# DEVELOPMENT OF FLIPBOKS FOR EDUCATIONAL RESEARCH COURSES ON STUDENT LEARNING OUTCOMES

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## ABSTRACT

The purpose of this study is to create a flipbook product for the fifth semester of Nusa Cendana University's education research course, with the goal of meeting student learning objectives. The term flipbook is no longer unfamiliar, especially when it made its way to Indonesia. The flipbooks one type of digital book that is becoming more and more popular. Flipbooks are essentially digital books that are three-dimensional and can include text, pictures, videos, music, lyrics, and animated animations. Flipbooks themselves fall under the umbrella of digital books, or ebooks. Development, or more formally known as Research and Development (R&D), is this research methodology. The goal of this project is to create a novel tool that facilitates learning. Research and creation (R&D) using the 4 D paradigm (Define, Design, Develop, and Disseminate) is used in the creation of Sony Vegas Media using the Anchored Instruction methodology. findings from research Results of a limited-scale survey conducted by 15 sixth-semester students in the study program Recreation for Physical Education, Health, and Education. Out of 16 questions, 89.83% of the students' responses fell into the "Very Good" category. In summary: A creative way to enhance student learning outcomes in educational research courses could be to create flipbooks. Flipbooks can offer a more engaging and dynamic learning environment through the use of technology and a methodology.

**Keywords:** Flipbook; Educational Research; Student Learning Outcomes.

## INTRODUCTION

Media encompasses all formats and channels utilized for information processing, according to the Association for Education and Communication Technology (AECT). Media, coupled with the tools used for these activities, is defined by the National Education Association (NEA) as any object that may be controlled, seen, heard, read, or talked about(Muhson, 2010). According to Bretz (in (M. H. Wibowo & Purnamasari, 2019)), there are three primary components that make up media: sound, images, and movement. Three categories comprise the continuum of shapes that are perceivable through the sense of sight: pictures, lines, and symbols. In addition, Bretz distinguishes between recorded media (recording) and broadcast media (telecommunication), creating eight different categories for media: (1) Motion picture media; (2) Sound picture media; (3) Moving picture media; (5) Still picture media; (6) Semi-moving picture media; (7) Audio media; and (8) Print media(Susanto & Lestari, 2021). In order to raise a young generation with morality and knowledge, education is essential. A number of variables, such as the curriculum, educational settings, faculty, and students, affect how well education works. Education has a critical role in developing highly skilled people resources that may be used to accomplish national objectives. Good education teaches students not just how to study but also how to use the different types of media that are currently available. (1) The design of local culture-oriented flipbook learning materials for biology courses on coordination systems; (2) The degree of validity of local culture-oriented flipbook learning materials for biology courses on coordination systems; and (3) The degree of applicability of locally oriented flipbook learning materials for educational research on coordination systems (Febrianti, Ida Bagus Putu, & Ida Ayu, 2022).

The term flipbook is no longer unfamiliar, especially when it made its way to Indonesia. The flip book is one type of digital book that is becoming more and more popular. Flip books are

essentially digital books that are three-dimensional and can include text, pictures, videos, music, lyrics, and animated animations. Flip books themselves are therefore classified as digital books or ebooks. What needs to be emphasized in Roll's statement is "High technology must reach those who are not reached, and the equivalent of high technology is when infrastructure is used wisely. Currently education is in the information era with extraordinary speed in the expansion of knowledge. The rapid increase in information is supported by the use of digital media and technology which is called the information highway (Kartikasari, Sumardi, Cahya Kartika, & Tanti, 2023). Flipbooks focused on local culture showcase the current culture to draw in pupils. In addition, flipbooks that focus on local culture and are connected to the curriculum will teach students the value of conserving their culture, enabling them to comprehend both the subject matter and the state of local culture today(Juliani & Ibrahim, 2023). In addition to being primarily focused on writing, the kvisoft flipbook maker application can also incorporate motion animation, video, and audio to create engaging interactive learning materials that will aid in the learning process. so that education is not boring (E. Wibowo & Pratiwi, 2018).

