# Development of a Digital English Module for Students to Improve Text Reading Skills at the Sekolah Tinggi Ilmu Ekonomi Pembangunan Nasional Malang

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**Abstract**
The integration of digital technology in university-level English language learning is vital for enhancing student engagement and interaction. This research develops Digital Modules using the R&D method and the R2D2 model, including stages of definition, development, and dissemination. Designed to be self-contained, independent, adaptive, and user-friendly, the modules meet modern educational needs. Evaluations by media experts, subject matter experts, and students scored 88.5%, 93.1%, and 92.6%, respectively, indicating that the modules are effective without requiring revisions. The modules aim to improve text reading skills through various activities, multimedia elements, and different text formats like news articles and essays. Conducted with 65 undergraduate Management students at the International Institute of Tourism and Business, the study shows significant improvements in reading skills. The modules are highly accessible, facilitating independent learning and enhancing material comprehension. The developed digital modules are suitable and effective for English language learning, meeting all objectives and criteria.

## 1. Introduction

In the context of English language learning at the university level, the role of lecturers as motivators and facilitators is crucial for enhancing student participation and active interaction (Suparjo, 2013). The use of digital technology in English language learning has become a major trend (Azis, 2019) and this technology can serve as an effective learning medium (Shohib, 2018). Therefore, the development of Digital Modules as teaching materials is relevant to addressing these challenges. A digital module consists of a series of interconnected learning activities via links and is equipped with multimedia. This module can also be operated using a computer (Ibrahim & Purwatiningsih, 2017). Digital Modules enable easier access to materials, enhance material comprehension, and provide flexibility for students (Sutama & Fajriani, 2021). Lecturers play a key role in guiding student activities and enhancing understanding through the use of technology in teaching material development (Effendi et al., 2023). To improve text reading skills in university-level English courses, this research aims to develop teaching materials in the form of Digital Modules that meet validity criteria in terms of content, construct, and practical criteria.

Teaching materials are resources used to support the learning process, designed in a structured manner to achieve educational goals (Hamdani & Jauhar, 2014). They are more than just collections of learning content; they encompass a series of educational tools including learning materials, teaching methods, constraints, and evaluation methods, all systematically and engagingly designed. The aim is to meet predetermined learning objectives, developing competencies or sub-competencies in their complexity (Widodo & Jasmadi, 2008). Therefore, careful planning in the development of teaching materials is essential to maximize their benefits for users.

Teaching materials serve three main functions: as the primary source of information in classical learning, as the main learning medium in individual learning, and as an integrated component in group learning (Prastowo, 2012; Pujiatna et al., 2020) A module is a printed tool that contains learning materials, methods, and objectives, facilitating self-directed learning through exercises (Indriyanti et al., 2017; Pourrajab et al., 2011). Both teaching materials and modules are crucial for managing learning, ensuring consistency, and providing flexibility (Anderson et al., 2008; Garrison & Kanuka, 2004). They are also vital in distance learning, assessing student understanding, and adapting to developments (Bates & Sangra, 2011; Millen & Cobb, 2010; Wiggins & McTighe, 2005).

A module is a structured learning material designed in language suitable for students' comprehension levels, facilitating self-directed learning (Prastowo, 2012). It offers flexibility for students to learn at their own pace, with teachers acting as facilitators (Smaldino, 2019). Modules aim to help students master competencies systematically and efficiently (Purwanto, 2022). Effective modules should be self-instructive, self-contained, stand-alone, adaptive, and user-friendly (Dharma, 2008). They offer advantages like flexible learning pace, integration of various learning elements, and high validity through rigorous testing (Smaldino, 2019). However, they also have drawbacks such as high verbatim content, the need for high concentration, static nature, complexity in updating, and significant time and printing costs (Ibrahim & Purwatiningsih, 2017). Despite these challenges, modules remain valuable for their high validity and flexibility (Rahmi et al., 2021).

## 2. Method

This research employs the R&D (Research and Development) method to develop teaching materials for an English course using the R2D2 design model by (J. Willis & Wright, 2000). The R2D2 model, based on constructivism, is chosen for its suitability to modern learning contexts. In contrast, (G. B. Willis, 2004) describes behaviorist instructional design as sequential, top-down, and focused on predefined objectives and expert involvement. the development process involves three flexible stages:

1. Define Stage: Establish a participatory team, identify sustainable solutions, and understand the learning context.
2. Design and Development Stage: Select the development environment and media, and draft the teaching materials.
3. Dissemination Stage: Distribute the materials to lecturers and students.

