PERCEPTION OF USER EXPERIENCE: CASH AND BANK LEARNING VIDEO IN INTRODUCTORY ACCOUNTING COURSE AT DIPLOMA 4 LEVEL

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ABSTRAK

Banyak perubahan yang terjadi akibat digitalisasi pendidikan di Indonesia saat ini, terutama dalam hal belajar mengajar. Teknologi digital telah dimasukkan ke dalam proses pendidikan oleh banyak perguruan tinggi dan universitas, salah satunya video pembelajaran. Video pembelajaran dapat berupa rekaman kelas yang diunggah ke internet atau video tutorial yang dibuat khusus untuk mata pelajaran tertentu. Video pembelajaran dapat membantu mahasiswa memahami materi dengan lebih mudah dan dapat diakses oleh mahasiswa kapanpun dan dimanapun, sehingga memudahkan proses belajar mengajar. User Experience (UX) berkaitan dengan emosi, perasaan, dan pemikiran yang dialami pengguna saat menggunakan suatu produk atau layanan. UX bisa diterapkan pada video pembelajaran, hal ini dapat dicapai dengan memperhatikan beberapa hal, seperti penyampaian materi secara jelas dan mudah dipahami. Sehingga pada penelitian ini dilakukan penilaian UX terhadap video pembelajaran. Video pembelajaran menggunakan materi kas dan bank dalam mata kuliah pengantar akuntansi pada jenjang diploma4 dengan konsep motion graphic. Motion graphic dipilih karena keluwesannya untuk menyampaikan informasi hal ini untuk menarik minat mahasiswa. Pada penelitian ini terdiri dari 7 proses antara lain: 1) penentuan tujuan dan sasaran; 2) pembuatan skenario dan naskah; 3) persiapan peralatan; 4) perekaman; 5) penyuntingan; 6) publikasi; dan 7) penilaian. Pada proses penilaian dilakukan pengisian kuesioner oleh responden. Kuesioner terdiri dari 10 pertanyaan dengan aspek use (usefulness, satisfaction, and ease of use). Nilai setiap pertanyaan pada kuesioner berkisar antara 1 sampai 4 dengan ketentuan antara lain 1) buruk; 2) cukup; 3) baik; dan 4) baik sekali. Responden terdiri dari 10 orang berbeda setiap hari dalam waktu 7 hari. Pada hasil pengisian kuesioner didapatkan kurva fluktuatif.

Kata Kunci: user experience, video pembelajaran, pendidikan diploma

ABSTRACT

Many changes have occurred due to the digitalization of education in Indonesia today, especially in terms of teaching and learning. Many colleges and universities have incorporated digital technology into the educational process, one of which is learning videos. Learning videos can be in the form of class recordings that are uploaded to the internet or tutorial videos made specifically for certain subjects. Learning videos can help students understand material more easily and can be accessed by students anytime and anywhere, thus facilitating the teaching and learning process. User Experience (UX) deals with the emotions, feelings, and thoughts that users experience when using a product or service. UX can be applied to learning videos by focusing on several factors, such as delivering material that is clear and easy to understand. So in this study, a UX assessment was carried out on learning videos. Learning videos using cash and bank material in introductory accounting courses at the diploma level with the concept of motion graphics Motion graphics were chosen because of their flexibility in conveying this information and attracting students' interest. This study consisted of seven processes, including: 1) determining goals and objectives; 2) making scenarios and scripts; 3) equipment preparation; 4) recording; 5) editing; 6) publication; and 7) assessment. In the assessment process, the respondent fills out a questionnaire. The questionnaire consists of 10 questions with aspects of use (usefulness, satisfaction, and ease of use). The value of

each question in the questionnaire ranges from 1 to 4, with the following conditions: 1) bad; 2) enough; 3) good; and 4) very good. Every day for seven days, ten different people responded. As a result of filling out the questionnaire, a fluctuating curve was obtained.

Keywords: user experience, learning video, diploma education

I. INTRODUCTION

igital transformation is a change that occurs in society which is characterized by the increasing use of digital technology. Digital transformation in education in Indonesia today has brought many changes [1], especially in the way of learning and teaching [2]. Many schools and universities have adopted digital technology in the learning process, such as using electronic devices such as laptops and tablets, and taking online classes [3].

Learning videos are one form of digital technology utilization in education in Indonesia. Learning videos can be used to support the learning process in schools or universities, and can help improve the effectiveness and efficiency of the teaching and learning process. Learning videos can be in the form of class recordings uploaded to the internet, or video tutorials made specifically for certain subject matter. Learning videos can be accessed by students anytime and anywhere, thus facilitating the teaching and learning process.

