflect a lack of information or previous negative experiences.

Source: Taken from the survey

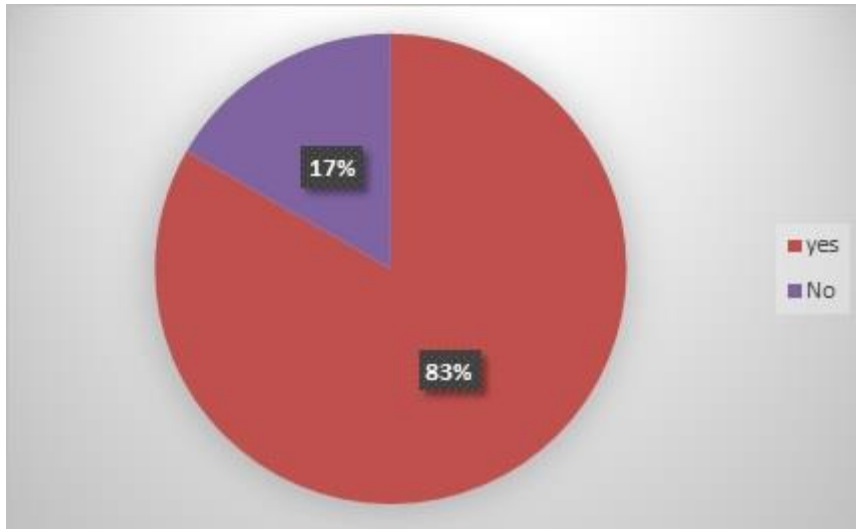


Graph 3. Learning interest in financial Education

Regarding expectations of financial education in a virtual environment, 90% of the participants stated that they expect the learning to be dynamic and participatory. This suggests that women are looking for an educational approach that not only provides them with information, but also allows them to interact and apply what they learn in real situations.

On the belief that a pedagogical method that integrates technology could make learning more interesting compared to traditional methods, the majority responded in the affirmative as shown in Figure 4. However, a minimal number were unsure, which may reflect a lack of familiarity with technological tools or previous experiences that were not satisfactory.

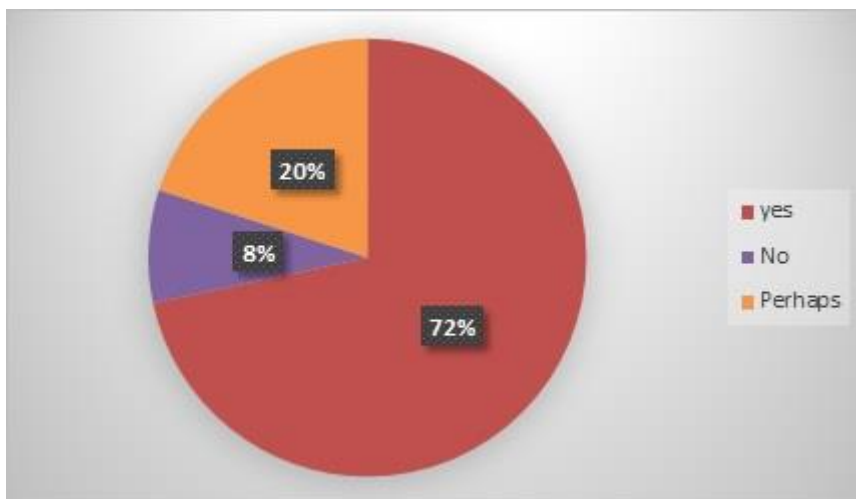
Source: Taken from the survey



Graph 4. Emerging pedagogical method for learning financial Education

Regarding whether they would like to receive additional training to take full advantage of an integrative pedagogical method adapted to virtual environments, the majority of respondents answered affirmatively (see Figure 5), reflecting a clear willingness to learn and improve their financial education skills. A minimal number indicated that they might be interested, while only 8% responded negatively. This interest in additional training is a positive indicator that the community is ready to engage in deeper and more meaningful learning.

Source: Taken from the survey



Graph 5. Receive additional information on financial literacy learning

Respondents responded enthusiastically to the question about interacting with peers and teachers through a virtual learning environment. Ninety percent stated that this interaction could enrich their financial education learning experience. This response suggests that

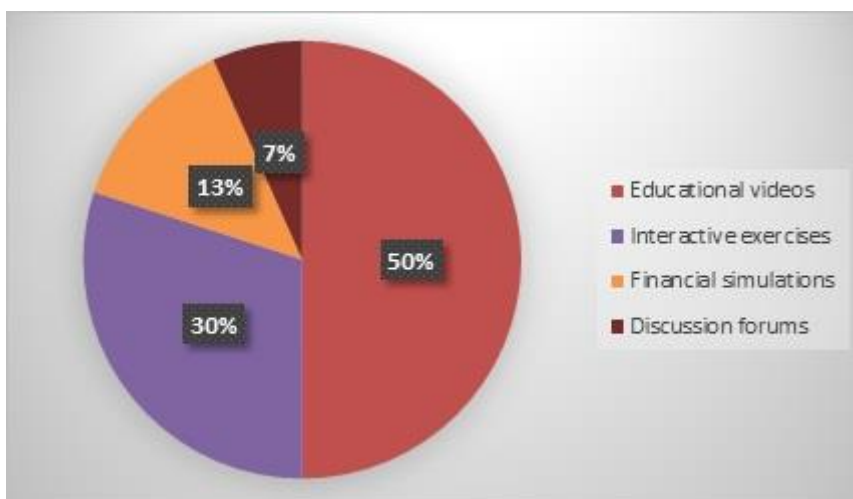
participants highly value communication and collaboration, indicating that a virtual environment could foster more dynamic and participatory learning, helping to create a stronger and more supportive learning community.