A powerful learning model combined with audio-visual learning materials, presentations help students gain more information and remember more concepts. Therefore, it can improve the abilities of different students (Guven, 2009). (Soraya Anori, 2013) states that students who are exposed to reading media using intensive learning have a very different effect on problem solving. Compared to other learning models, the strong learning model shows students' positive attitudes, especially in developing communication skills. The automatic learning learning model using mixed media and video in education is able to increase student and teacher interaction in carrying out assignments thereby increasing the effectiveness of better education (Elcin & Sezer, 2014). According to (Susanto & Riyanto, 2020), a strong learning model shows students' enthusiasm for learning and is able to increase students' knowledge, whether students have learning problems or not. Problem-based learning uses technology (video) as a way to present problems or issues to students, so that learning becomes more fun and progressive. According to (Soraya Anori, 2013) it is said that technological developments play an important role in education.

Low student motivation and learning outcomes were among the findings from the observations and observations made by researchers in the Nusa Cendana University Physical Health and Recreation education study program, specifically in the Educational Research course. Students believe that the subject covered in educational research courses is quite complex. This leads to a situation where students merely learn things by memorization; in addition, there are very few creative teaching resources available in higher education, and those that are are typically limited to textbooks. Thus, innovations and imaginative applications of interactive media are required. to create interactive media and employ cutting-edge learning techniques in order to solve the aforementioned issues. It is envisaged that students will be more actively involved in their education and more motivated to learn through the use of interactive media and cutting-edge learning models.

The Anchored Instruction learning methodology is used in conjunction with the development of Flipbook Teaching Materials. Because they are more diversified, get favorable feedback from students, and make it easier for students to understand educational research themes, it is reasonable to assume that the design of audio- and visual-based learning media and textbooks will boost student motivation and learning results. Software that can be used to make or edit videos in the format of movies, documentaries, or short films is used in flipbook instructional materials. Utilizing Flipbook Maker Pro 11 software to create educational materials(Andani & Yulian, 2018).

## RESEARCH METHODS

Development research, also referred to as research and development (R&D), is used in this study. The goal of this project is to create a novel tool that facilitates learning. Created Flipbook Media utilizing the Anchored Instruction approach through the 4 D (Define, Design, Develop, and Disseminate) model of Research and Development (R&D)(Achmad Afandi, 2019). There are four plans in the Flipbook Development Process, including:

a. Research and Data Collection: Getting pertinent information on the content to be presented is the first step in this process. This entails assessing the needs of the students and coming up with learning goals.

b.  Planning and Design: The flipbook structure must be designed after the data has been gathered. This include writing the text, gathering the supplies, and deciding which program—Heyzine or Flip Book Maker, for example—to use to make the flipbook. Moreover, appealing graphic design is necessary to improve visual appeal.

c.  Product Development: During this phase, the designed flipbook is put into use. Text, pictures, videos, and other multimedia components that aid in learning can all be included in content. Users can upload PDF files to apps like Heyzine, which then transform them into an interactive flipbook format with links and multimedia.

d.  Testing and Validation: After the flipbook is created, it's critical to carry out student trials. Learning material can be refined and improved with the help of user feedback. To guarantee the quality and appropriateness of the flipbook, validation by subject matter and media experts is also required.

Quantitative and qualitative analysis approaches are employed in the data collection process to analyze and evaluate the outcomes of reviews and trials of educational material production products.

a.  The validation instrument questionnaire collects information, recommendations, and criticism for changes from material, design, and learning media professionals as well as students who serve as test subjects. Qualitative data analysis is utilized to process these data. Data analysis is a resource for bettering or revising products.

b.  The data acquired in the form of assessment percentages is analyzed using quantitative analysis, which is the second type of data analysis.

## RESULTS AND DISCUSSION

Three experts—material experts, media experts, and language experts—validated the findings of the research on Flipbook Teaching Materials for Educational Research Courses on Learning Outcomes for Physical Education, Health, and Recreation Students at Nusa Cendana University. In addition to being validated by three selected specialists, it is also examined using data from preliminary field tests. The full set of data is displayed as follows:

1.  Results of Material Expert Assessment

Validation by material experts has been conducted on instructors teaching courses in educational research. Table 1 presents an overview of the material expert validation results.

Table 1. Material expert validation results

| No | Assessment Aspects | Score | | | | Total Score got it | Total expected score | Percentage |
|---|---|---|---|---|---|---|---|---|
| | | 4 | 3 | 2 | 1 | | | |
| 1 | Material Characteristics | 15 | 0 | 0 | 0 | 60 | 60 | 100% |
| | Total | | | | | 60 | 60 | 100% |
| | Criteria | | | | | Very Valid | | |

Regarding the proportion of material features, the material expert's assessment yielded 100%, meeting the requirements of "very valid".