Vocational education in Indonesia is one type of education after graduating from senior high school (SMA) or madrasah aliyah (MA) aimed at preparing students to enter the workforce. Vocational education usually lasts for one to four years depending on the level, and focuses on training specific skills that are useful for working in a particular field. Vocational education in Indonesia can be followed at vocational high schools (SMK) or vocational schools (SV), and can produce students who are ready to work in the fields of engineering, industry, health, tourism, and others.

Learning videos can be used in vocational education as one of the tools in the learning process [4]. Learning videos can be in the form of class recordings uploaded to the internet, or video tutorials made specifically for certain subject matter. Learning videos can help students understand the material more easily, and can be accessed by students anytime and anywhere, thus facilitating the teaching and learning process [5]. In addition, learning videos can also be used as a means of practicing skills, for example by showing the stages in a particular job or technique.

User experience (UX) is a term used to describe how a user experiences a product or service, usually in the context of digital technology. UX relates to the emotions, feelings, and thoughts felt by users when using a product or service. UX is usually measured using methods such as surveys, interactions, or observations. A good UX will make users feel

comfortable, easy, and happy when using a product or service

UX can also be applied in learning videos. A good UX in a learning video will make students feel comfortable, easy, and happy when watching the video. This can be achieved by paying attention to several things, such as presenting the material clearly and easily understood, using a clear and clear voice, and choosing an attractive appearance that makes students interested in watching the video. In addition, UX in learning videos can also be improved by including interactive features such as quizzes or questions to evaluate students' understanding.

UX measurement is usually done on software. The research includes: 1) Perception of User Experience towards Online Food Delivery Applications (Case Study of Madhang.id Application Users); 2) Analysis of Usability and User Experience Aspects of Website and Mobile Radio Streaming Applications (Study on Prambors Radio Website and Mobile Applications); and 3) Comparative Analysis of User Experience in Video Conference Applications using the UX Curve Method (Case Study of Zoom and Meet).

The first study [6] describes Madhang.id as an application that provides online food delivery services. In this study, the context of the four elements of UX was studied, which was dissected using a descriptive-quantitative method. In this study, it is concluded that the application is able to reach a wide market share, so it requires more attention in terms of design and content related to UX.

The second study [7] aims to obtain the usability and UX levels of the Radio Prambors website and mobile application. The results of analyzing the level of user experience show that the average value of each parameter of the UEQ questionnaire on the Radio Prambors website and the Radio Prambors mobile application reaches ≥ 0.8 .

In the third study [8] the UX Curve method was used to compare long-term user experience in the Google Meet and Zoom applications. For each application there are 10 respondents who are active students. In the UX curve template, respondents describe their experience in five dimensions: General UX, attractiveness, ease of use, utility, and level of use. The number of improvement curves generated from Google Meet was more than Zoom, but conversely, the curves deteriorated and stabilized.

In the fourth study [9], a new software product must have a good user experience. A good user experience means that the product has met the needs of its users. Therefore, evaluation of user experience is necessary. This study aims to measure user experience in using Yobagi. The evaluation utilizes User Experience Questionnaire (UEQ) tool, which consists of six scales namely attractiveness, efficiency, perspicuity, dependability, stimulation, and novelty. This means that Yobagi users have excellent user experience in using Yobagi. In addition, Yobagi has fulfilled the criteria of good software by having excellent user experience score.

In the fifth study [10], user-centered design (UCD) is a method used to develop a product by involving users in its development. Products developed using UCD methods will have a better user experience so that users will be more comfortable using the product. The purpose of this research is to improve the UX of the portal website by using the UCD method. The initial value and the final product value will be assessed using the User Experience Questionnaire (UEQ). The results of the study show an improvement on the UEQ scale: attractiveness from 1.16 to 1.60, perspicuity from 1.10 to 1.54, efficiency from 1.11 to 1.42, dependability from 1.02 to 1.32, stimulation from 0.87 to 1.61, and novelty from 0.59 to 1.14, with overall scores above average or even good on one criterion. This result shows that the feedback from the respondents regarding improvement of the portal website is better.

In the sixth study [11], Bizmeth is an Android-based application created to make it easier for users to build the widest possible business network quickly and easily. Based on the results of observations, it was found that there were negative responses from users regarding experiences when using the application both through application comments on Google Playstore and through the admin, a decrease in the number of users with 34 installed users and 19 users who uninstalled, and found 6 features that were not in accordance with what users needed. Based on these findings, researchers conducted research to design the UI and UX of the bizmetch application to suit user needs. The result of this research is an application prototype design that can be used by developers to improve the user experience of the application.

