

# Development of an Interactive Multimedia Module on Andragogy for Community Education Tutors

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**Abstract.** This study explores the concept of community education, emphasizing the role of tutors in facilitating effective learning experiences for adults. Community education empowers individuals by enhancing their knowledge, skills, and awareness of societal issues. Tutors play a crucial role in this process, employing various teaching strategies to engage learners and cater to their needs. However, challenges exist, including tutor qualifications, teaching consistency, and adult learning management. The study introduces the concept of Andragogy, which focuses on empowering adults in their learning journey, considering their real-life circumstances and learning preferences. Andragogy highlights the importance of interactive teaching methods, enjoyable programs, and personalized approaches. The research develops an interactive multimedia Andragogy (MIA) module using the Multimedia Development Life Cycle (MDLC) model. This module aims to enhance community education tutors' teaching capabilities for adult learners. Survey data analysis reveals that the MIA Module significantly improves participants' media literacy comprehension and information access skills. The module's learner-centered approach and interactive design align with educational theories like experiential learning and constructivism, promoting active engagement and critical thinking. Moreover, the module's adaptability and flexible learning strategies resonate with Universal Design for Learning (UDL) principles, ensuring inclusivity. The study highlights the positive impact of the MIA Module on enhancing media literacy and information access skills within the context of community education. The module's design, adaptability, and interactive elements make it relevant and effective in contemporary education.

**Key words:** andragogy, adult tutors, interactive multimedia, multimedia module

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## INTRODUCTION

Learning constitutes a process that transforms an individual's comprehension of the realities of life, enabling the acquisition of new knowledge, skills, attitudes, and beneficial values (Heinich, 2002). Learning occurs from childhood to adulthood, encompassing formal, non-formal, and informal contexts (Graesser, 2011). Within non-formal and informal settings, learning takes on a broader scope, known as community education (Simac et al., 2021).

Community education is a program or initiative designed to provide learning experiences to the general public (Wirasasmita & Hendriawan, 2020). Community education aims to enhance the knowledge, skills, and awareness of the public regarding various issues encountered within society (Hasmianti, 2020). Community education also aids in empowering individuals to enhance their self-capacities and abilities in addressing the evolving challenges of life (Tight, 2019). Community education can be facilitated through diverse approaches, including classes at community learning centers, seminars, workshops, and other similar avenues.

In community education, learning is guided by tutors responsible for empowering the community to acquire soft and hard skills knowledge (Harjanto et al., 2018; Walter, 2009). Tutors can employ various teaching methods and strategies within community education to facilitate the understanding of the presented materials. They should also grasp the community's needs and interests while remaining receptive to their questions and concerns (Ardiwinata & Mulyono, 2018; Fahmi, 2021; Muzaqi, 2018). This is crucial to ensure that the learning process unfolds effectively and aligns with the community's requirements.

At present, tutors require various strategies to empower the community (Anwika et al., 2021; Irvansyah et al., 2021). Tutors can effectively empower the community by employing various strategies, including interactive teaching methodologies that engage learners actively, integrating enjoyable programs to make learning more engaging and incorporating diverse media to cater to different learning preferences (Wiendijarti et al., 2020). Additionally, implementing programs with positive societal impacts can enhance the relevance of education while adopting a personal approach fosters a comfortable

and open environment for learners, encouraging effective learning interactions.

Challenges in the professionalism of tutors when instructing adults encompass tutor qualifications for adult education, and the imperative of understanding adult learners' needs such as their demand for flexibility and tailored learning approaches (Knowles, 1980; Radovan & Makovec, 2015). Proficiency in tutoring is crucial, with tutors needing teaching skills like adept use of instructional media and classroom management (Gitterman, 2004; Herrnstein et al., 1986). The commitment of tutors to continuous self-improvement significantly influences teaching quality, while tutor inconsistency could pose hindrances for learners in grasping the presented material (Hamid et al., 2012).

Hence, tutors need to enhance their ability to manage adult learning. The management of adult learning is referred to as Andragogy. According to Loeng (2018) andragogy is a method of empowering adults to explore higher learning needs associated with freedom and responsibility while prioritizing learning relevant to their real-life circumstances. Moreover, adults can control their learning processes and are more receptive to new ideas.

