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THE 13TH INTERNATIONAL INNOVATION, INVENTION & DESIGN COMPETITION 2024

EXTENDED ABSTRACTS

e-BOOK

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MICRO CREDENTIALS AS TOOLS FOR SELF-DIRECTED LEARNING IN SOCIAL SECURITY

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ABSTRACT

Micro-credentials are emerging as potent tools for self-directed learning, particularly in the complex arena of social security. Micro-credentials are rapidly becoming vital tools for self-directed learning, especially in the complex domain of social security. This educational approach simplifies complex information into manageable, modular courses, enabling individuals to effectively understand and plan their social security benefits. These courses are meticulously designed using Robert Gagné's Nine Events of Instruction, ensuring a systematic learning experience that enhances understanding and retention. Each course is developed to address specific learning outcomes, from basic awareness to sophisticated financial strategies, ensuring relevance and depth. The innovation of this micro-credential system lies in its high degree of customization and a robust digital badge certification system. This system recognizes and visually represents the learner's progress, serving as a motivational and verifiable record of achievement. The design of the micro-credentials prioritizes user-friendliness and accessibility, with courses available through a dedicated web-based platform and mobile application—UFuture, an official digital learning platform of Universiti Teknologi MARA (UiTM). This platform facilitates interactive learning through the integration of dynamic content, including interactive simulations and real-life case studies, which are crucial for applying theoretical knowledge in practical settings. Ultimately, the purpose of these micro-credentials is to demystify the intricacies of social security, thereby enhancing financial literacy and preparedness among individuals. This is particularly vital for fostering informed decision-making within the community, as the landscape of social security becomes increasingly complex. By providing accessible, structured, and engaging learning opportunities, the micro-credential system not only empowers individuals but also prepares a well-informed citizenry capable of navigating the challenges of modern social security systems.

Keyword: Micro-Credentials, Self-Directed Learning, Social Security

1. INTRODUCTION

The landscape of adult education is undergoing a significant transformation with the introduction of micro-credentials, particularly noted in recent literature such as Chek et al. (2023). These educational innovations offer tailored, self-directed learning experiences that are uniquely suited to the needs of today's learners. In the realm of social security, the application of micro-credentials introduces a structured yet flexible learning model, meticulously designed to cater to specific individual learning requirements. This approach is not just an educational innovation; it represents a strategic response to several pressing challenges in the field of social security.

Social security systems worldwide are characterized by their complexity and constant evolution, driven by changes in legislation, demographic shifts, and economic fluctuations. For most individuals, navigating these systems can be daunting due to the technical nature of the information and the personal implications of investment and benefit decisions. The lack of understanding can lead to suboptimal decision-making, which may adversely affect an individual's financial security in the long term. This situation underscores the need for accessible and reliable educational resources that can simplify these complex systems for the average citizen.

Recent studies indicate a significant gap in financial literacy, particularly in understanding and managing social security benefits (Pirkkalainen et al., 2022). This gap presents a critical barrier to effective personal financial management, leaving many individuals unprepared for retirement and other life stages requiring social security support. The traditional educational models, with their generalized content and inflexible delivery methods, are ill-suited to meet the diverse needs of a varied adult population.

The primary challenge lies in providing education on social security that is both accessible and effective in empowering individuals to make informed decisions. Current educational resources often fail to address the specific needs of individuals, lack engagement, and do not provide actionable insights that individuals can apply to their personal circumstances. The objectives of developing the micro-credentials module are:

- i. To simplify the complexity of social security systems into manageable, learner-friendly modules.
- ii. To empower individuals with the knowledge and tools necessary for effective navigation and decision-making regarding their social security benefits.
- iii. To provide a flexible and personalized learning experience that can adapt to the varied learning paces and styles of adults.
- iv. To enhance the financial literacy of individuals, thereby improving overall societal welfare.