This research was conducted at Sekolah Tinggi Ilmu Ekonomi Pembangunan Nasional Malang with 65 undergraduate Management students from the 2023 cohort. The trial process includes evaluation by media and subject matter experts, individual trials, small group trials, and field trials. Data from these evaluations is collected via questionnaires and analyzed using qualitative feedback and descriptive statistics to assess the quality of the teaching materials on a 5-point scale (most not capable – very capable).

## 3. Result and Discussion

This study creates digital modules following the R2D2 methodology, spanning from initial definition to development and dissemination. These modules are pivotal for enriching learning experiences, ensuring consistency, and allowing adaptability (Anderson et al., 2008; Garrison & Kanuka, 2004). The primary aim is to bolster reading skills through structured content, fostering their development. A well-crafted module should offer a logical and sequential learning path, reflecting systematic instructional planning and clear learning objective (J. W. Willis & Edwards, 2014). Based on the findings, the table of contents clearly indicates that the digital modules developed by the researchers are systematic, as recommended by (J. Willis & Wright, 2000). In addition to the content being linear and systematic, Willis also recommends the involvement of media and subject matter experts in the product development process. In line with this recommendation. For instance, the modules feature organized covers and tables of contents, exemplifying their systematic approach.



Picture 1. Cover and Tables of Contents Modules

### 3.1. Result and Discussion 2

The Module was analyzed by three media experts. As a product of the instructional material in this research achieves a final score of 88.5%. With this result, it can be considered that the module meets the criteria without requiring revisions, as it falls within the range of 75%-89%. Media experts suggest that the choice of simple design is indeed preferable, considering that the target audience is college students rather than children who require many pictures to maintain interest. Additionally, they find the presentation satisfactory, particularly highlighting the inclusion of simple questions at the beginning of

each chapter with an engaging design. This serves to provide initial stimulus before reading. Apart from effective media presentation, the content of a product also needs attention. Hence, in this study, subject matter experts are necessary to assess the extent of content suitability.

According to (Allen & Seaman, 2006), when creating digital English modules, the learning objectives should encompass various topics such as text comprehension, vocabulary development, and textual analysis. To maintain students' attention, it's crucial to select texts appropriate for their reading proficiency level and include various text formats like news articles, essays, or short stories. Digital modules need to be carefully structured with essential components like introductions, objectives, reading strategies, activities, and evaluations. Although subject matter experts argue that this module meets all requirements, they suggest the inclusion of more content to deepen students' understanding, even if it's just briefly outlined. This recommendation is certainly valid.

Moreover, this module employs active learning techniques by combining informal language and relevant real-world content, providing opportunities for feedback on respondents' reading abilities, and evaluating the module's effectiveness after use as the primary step in developing English modules (Grabinski et al., 2020). The content of this module can enhance reading skills. Subject matter experts also appreciate that digital modules can consider the use of modules in distance or blended learning, with designs that facilitate student access. As (Rahmi et al., 2021) suggests, module development requires significant time and printing costs, so digital modules reduce printing costs, making them not only more accessible but also more efficient. With a final analysis result of 93% agreement from subject matter experts, this digital module can proceed for student respondents as it's deemed suitable without the need for revisions.

### 3.1.1 Result and Discussion 3

The result of the Likert scale analysis is 92.6%, where respondents agree that with the presence of this digital module, they can understand the learning material independently and access it conveniently from anywhere. As outlined by (Dharma, 2008), modules must fulfill five main characteristics: they should be self-learnable, independent (not related or dependent on other instructional materials), stand-alone, adaptive, and user-friendly. These five aspects align with the responses from the sampled students. One respondent stated that this digital module can be learned independently and easily from anywhere. Respondents also noted that this module helps enhance their reading skills. After yielding satisfactory responses, the digital module can be deemed suitable and effective, meeting all the objectives of its development process.

## 4. Conclusion

Digital modules represent an adaptive response to the advancements of the digital age, and as the digital world progresses, the educational sector must keep pace. This digital module was developed using the R&D research method with the R2D2 model, encompassing the stages of definition, development, and dissemination. Digital modules are crucial for enhancing learning, maintaining consistency, and providing flexibility. They are self-contained, independent (not reliant on other instructional materials), stand-alone, adaptive, and user-friendly. The final percentage results from three evaluations are as follows: media experts gave it 88.5%, subject matter experts 93.1%, and the student sample 92.6%. The modules content has also shown an improvement in the reading skills of students in the Management program at the Sekolah Tinggi Ilmu Ekonomi Pembangunan Nasional Malang.

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