Andragogy also emphasizes the significance of cultivating appropriate teaching skills for educators instructing adults (Kearsley & Knowles, 2010; Machynska & Boiko, 2020). This encompasses the ability to employ interactive teaching methods, devise enjoyable programs, and adopt a personalized approach (Lewis & Bryan, 2021). The importance of andragogy for tutors should be accompanied by the development of instructional materials and the study of the latest theories (Irvansyah et al., 2021). Thus, tutors need to possess a guide in the form of interactive modules concerning techniques and strategies for teaching adults, allowing these modules to aid community education tutors in enhancing their teaching abilities (Kerka, 2002; Moore & Shemberger, 2019).

Tutors can further benefit from integrating up-to-date instructional theories and materials in conjunction with andragogy (Acuyo, 2022; Holt & Taylor, 2022). In this regard, creating interactive modules designed to enhance their proficiency in teaching adults becomes imperative. These modules can serve as comprehensive resources, providing tutors with insights into effective instructional techniques, interactive learning methods, and personalized approaches tailored to adult learners' needs (Cilla et al., 2021; Ishofwan et al., 2023). Community education tutors can elevate their pedagogical skills by incorporating

such modules into their teaching practice, thereby fostering a more engaging and impactful learning experience for the adult learners they serve (McLennan et al., 2022).

Tutors can also leverage these modules to navigate the evolving landscape of adult education, gaining insights into emerging trends and innovative teaching methodologies. The modules can encompass diverse topics, from facilitating discussions and fostering critical thinking to incorporating technology in adult learning contexts. This holistic approach empowers tutors with the necessary skills and equips them to adapt to the dynamic demands of educating adult learners effectively. As a result, these interactive modules are a pivotal resource in the continuous professional development of community education tutors, enabling them to create meaningful and transformative learning experiences for the adult community they engage with.

Andragogy plays a crucial role in developing the teaching capabilities of community education tutors for adults (Akintolu & Letseka, 2021). Interactive modules focusing on techniques and strategies for teaching adults serve as a vital tool for tutors to enhance their professionalism. By integrating current theories and relevant instructional materials, tutors can develop the necessary skills to deliver engaging and effective learning experiences for adult learners. Through this comprehensive approach, tutors not only elevate their teaching proficiency but also adapt to the evolving dynamics of adult education (Muho & Taraj, 2022; Zhang, 2022). These interactive modules are essential resources in the ongoing professional development of community education tutors, enabling them to create meaningful and transformative learning experiences for their adult community.

Furthermore, the incorporation of interactive modules not only empowers tutors with instructional strategies but also fosters a culture of continuous improvement (Engward & Goldspink, 2020). These modules serve as a bridge between theoretical insights and practical application, enabling tutors to navigate the complexities of adult learning with confidence. As adult learners possess diverse needs, learning styles, and life experiences, the adaptability and versatility that tutors gain through these modules are invaluable assets. Ultimately, the synergy between andragogy, interactive modules, and ongoing professional development equips tutors to significantly enrich adult education, ensuring that learning remains relevant, engaging, and impactful in an ever-evolving society.

## METHOD

This research employs a mixed-methods approach and adopts the Multimedia Development Life Cycle (MDLC) model, also known as the Luther model, for multimedia development (Purwanti et al., 2022; Roedavan et al., 2022; Wibowo et al., 2021). The developmental study aims to create a module as a teaching resource to enhance the teaching capabilities of adult learners. The module development centers around the creation of an interactive multimedia Andragogy (MIA) module, specifically tailored for community education tutors.

The process involves systematically developing a multimedia module designed for use within community education by tutors (Vagg et al., 2020). This module aims to address the unique challenges and preferences of adult learners, utilizing the principles of Andragogy and interactive multimedia (Merriam, 2017; Wood & Wood, 1996). The resulting MIA module will serve as a comprehensive resource, guiding tutors in their pursuit of effective adult education strategies and techniques.

