โครงการ CO-OP SHOWCASE : ก้าวแรกสู่อาชีพ ประจำปี 2567 วี มีบรางการ CO-OP SHOWCASE : ก้าวแรกสู่อาชีพ ประจำปี 2567 วี มีบรางการ CO-OP SHOWCASE : ก้าวแรกสู่อาชีพ ประจำปี 2567 วี



UX/UI Design for Learning Management System for Elderly Learner

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Abstract

This project explores the integration of technology into education for the elderly through the implementation of a Learning Management System (LMS) called Moodle in elderly academy in Thailand. As the global population ages, there is a growing need for accessible educational resources that cater to the elderly, enabling them to continue learning and engaging with digital tools. This study aims to examine the benefits and challenges of using Moodle to support educational activities for elderly learners, focusing on





user-friendliness, engagement, and adaptability. Through a mixed-methods approach, including surveys, interviews, and observational studies, data were collected from elderly learners in Dao De Xin Xi Club. The findings show that technology can enhance the learning experience by providing interactive and flexible learning opportunities, though technical challenges and digital literacy remain significant barriers. This project suggests strategies to overcome these obstacles, ensuring that technology can be effectively integrated into elderly education to promote lifelong learning.

Introduction

As Thailand's aging population on the rise, there is an increasing need for educational resources that support lifelong learning for elderly. Traditional educational approaches may not fully address the unique needs of elderly learners. This project examines the potential of Moodle, a Learning Management System (LMS), to enhance learning experiences for elderly individuals by providing an interactive, digital platform. By analyzing the usability and accessibility of Moodle for elderly users, this study aims to identify strategies to improve digital literacy and encourage engagement, promoting education for Thailand's elderly population.

Methodology

1. Gathering Information on Elderly in Thailand

The first step involved collecting background information on the elderly population in Thailand to understand their educational needs, technological familiarity, and any barriers they may face in digital learning environments. This information was sourced from government reports, academic studies, and surveys on elderly demographics and technology use in Thailand.

2. Identifying Key Features of Moodle for Elderly Education

Based on the initial information, I identified key features in Moodle that could potentially benefit elderly learners, such as

Figure 1 : LMS Flowchart for users





accessibility options, ease of navigation, and opportunities for interaction. This step helped me to focus the study towards features that directly address common needs and challenges faced by elderly users.

3. Selecting Participants

Participants in this study were 55 elderly individuals from the Dao De Xin Xi Club in Thailand, an organization dedicated to promoting lifelong learning and well-being among older adults. These participants were selected based on their membership in the club, as well as their interest in using digital platforms for educational purposes. This group provided a focused sample for understanding the needs and experiences of elderly learners in a structured setting.

4. Data Collection through Surveys and Interviews

To gather quantitative data, we administered structured surveys to all participants, focusing on their experiences, knowledge, and engagement levels about technology. For qualitative insights, we conducted semi-structured interviews with some of the participants, allowing them to share personal challenges and preferences in more detail.

5. **Designing Moodle for Elderly Learners**

Based on insights gathered from initial information and participant feedback, I customize the Moodle platform to accommodate elderly users. Key design adjustments included:

- Simplified Interface: I modified Moodle's layout to ensure a clean, user-friendly interface with larger icons, increased font sizes, and minimized on-screen elements to avoid overwhelming users.
- Accessible Navigation: I enhanced navigation by organizing course content into clearly labeled sections, using color contrasts and tooltips for better readability and accessibility.

These design aimed to make Moodle more accessible and engaging, aligning with elderly learners' capabilities and preferences as identified in prior research.

6. Creating User and Admin Manuals

For ease of use of Moodle among elderly learners and administrators, I developed comprehensive manuals for both user and

Figure 2: Teacher and Student Flowchart

Figure 3: Teacher and Student Flowchart



Figure 4 : LMS

Conclusion

This project demonstrates the potential for using Moodle as a Learning Management System to support elderly education in Thailand, specifically tailored for elderly members of the Dao De Xin Xi Club. Through thoughtful design adjustments, including an accessible interface and step-by-step guidance, Moodle can become a valuable tool for fostering digital literacy and enhancing lifelong learning among elderly learners.

admin roles. The User Manual includes step-by-step instructions on navigating Moodle, accessing course materials, and engaging with interactive features, written in simple, accessible language with visual aids. The Admin Manual provides guidelines for setting up courses, managing user access, and troubleshooting common issues, tailored for instructors or coordinators overseeing Moodle use. Both manuals were designed to ensure ease of use, helpful for all levels of digital literacy among participants.

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By integrating technology into education for the elderly, this project contributes valuable insights into making digital education accessible to the elderly. Future studies could explore expanding such initiatives to other elderly groups in Thailand, assessing long-term impacts on digital engagement and quality of life.

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