In terms of willingness to spend extra time to participate in learning activities in a virtual environment, 70% of the women in the community expressed that they would be willing to participate in training. Some 20% responded that they might be willing, which indicates an openness to the idea, albeit with some reservations. Only 10% indicated that they would not be willing. This result suggests that the villagers are committed to their financial education and are aware that learning can extend beyond the traditional classroom, which opens the door to the implementation of complementary online activities.

When addressing the issue of the most challenging aspects of financial education, respondents identified several areas. Forty percent noted that budgeting and savings management is the most difficult to understand, while 30% mentioned that basic financial concepts present challenges. Some 20% referred to investments and financial markets as the most complicated aspect, and the remaining 10% chose “other”. This reveals that there is a particular interest in improving understanding of practical skills, such as money management, which are essential for financial well-being.

Regarding the online educational resources they consider most useful for learning about financial education, respondents showed a clear preference for educational videos, (see Figure 6). This result indicates that they value visual and practical resources that can facilitate more engaging and accessible learning.

Source: Taken from the survey



Graph 6. Online educational resources in financial literacy learning

Regarding the integration of the pedagogical method that could benefit their learning in financial education, the respondents highlighted several advantages. Sixty percent mentioned that it could encourage active participation, while 50% considered that it would facilitate the understanding of complex concepts. In addition, 40% felt that it would promote collaboration among peers, 30% said it could adapt learning to different learning styles. These results reflect a clear expectation that an innovative pedagogical approach can make learning more effective and personalized.

Finally, respondents noted several barriers that could affect their learning. Forty percent mentioned the lack of access to appropriate technological devices, while 30% highlighted the need for more training in the use of digital platforms. These barriers indicate that despite the interest and willingness to learn, there are obstacles that need to be addressed to ensure the effectiveness of the integrative pedagogical approach. In summary, the analysis of the data reveals a positive picture in terms of acceptance and desire to implement an emerging integrative pedagogical method in community financial education.

The women in the “Empowered and Resilient Networks of Esmeraldas” project show a high interest and willingness to learn, as well as a preference for technological tools, however, it is crucial to consider the identified barriers and provide the necessary support to ensure that all participants can benefit from this educational approach. Technical training and access to appropriate tools are key elements for the success of this project.

Proposal

An integrative pedagogical method allows combining different educational strategies, adapting to the different realities and contexts of the participants. By using digital tools, it facilitates access to quality educational resources and encourages dynamic and contextualized learning. In addition, this approach can be particularly effective in the creation of support networks and the exchange of experiences that enrich the educational process.

The methodology proposed for the development of an integrative pedagogical method is based on a constructivist approach, where learning is understood as an active and collaborative process. This method integrates diverse pedagogical strategies, including project-based learning, collaborative learning and the use of multimedia resources, which

allow participants to build meaningful knowledge from their own experiences and contexts. It will be complemented with gamification techniques to make learning more attractive and motivating, thus encouraging participant engagement.

This integrative pedagogical method, implemented on the Moodle platform, is based on a practical and experiential approach to financial education. It is structured in four interconnected modules, each with specific activities that combine theory with practice, using digital tools for dynamic and engaging learning.

The first module, called Fundamentals of Financial Education, introduces the basic concepts of financial education, its importance in personal and social life, and encourages reflection through discussion forums. The Wallet application is used to familiarize participants with the basic functions of a virtual account.

The second module, Personal and Family Budget, trains participants to develop and manage a personal or family budget. The Money Manager application is used to guide participants in creating a budget, identifying income and expenses, setting priorities and making adjustments. Practical exercises are included on the Moodle platform and applications such as Spendee or Monefy are used to simulate different spending scenarios.

The third module, Investment and Risk Management, provides an introduction to the world of investments, teaching how to evaluate risks and returns. The MyBnk application or a similar virtual platform is used to create an investment simulator where participants experiment with different investment options. Hypothetical investment cases are analyzed on the Moodle platform, including different alternatives such as: stocks, bonds and real estate. The importance of diversifying the investment portfolio to minimize risks is discussed.

The fourth module, Community Financial Education Project, encourages the practical application of the knowledge acquired in a real context. Participants are organized into groups and must identify a financial need in their community. Each group develops an action plan to address the identified need, including intervention strategies and resources needed. Groups present their projects on the Moodle platform, sharing their results and learning. Feedback and exchange of ideas among the groups is encouraged through the discussion forum.

Conclusions

Financial education is fundamental for personal and community development, empowering women in financial decision-making. In an increasingly complex world, the need to improve the management of economic resources is crucial. Inclusive pedagogical methods using virtual learning environments are presented as an effective alternative to make informed and resilient decisions in the face of possible anthropogenic, social or economic crises.

Community women are very interested in using digital platforms, positively valuing their potential to enrich the learning experience through interaction and collaboration with professional trainers, which is fundamental for meaningful learning in the management of their finances. Active participation in forums, discussions and group activities fosters a sense of belonging to a learning community, which increases motivation and engagement.

Despite widespread interest, there are challenges such as women's unfamiliarity with these digital tools and the need for adequate training. Ongoing training and technical support are essential to ensure that all participants can take full advantage of virtual environments. This will facilitate the understanding of complex concepts and make learning more engaging.