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Islamic Adab Courseware for Year Two Students Based On UDL Principles

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ABSTRACT

KAFA Class is an abbreviation of Fardhu Ain Religious Class for primary students in a few states in Malaysia. For KAFA Classes, there are eight to nine subjects taught in class for year 1 to year 6 students. Since its presence, all subjects have been taught using traditional methods (in class through a face-to-face method by using textbooks and activity books). During the pandemic of Covid-19, teachers are facing difficulties in teaching online as there are very minimal sources of teaching materials. Hence, this study is conducted in response to the issue. For this study, the focus has been set for year 2 students that taking Islamic Adab subjects in Sekolah Kebangsaan Tembak, Kedah. The main aim of this study is to develop a standalone courseware for Islamic Adab for year 2 students. To achieve the main aim, three objectives have been set. The process starts with preliminary studies to gather information on courseware requirements. The preliminary findings have been mapped to Universal Design Learning (UDL) which focuses on three main theory components which are (i)engagement, (ii)representation, and (iii)action and expressions. The findings are then used in the development phase which involves analysis, design, development, implementation, and evaluation. To complete the testing phase, the courseware then undergoes functionality and usability testing. Findings from the testing results indicate that the courseware developed meets all requirements set at the preliminary stage and is suitable to be used in teaching Islamic Adab for year 2 students.

Keywords: KAFA; Islamic Adab; Islamic Class; Islamic Courseware; Multimedia Courseware.

1. INTRODUCTION

In certain Malaysian states, the term KAFA Classes refers to the Fardhu Ain Religious Class for elementary school pupils. For pupils in years 1 through 6, eight to nine subjects are covered in class in KAFA classes. Since its introduction, the conventional approach has been used to teach every subject. The main objective of this study is to design and develop standalone courseware for Islamic Adab for year 2 students. The design process starts with preliminary studies to gather information on courseware requirements from selected respondents (teachers and students) from Sekolah Kebangsaan Tembak, Kedah. The preliminary findings have been mapped to Universal Design Learning (UDL) which focuses on three main theory components

which are (i)engagement, (ii)representation, and (iii)action and expressions. The findings are then used in the development phase which involves analysis, design, development, implementation, and evaluation. These development phases will ensure that the development is systematically planned and executed (Widyastuti & Susiana, 2019; Ratnaditya et al, 2022). To complete the testing phase, the courseware then undergoes functionality and usability testing with the chosen respondents. Findings from the testing results indicate that the courseware developed to meet all requirements set at the early planning stage and is suitable to be used in teaching Islamic Adab for year 2 students.

2. METHODOLOGY

For this study, three main objectives have been set up. All three objectives have their approach and method to ensure each objective is accomplished. The methodology adopted in this study is illustrated schematically in Table 1.

Table 1. A schematic overview of the methodology adopted in this study

RESEARCH OBJECTIVE	To identify components for courseware of Islamic Adab for Year Two students	To develop courseware of Islamic Adab for Year Two students	To evaluate the functionality of courseware of Islamic Adab for Year Two students
RESEARCH APPROACH	<ul style="list-style-type: none"> • Empirical Study • Theoretical Study 	<ul style="list-style-type: none"> • Project development 	<ul style="list-style-type: none"> • Functionality and usability testing

Empirical and theoretical studies have been conducted in the process of achieving objective one which is to identify components for for courseware of Islamic Adab for Year Two students. In this phase, a preliminary study is also conducted to confirm the components gathered. From the first phase, five components have been identified which are interfaces, functionality, content, user-friendliness, and reliability. These components are then mapped with three main UDL principles due to the possibilities and functionality of UDL in real classrooms and online classrooms (CAST, 2020). The UDL principles are fulfilled through the implementation of the identified factor as discussed in the result and discussion section.

3. RESULTS AND DISCUSSION

First phase of the study objective is to identify components for courseware of Islamic Adab for Year Two students. To achieve this objective, empirical and theoretical studies have been conducted. To ensure that the components gathered are right and meet the needs of the target users, a preliminary study is also conducted to confirm the components gathered. The possibilities and functioning of UDL in both real classrooms and online classrooms lead to the mapping of these components with three primary UDL principles. Table 2 shows how the determined components satisfy the UDL principles resulted from phase one.

Table 2. Mapping of UDL principles with identified components

UDL PRINCIPLES	UDL CRITERIA	COMPONENTS
ENGAGEMENT	<ol style="list-style-type: none"> 1. Make sure that students have the opportunity to engage in the activity. 2. Provide students with the opportunities to do activities 	<ol style="list-style-type: none"> 1. Interfaces (offer appropriate use of text, image, color, icon, and button) 2. Functionality (perform its intended function and meet user requirements)
REPRESENTATION	<ol style="list-style-type: none"> 1. Different types of content, including learning notes, and teaching videos will be offered to accommodate various learners. 2. Offer a wide variety of different activities like quizzes. 	<ol style="list-style-type: none"> 3. Content (provide different types of content) 4. User-friendliness (designed for the user's convenience and ease of interaction) 5. Reliability (perform its function without failure at any specific time)
ACTION AND EXPRESSIONS	<ol style="list-style-type: none"> 1. Provide self-assessment exam for students to self-evaluate 	

From the components identified, the project development has been conducted. Figure 1, Figure 2 and Figure 3 show the sample interfaces of Courseware for Islamic Adab for year two students.



Figure 1. Main interface of Courseware for Islamic Adab for year two students.



Figure 2. Interface of teaching video



Figure 3. Interface of activities

The courseware was then evaluated through a collaborative effort involving a supervisor (1 person), IT experts (2 persons), and users (teachers and students). The testing is based on the five components that have been identified in phase one and have been applied in the project development. This testing and evaluation phase evaluate the functionality of courseware of Islamic Adab for Year Two students based on the components identified. Table 3 shows summarized results of the testing and evaluation of Courseware for Islamic Adab for year two students that have been conducted.

Table 3. Testing and Evaluation of Courseware for Islamic Adab for Year Two Students

TESTER	COMPONENTS				
	Interfaces	Functionality	Content	User Friendliness	Reliability
SUPERVISOR	80%	80%	80%	80%	75%
IT EXPERTS	80%	75%	80%	75%	80%
USER (TEACHERS)	90%	80%	85%	80%	80%
USER (STUDENTS)	85%	80%	80%	80%	80%

The testing and evaluation results showed that the courseware developed for this study fulfils the functionalities required based on the five components. From the findings, it can be summarized that the courseware provides a positive learning experience for the target users.

4. CONCLUSION

The main aim of this study is to develop a standalone courseware for Islamic Adab for year 2 students. To achieve the main aim, three objectives have been set. In the first phase, five components have been identified which are interfaces, functionality, content, user-friendliness, and reliability. These components are then mapped with three main UDL principles due to the possibilities and functionality of UDL in real classrooms and online classrooms. From the mapping, the courseware has then been developed. The final phase has then been executed to evaluate the courseware functionality and usability. Findings from the testing results indicate that the courseware developed meets all requirements set at the early planning stage and is suitable to be used in teaching Islamic Adab for year 2 students.

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