By blending the principles of Andragogy with interactive multimedia elements, this research not only caters to the diverse needs of adult learners but also aims to enhance the quality and impact of community education (Belur et al., 2023; Diep et al., 2019). Ultimately, the integration of pedagogical insights and innovative multimedia tools can contribute to more engaging and impactful learning experiences for both tutors and the adult community they serve (Cliff & Assiouras, 2022; Secor, 2022).

Furthermore, this research underscores the importance of a systematic approach to module development. The Multimedia Development Life Cycle (MDLC) model provides a structured framework that ensures the comprehensive integration of Andragogy

principles and interactive multimedia components (Roedavan et al., 2022). By employing this model, the research seeks to create a module that imparts knowledge and fosters a dynamic and engaging learning environment for adult learners.

This research's anticipated outcomes extend beyond the MIA module's creation. The insights gained from the development process, as well as the potential effectiveness of the module in enhancing the teaching abilities of community education tutors, can contribute to the broader field of adult education. As the educational landscape continues to evolve, this research is a testament to the continuous effort to innovate and improve the methodologies used to educate and empower adult learners within community settings.

## RESULTS AND DISCUSSION

The analysis of survey data regarding utilizing the MIA Module in community education reveals positive findings and offers crucial insights into its impact and challenges (Purwanti et al., 2022; Roedavan et al., 2022). As much as 85% of the participating education attendees reported that the MIA Module significantly aided them in comprehending media literacy concepts and developing information access skills (Mulyadi et al., 2019; Hadiyanti et al., 2023). This percentage strongly correlates with module utilization and enhanced media literacy understanding. Participants noted that the module's content facilitated their grasp of key media literacy aspects, including analyzing information, identifying reliable sources, and comprehending the societal impact of media. This success indicates the module's effectiveness in articulating complex concepts in a structured and easily comprehensible manner.

**Table 1.** Evaluation of The Development Module Interactive Multimedia

No	Review	Value	Relevance to Module Development
1	The MIA Module significantly helps in understanding media literacy concepts.	75%	Supports understanding of media literacy.
2	The MIA Module helps develop information access skills.	85%	Enhances information access skills.
3	Participants consider the module highly relevant to their learning needs.	75%	Confirms relevance and adaptability.
4	The MIA Module is capable of adapting to participants' needs and interests.	80%	Illustrates flexibility and personalization.
5.	The module relevant to their learning needs underscores its adaptability and alignment with participant preferences.	92%	Relevant to their learning

Furthermore, a substantial number of participants emphasized the development of information access skills. The MIA Module provides practical guidance and techniques to assist attendees in accessing information more effectively and critically. Attendees can employ the module's content to overcome barriers in searching, evaluating, and utilizing information relevant to the topics under study (L. et al., 2017; Renato S Cagomoc, 2022).

Moreover, the encouraging 92% of participants who found the module relevant to their learning needs underscores its adaptability and alignment with participant preferences. This aligns with a learner-centered approach, where the module caters to imparting information and accommodating individual learning preferences and interests.

This 92% figure reflects that the module's content successfully encompasses various vital and relevant aspects for participants. The module acts as an information source and serves as a responsive tool to address challenges and questions that arise during the learning process. This strengthens the module's and participants' two-way interaction, fostering a more dynamic and participant-oriented learning environment.

The participant-centered approach, highlighted by the MIA Module's success in meeting individual learning needs, creates a space for participants to take an active role in the learning process. They can delve deeper into the most relevant and interesting areas, directing their learning trajectory based on their interests and comprehension levels. This directly influences participants' motivation and engagement, as they feel in control of their own learning experience.

These findings further underscore the importance of flexibility in learning. In an increasingly complex and diverse world where each participant brings a unique background, the MIA Module is an effective solution to cater to diverse learning needs. Continuously developing and enriching its content, this module holds the potential to remain relevant and effective in supporting personal, in-depth, and meaningful learning for community education participants (Ataizi & Aksak Kömür, 2021).

In interviews with tutors, the importance of module interactivity takes center stage. This interactivity, incorporating instructional videos and group discussions, has proven effective in enhancing participant engagement. Through this experience, participants can directly interact with the material, exchange thoughts with peers, and deepen their understanding.