2.  Results of the Media Expert evaluation

Lecturers who are experts in educational research and learning media have validated media experts. Table 2 presents an overview of the validation results from media experts.

Table 2. Results of validation by media experts

| No | Score | Total Score | Percentage |
|---|---|---|---|

| | Assessment Aspects | 4 | 3 | 2 | 1 | got it | Total expected score | |
|---|---|---|---|---|---|---|---|---|
| 1 | Characteristics of Learning Media | 13 | 6 | 0 | 0 | 70 | 76 | 90,% |
| | Total | | | | | 70 | 76 | 90% |
| | Criteria | | | | | | Very Valid | |

90% of the material expert assessment results meet the "very valid" criterion when it comes to the features of the learning media.

3. Limited trials

The purpose of this small-scale experiment was to get a clear image of the caliber of the learning materials that were being created. Fifteen sixth semester students were administered a questionnaire as part of this small-scale experiment. Table 1.5 displays the findings of a small number of experiments.

Table 3. Trial results are limited

| No | Assessment Aspects | Score | | | | Total Score got it | Total expected score | Percentage |
|---|---|---|---|---|---|---|---|---|
| | | 4 | 3 | 2 | 1 | | | |
| 1 | Student response | 48 | 30 | 0 | 0 | 285 | 320 | 89,83% |
| | Total | | | | | 285 | 320 | 89,83% |
| | Criteria | | | | | | Very Good | |

According to the findings of a small-scale study conducted by fifteen sixth-semester students in the Physical Education, Health, and Recreation study program using sixteen questions, the overall percentage in the "Very Good" category was 89.83%.

**Discussion**

Based on the previously described research findings, the following can be said about the findings: Each component item in the material experts' overall media assessment received a score of 4. This indicates that the evaluation of the media aspect as a whole has been completed. Material experts provide an assessment with an average score of 4.0 and an average percentage of 100% based on the conducted research, indicating that the medium is included in the extremely valid category. (Susanto & Lestari, 2020) idea, which holds that the learning materials must be beneficial and in line with the curriculum, lends further credence to this.

After then, each component item receives a score of $\geq 2$ from media professionals who conduct the assessment. The software has good visual elements because all of the photographs are included with captions, each slide has motion, and voiceover content has been included to draw in additional students. According to (Susanto & Riyanto, 2020), when creating media, it is important to consider the attributes of the audience. Media specialists offer an evaluation with an average percentage of 90% based on the conducted research, indicating that the media falls into the very valid category. Subsequently, the author carried out a limited-scale experiment. This test involved giving questionnaires to fifteen sixth-semester students enrolled in the Physical Education, Health, and Recreation study program. The results showed that the media scored 3.58 out of 89.83%, placing it in the "very good" category. It is simple to use this Powtoon-based media to aid pupils in understanding the subject matter. Students' excitement for watching and using videos for learning activities is evidence of this. According to (Ratno Susanto, Achmad Afandi, & Nur Khozanah Ilmah, 2022), a learning environment would boost students' passion and motivation in learning if they are able to have firsthand experience (via media, demonstrations, field excursions, or dramatization). Learning media, according to Fleming and (Purmadi & Surjono, 2016), offers pupils real experiences

that facilitate learning, particularly in mastery and the retention and comprehension of abstract symbols. The genetic interactive module is particularly effective at improving students' cognitive learning outcomes and conceptual understanding, according to (Susanto & Lestari, 2020).

There are various advantages of using flipbooks for learning, such as the following: Interactivity: Flipbooks give students the chance to engage directly with the content, which boosts their drive and enthusiasm for studying. Accessibility: Students may study alone more easily using Flipbooks because they can be accessed anywhere, at any time. Presenting Interesting Information: Flipbooks can deliver information in a more engaging and comprehensible way by including multimedia elements.

## CONCLUSION

This study suggests that a problem-based learning approach be used in conjunction with the creation of flipbook-based instructional materials for students enrolled in educational research courses at Nusa Cendana University.A creative way to enhance student learning outcomes in educational research courses could be to create flipbooks. With the help of technology and an organized procedure, flipbooks may make learning more engaging and dynamic.

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