Aisyah, S., Furqan, M., & Sudriyanto, S. make suggestion to design and prototype renewal with a more attractive and user-friendly user interface and user experience. The method used is the prototype method. [12]

In the seventh study [13], this research developed tambourine musical instruments in digital (electronic) form by combining elements of the original traditional tambourine art with information technology in an effort to preserve the traditional art of tambourine from children, adolescents, and adults. Of course, with the right functional needs analysis from tambourine art experts and supported by non-functional needs analysis from multimedia experts, This collaboration will produce a software application called E-Rebana. In the grouped results, the E-Rebana application has a positive value on attractiveness, pragmatic quality, and hedonic quality. On all six UEQ result scales (attractiveness, perspective, efficiency, dependability, stimulation, and novelty), the E-Rebana application has a positive benchmark. The E-Rebana application also has positive results and fairly good consistency on all six scales.

In the eighth study [14], this study further analyzed the user experience design of children's watches and focused on explaining the characteristics of children's users as well as analyzing the behavior patterns of traditional watch users and the user experience design of children's watches. On this basis, research was conducted to highlight the user experience design of the payment interface of children's watches and the application features and functions of the payment interface of children's watches. Finally, in this study, we combined the design of our own "Qian Dai Wallet" APP to carry out the user experience effect and interface design analysis of the payment interface design of children's watches to propose the design method of the payment interface of children's watches based on the user experience effect and ensure that the designed product can meet the requirements of children's users.

In the ninth study [15], User-centered design allows organizations to focus on the needs of their customers and users while most industries are facing critical pressures from green and digital transformation due to the pandemic. Therefore, using design thinking and systems thinking to guide digital transformation and green transformation is becoming increasingly important under these circumstances. The purpose of this article is to provide a cross-disciplinary foundation of user experience design related to green and digital transformation.

In the tenth study [16], To improve user experience, this paper puts forward eight HCI design principles for DMS based on the concepts of clarity, reliability, efficiency, and motivation. The experimental results show that the eight principles are beneficial to improve user experience, make users feel comfortable, and improve the efficiency of DMS in teaching.

From the previous research references, it can be seen that there are not many UX measurements of learning videos. Therefore, in this research, UX measurement is carried out on the learning video that is being developed.

II. RESEARCH METHODS

This research consists of several processes. These processes include: 1) determining learning video goals and objectives; 2) creating learning video scenarios and scripts; 3) preparing equipment and production tools; 4) recording learning videos; 5) editing learning videos; 6) publishing learning videos; and 7) evaluating learning videos.

In the first process, it is important to determine what material will be presented and how to present it in order to meet the predetermined goals and objectives. In the second process, scenarios and scripts are the basis of a learning video, so they need to be considered well so that the resulting video will be of good quality and in accordance with the predetermined objectives. In the third process, preparing production equipment and tools. This includes the selection of cameras, microphones, lighting, and other equipment needed for the learning video production process.

The fourth process is the main stage in the process of making learning videos. Make sure that the recording is done well so that the results are of high quality and in accordance with the scenario and script that has been made before. In the fifth process, after the recording is complete, the next step is to edit the video to match the scenario and script that has been made. In the sixth process, after the editing process is complete, the learning video can be published through various platforms such as YouTube or Vimeo, or can even be hosted directly on the website of the school or institution concerned. The last step in the learning video making process is evaluation [17]. This is important in order to determine whether the video is in accordance with the predetermined objectives and whether the video is effective in achieving the predetermined goals.

III. RESULT AND DISCUSSION

The aims and objectives of the learning video in this study were determined to include: 1) to provide additional learning resources for students. Learning videos can be used as an additional learning resource for students, so that they can help improve students' understanding and knowledge of the material being taught; 2) sharpen students' skills. Learning videos can be an effective medium to hone students' skills, for example by providing demonstrations or tutorials on how to do a job or process; 3) helping students learn independently. Learning videos can help students learn independently, especially for students who have different learning needs from other students; 4) increase students' motivation to learn. By presenting learning materials in the form of interesting videos, students can be more motivated to learn and follow the learning process; and 5) help reduce the number of students who are late or absent. Learning videos can help reduce the number of students who are late or absent, because students can access learning videos online and learn from anywhere.

Before making scenarios and scripts, it is necessary to first determine the concept of learning videos that will be used. From the determination of the goals and objectives of the learning video in this research, motion graphic is the best alternative to be used as the concept of the learning video in this research. Motion graphic is an animation technique that uses movement, visual effects, and text to convey information or messages to the audience. The concept of motion graphics can be used in learning videos to help increase student interest and understanding of the material presented. This is because motion graphics have advantages such as: 1) presenting complex or abstract information. Motion graphics can help present complex or abstract information in a way that is easier for students to understand, by using animation or attractive visuals; 2) clarify concepts or principles. Motion graphics can help clarify concepts or principles that are being taught by using animations that represent these concepts; 3) show processes or mechanisms. Motion graphics can be used to show processes or mechanisms that are difficult to understand using text or images alone; 4) present data or statistics. Motion graphics can help present data or statistics in a form that is more interesting and easily understood by students; and 5) increase the attractiveness of learning videos. Motion graphics can increase the attractiveness of learning videos by presenting learning materials in a more visual and attractive form for students [18].