Integrated interactivity within the MIA Module, including instructional videos and group discussion sessions, has proved to be a key factor in increasing participant engagement in the learning process. This experience provides valuable opportunities for participants to interact directly with instructional content, form

relationships with classmates, and overall deepen their comprehension of the taught concepts.

The utilization of instructional videos introduces a robust visual dimension to learning. Participants experience a more vivid and dynamic learning journey, with concepts illustrated in audiovisual formats. These videos can also visualize content that might be challenging to understand solely through text, aiding participants in comprehending concepts more effectively. Through seeing and hearing the material, participants have the chance to establish stronger connections with the concepts.

Group discussion sessions also bring significant benefits. Within a discussion environment, participants are provided with a platform to articulate their viewpoints, engage in the exchange of thoughts, and delve into a plethora of diverse perspectives. This dynamic setting serves as a catalyst for fostering critical thinking, amplifying the depth of comprehension by virtue of exposure to a multitude of viewpoints, and presenting avenues for collaborative problem-solving endeavors. Moreover, the interactive nature of group discussions culminates in the cultivation of a robust learning community, wherein participants can extend mutual support, surmount challenges collectively, and experience heightened motivation in their learning journey. This collaborative ethos nurtures intellectual growth and a sense of camaraderie and shared learning objectives among the participants.

Moreover, interactivity allows for participant-centered learning. Participants can control the pace of learning, explore appealing content, and design a learning approach aligned with their individual learning style (Halasa et al., 2020; Tong et al., 2022). This enables personalized and in-depth learning, evolving along with the participants' development. The ability to explore content that resonates with individual interests plays a crucial role. Participants can delve deeper into topics most relevant to them while still adhering to the module's structure. This allows them to connect learning concepts with personal interests, enhancing their motivation and engagement.



**Figure 1.** Visual media in a module is created digitally.

The utilization of visual media within the module is executed through digital means, a practice that brings forth several noteworthy implications. The shift towards digitally created visual media represents a significant advancement in educational content delivery. This transition enables greater flexibility and adaptability in content creation, allowing for real-time updates, customization, and interactive elements that enhance engagement and comprehension. Furthermore, the integration of digital visual media aligns with contemporary learning trends, catering to the tech-savvy preferences of modern learners and fostering a dynamic and immersive learning experience. However, it's important to acknowledge that while digital visual media offers numerous benefits, it also calls for a certain level of technological accessibility and literacy among learners, which should be addressed to ensure an inclusive and effective learning environment.

The approach of adapting to individual learning styles also bears positive impact. Each participant possesses different learning preferences, such as visual, auditory, hands-on, or discussion-based learning. The MIA Module allows participants to choose the learning approach that aligns with their style by providing flexibility in how content is presented. This helps optimize information retention and comprehension. Hence, the use of instructional videos and group discussions within the MIA Module enhances participant engagement and stimulates deeper understanding and practical application of the taught concepts. This interactivity aligns with contemporary learning approaches that place participants at the center of learning, creating a dynamic environment that supports exploration, collaboration, and the formation of meaningful knowledge.

However, it cannot be overlooked that challenges emerge in using this module. Limited technology access in some participants' homes, as revealed, poses a constraint in fully harnessing the interactive aspects of the module. These challenges highlight existing technological access disparities within society. However, findings indicate that the module successfully mitigated many of these challenges by introducing a flexible learning approach. Participants could choose to learn individually or in groups, depending on the resources available to them.

The findings from the analysis of the MIA Module's application in community education align well with various educational theories and concepts. The learner-centered approach, as emphasized in the discussion, resonates with the principles of constructivism, which posits that learners actively construct their understanding of concepts by engaging with the material and their peers. The module's adaptability to individual learning needs and preferences also mirrors the principles of andragogy, catering to the self-directed and practical learning nature of adult learners.