The motivation to develop these micro-credentials stems from a recognized need to enhance public understanding of social security systems. By employing an innovative educational approach that leverages technology and pedagogical best practices, such as Gagné's Nine Events of Instruction, the project aims to transform the daunting task of understanding social security into a more approachable and engaging learning experience. This initiative seeks to equip individuals with the skills and confidence needed to make informed decisions about their benefits, contributing to their financial well-being and security.

2. METHODOLOGY

The design and development micro-credentials are developed to be concise and targeted, focusing on essential knowledge and skills without overwhelming learners. The courses range from basic introductions to advanced financial planning strategies (Ahmad Ridzuan et al., 2018). This modular system is supported by a digital platform that facilitates easy access and flexible learning schedules, which is essential for adult learners who balance multiple responsibilities (Ministry of education, 2017).

2.1 Design and Development of Micro-Credentials

The micro-credentials offered through this initiative are crafted to be concise and targeted, ensuring that the content is not only relevant but also manageable for learners. Each course is designed to cover essential knowledge and skills required to navigate the complexities of social security systems, ranging from basic introductions to advanced financial planning strategies, as evidenced by Ahmad Ridzuan et al. (2018). The development of these courses follows a modular approach, which allows learners to engage with content that is directly applicable to their immediate needs and future planning objectives.

The design and development process adheres to a rigorous methodology that integrates Robert Gagné's Nine Events of Instruction to ensure effective learning experiences. These events guide the instructional design process from capturing the learner's attention right through to facilitating the transfer of knowledge to real-world contexts. This approach is particularly suitable for adult learners, who benefit from structured yet flexible learning experiences that can be tailored to their specific educational backgrounds and life circumstances (Tamoliune et al., 2023).

2.2 Digital Platform Integration

The micro-credentials are hosted on UFuture, the official digital learning platform of Universiti Teknologi MARA (UiTM). This platform is specifically chosen for its robustness and flexibility, allowing for seamless access across different devices and operating systems, thereby addressing the needs of adult learners who often juggle multiple responsibilities. The Ministry of Education (2017) underscores the importance of such flexible learning schedules in modern education paradigms, particularly for adult education.

2.3 Guidelines by iCEPS UiTM

The entire design and development process of the micro-credentials also align with the e-learning guidelines provided by the Institute of Continuing Education & Professional Studies (iCEPS) at UiTM. These guidelines emphasize the creation of engaging and interactive e-learning content that is pedagogically sound and technologically advanced. Key elements include:

- i. **Interactivity:** Incorporating interactive quizzes, simulations, and discussions to enhance engagement and retention.
- ii. **Accessibility:** Ensuring that all learners, regardless of their physical abilities or learning preferences, can access and benefit from the courses.
- iii. **Assessment and Feedback:** Implementing robust mechanisms for assessing learner progress and providing timely feedback, which is crucial for the iterative learning process.

3. FINDINGS

The micro-credentials undergo a series of pilot tests to gather initial feedback and assess the effectiveness of the learning modules. This iterative process is crucial to refining the courses and ensuring they meet the high standards set by both UiTM and the broader educational objectives of the program. Feedback from learners is used to make continuous improvements, not only to the course content but also to the usability and functionality of the UFuture platform. Our findings indicate that learners appreciate the

ability to control their educational pathways and the practical nature of the content, which is directly applicable to their personal financial situations. The digital badge system effectively motivates learners by visibly acknowledging their achievements, thereby encouraging continued engagement and learning (Chek et al., 2023).

4. CONCLUSION

The micro-credential system for social security education exemplifies a forward-thinking approach to lifelong learning. By enabling individualized learning trajectories, it not only enhances personal empowerment and financial literacy but also contributes to a more informed and prepared society. As social security systems continue to evolve, such educational tools will play a crucial role in ensuring that all citizens are equipped to make informed decisions about their futures (Ahmad Ridzuan et al., 2018; Chek et al., 2019, 2023).

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Sekian, terima kasih.

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Saya yang menjalankan amanah,

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Setuju.

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