For the selection of material in this study, the learning video uses introductory accounting courses. The introductory accounting course is a course given at the basic level and is the foundation of accounting science. Usually, this course is given in the first semester of college for students who choose accounting majors. Introductory accounting courses are important because they provide the basics of accounting knowledge needed to understand how a company records, processes, and presents its financial statements. By understanding the basics of accounting, a person will more easily understand the company's financial statements and make the right decisions in managing personal or company finances. As for the material determined in this study using cash and bank material. Cash and banks were chosen because they are an important source of funds because they can be used to finance the company's operational activities, such as paying employee salaries, buying raw materials, and paying short-term debts. In addition, cash and banks can also be used to anticipate sudden funding needs that may arise in company activities.

In making the scenario and script, a storyboard with 13 frames was produced. The storyboard was prepared using the standard format of the Education Television Media Development Center (BPMTV) of the Ministry of Education and Culture. This format was obtained from the experience of attending training on making learning videos organized by BPMTV. After the storyboard is compiled, a review is carried out to the material expert. The material expert here is a lecturer who has taught introductory accounting courses. This is done so that the material in the learning video made is valid.

When the storyboard has been completed, then the selection of tools and materials is carried out. The tools used are only laptops with sufficient memory in the video rendering process, audio and video editor applications that are licensed or open sources. The materials used are resources such as animation assets, images and sounds that are open sources or free license for education. The selection of tools and materials must be selective because the learning video created has no problems in copyright [19].

Then if the tools and materials are ready, the manufacturing process can continue. After making the learning video, it must be edited and edited according to the storyboard that has been made. After the learning video has been completed, the next step is to publish the learning video to YouTube. YouTube was chosen because it is a video sharing platform that allows users to upload, share and view videos. It is a popular choice for educational videos, as it offers a wide range of content on a variety of subjects, including science, history, math, language learning and more. Many educators and subject matter experts create educational videos and upload them to YouTube (Islam et al., 2021), making it a valuable resource for learners of all ages.

Once the learning videos have been published. The final process is to conduct an evaluation. The purpose of evaluating learning videos is to determine the effectiveness and efficiency of learning videos in improving student learning outcomes. It can be used to evaluate the quality of the video content, learning design, and student interaction with the video. It can also be used to evaluate whether the learning video meets students' learning needs and helps students to achieve their desired learning goals. The evaluation was conducted by filling out a questionnaire. The questionnaire was completed by 10 different students within 7 days. The questionnaire consists of 10 questions with regard to aspects of use (usefulness, satisfaction, and ease of use) [20].

TABLE 1
QUESTIONS FOR EVALUATION

No	Question
1	Is this video easy to understand and clear in delivering the material?
2	Does the video provide examples that are relevant and helpful in understanding the material?
3	Is the length of the video appropriate for the amount of material presented?
4	Is this video quality good and easy to enjoy?
5	Does the video provide interaction and activities that aid in learning?
6	Does the video provide feedback and evaluation to evaluate understanding of the material?
7	Does this video provide accessibility for users with special needs?
8	Does this video provide additional useful learning resources?
9	Can this video be used for future reference?
10	Would you recommend this video to your fellow users?

Each question had a score of 1 to 4 with criteria including 1) poor; 2) fair; 3) good; and 4) excellent. All results were recapitulated and averaged for each question per day. When the recap results are available, a curve visualization is created. Curve visualization is used to display data that changes dynamically in time or show the relationship between two variables. Curves can be used to present statistical data, economic data, flow data or other data that has values that change in time. Curves can also be used to show patterns or trends in the data.

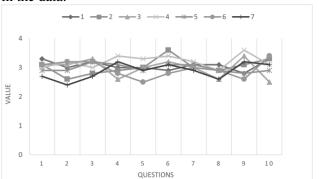


FIG. 1. UX CURVE OF ASSESSMENT RESULTS

IV. CONCLUSION

Learning videos are one form of digital technology utilization in education in Indonesia. Learning videos can help students understand material more easily and can be accessed anytime and anywhere, thus facilitating the teaching and learning process. User experience (UX) is a term used to describe how a user experiences a product or service, usually in the context of digital technology. User experience (UX) deals with the emotions, feelings, and thoughts that users experience

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