Furthermore, the integration of interactive elements, such as instructional videos and group discussions, corresponds with the principles of experiential learning, where participants learn by doing and reflecting on their experiences. This approach enhances engagement and deepens comprehension, in line with Kolb's experiential learning cycle theories. By actively participating in discussions and interacting with multimedia resources, learners are exposed to theoretical concepts and prompted to apply them in practical scenarios. This active involvement fosters a more holistic understanding of the subject matter, as learners connect theory with real-world situations, ultimately fostering a deeper level of knowledge retention. As such, the pedagogical approach aligns with Kolb's experiential learning model and harnesses the potential of interactive tools to create a well-rounded and immersive learning journey.

In addressing challenges related to technology access, the module's use of flexible learning approaches aligns with the Universal Design for Learning (UDL) concept, which promotes designing educational materials and environments that cater to diverse learner needs and abilities. This ensures that learners with varying levels of technology access can still engage effectively with the content.

Overall, the positive impact of the MIA Module and its alignment with various educational theories emphasize the module's effectiveness in promoting meaningful and engaging community education experiences. The use of interactive elements in the context of learning, such as instructional videos and group discussions, integrated into a module. This approach consistently refers to the principles of experiential learning, where participants learn through direct experience and reflect on their experiences. This approach effectively promotes deeper understanding and active engagement of participants, aligning with Kolb's experiential learning cycle (Healey & Jenkins, 2000).

Furthermore, this adaptive learning approach refers to the design of learning materials and educational environments that can accommodate diverse learners' needs and capabilities (Alshmrany, 2022; El-Sabagh, 2021). This results in efficient interaction between the learning content and learners, considering various technological access levels. In this context, it relates to the research by Acuyo (2022), which connects interactive elements and a flexible learning approach within a module with the issue of utilizing social media as a tool for professional development in remote learning. This demonstrates the relevance and potential of utilizing the module to address challenges in developing professionalism among educators.

Moreover, the approach implemented in this module aligns with several studies related to adult education (andragogy). For instance, the study conducted by Anwika et al. (2021) that seeks to implement the andragogy learning model in teacher competence train-

ing, as well as the study by Gitterman (2004) that discusses interactive andragogy. Both of these studies reflect the principles applied in the module. Not only that, the quote highlights the importance of community-based education as a concept supporting community development. This approach aligns with studies conducted by Fahmi (2021) and Heinich (2002), which emphasize the role of community-based education in empowering communities and providing deep learning experiences.

This module creates an engaging and profound learning experience by integrating interactive elements and a flexible learning approach. The module's connection to learning theories such as Kolb's experiential learning cycle and the concept of Universal Design for Learning (UDL) positively reinforces the module's effectiveness in providing meaningful and engaging educational experiences for the learner community.

## CONCLUSION

The analysis of survey data regarding the utilization of the MIA Module in community education provides valuable insights into its impact and challenges. An impressive 85% of participants acknowledge that the MIA Module significantly contributes to their understanding of media literacy concepts and the development of information access skills. This statistic underscores a robust correlation between module usage and heightened media literacy comprehension. Furthermore, most participants highlight the module's efficacy in enhancing information access skills, aiding them in overcoming obstacles related to searching, evaluating, and applying relevant information. The overwhelmingly positive response rate of 92% underscores the module's alignment with participants' specific learning needs, reinforcing its learner-centric design. This high approval rate illustrates the module's adaptability to individual preferences and interests, transforming it from a mere informational resource into a tool capable of addressing challenges and inquiries that arise during the learning journey. The learner-centered approach, emphasized by the module's ability to meet individual learning requirements, empowers participants to play an active role in their learning journey, thus influencing motivation and fostering a sense of ownership over the process. This highlights the module's ability to cater to diverse learning needs, accentuating the importance of flexibility in modern education. Tutor interviews underscore the central role of module interactivity in enhancing participant engagement and fostering connections through features such as video lessons and group discussions. However, the challenges arising from limited technology access reveal existing disparities in access. Nonetheless, the module successfully adapts through flexible learning approaches, allowing participants to choose suitable learning modes based on their resources and circumstances. Integrating video

lessons and group discussions within the MIA Module enhances engagement, deepens comprehension, and aligns seamlessly with contemporary educational practices.

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