

Transforming Digital Learning in Vocational High School 21st Century

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Abstract. 21st century skills changes all aspects of the learning process in the classroom, resulting in a lesson in the classroom using presentation is not a solution in the current learning process, it is better to use a more effective instruction design that can create different learning styles and required learners. Using of video tutorials provide a good visualization of one of the learning materials, especially on practical learning materials. Video e-report is a learning media that records various and all student activities, not only psychomotor aspects but also record aspects of student attitudes when running activities. The implementation is able to give teachers and student flexibility, unlimited space and time, demands teachers skills and learners respond from various sides of the abundant information available. This scientific journal uses library research where research is done by using literature that is studied descriptively. Applying e-learning by using video tutorials and video e-reports can produce outputs that are more ready, quality, and can compete in the world of work. Because students are always invited to practice and trained in critical think. So when graduated from vocational school, they have been trained and highly competitive and positive in the context of 21st century education.

Keywords: 21st century skills, video tutorial, video e-report

I. INTRODUCTION

In The Partnership for 21st Century Skills formulated 21st century student outcomes and support system is important for graduates in facing all the challenges of employment in the future, explaining that combining knowledge and skills with the required support system standard, assessment, curriculum and instruction, professional development, and learning environments learners are more involved in the learning process and graduates are better equipped to thrive in the digital world as well as current global interconnection [15].

Learning with video tutorial and video e-report is a learning development in vocational high school that uses and utilizes tablets and smartphones as a learning media process within the period of two years. Learning using video tutorials, learners can see and learn more about the material presented by educators in accordance with the competence of learners freely and not fixated by time. Video tutorials can explain in detail a process, how to do in detail, how to practice, and so on to facilitate the teacher's task [12]. In addition, video tutorials can

improve learners 'learning out comes, improve self-efficacy, learners' performance and learning quality [8].

Learning using video tutorials and video e-report media can provide more experience because learning using such media can provide an excellent learning experience for learners [4], compared to using other media. This is because when using the video tutorial media there are senses that function together namely, the senses of vision and the sense of hearing. Before a practical learner, a video tutorial can also be used to learn before practicing. So the development of the use of video tutorials and e-report is required in the learning process in the current vocational high school. Based on the background of the research problem above, how is the development of innovative learning through video tutorial and video e-report in developing students who are superior and characterized in vocational high school?

II. RESEARCH METHODS

This scientific journal uses library research, aims to examine and see the transformation of the use of learning media in video tutorial and e-report in the 21st century and the influence on vocational high school graduates. Where research is conducted using literature that is studied descriptively. The literature in question is the internet, books, and journals. The data and theories or findings obtained through the Internet, books, and journals are then reviewed and studied.

III. DISCUSSION AND FINDING

The change in the 21st century is called the Era of Human Capital [3], in this era, the rapid development of science and technology, especially in the communication technology segment which has the impact towards free and very tight competition in all fields and aspects, especially work. Partnership for 21st Century Skills describes the changes that occur as follows: In an economy driven by innovation and knowledge, in marketplaces engaged in intense competition and constant renewal, in a society facing complex business, political, scientific, technological, health and environmental challenges, and in diverse workplaces and communities that are crucial to competitiveness [15].

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Education in the 21st century must always move and change in accordance with the progress of the times. These movements and changes are based on an educational paradigm that changes from the conventional model towards the direction of modern-day education [2]. The concepts and characteristics of 21st century education found and studied by several experts, leads to great demands and challenges for educators in the learning process. The teacher must balance the demands of the 21st century, like it or not, dislike, agree or disagree. Belong how to create learning media that convenient with the demands of the 21st century.

The terms of instructional media include visual aids, instructional materials, explanatory tools, hearing instrument, visual education, educational technology, and audio visual communication [1]. Research on humans can recall messages concluding that humans generally can still remember after more than three days with a writing of 10%, audio messages 10%, visual 30% and when added by practice, by 80% [6]. In addition, according to the research of Computer Technology Research (CTR) based on the observation of the human ability to receive and recall the information it receives, leads to the conclusion that: 1) From what is seen, humans can remember 20%; 2) From what has been seen, can remember 30%; 3) From what has been heard and seen, can remember 50%; 4) From being seen, heard and done, can remember 70% [11].

The video tutorial is an audio-visual that displays motion [17]. The application of tutorial videos is done during the classroom learning process on the core activities after Master conveys the theory. So that learners can know the correct practicum steps besides reading the module also see the video tutorial. Video tutorials can explain in detail a process, how to do in detail, how to practice, and so on to facilitate the teacher's task [12]. Video tutorials make learners can discuss what has been witnessed on the show and learners will get a direct picture of how things work in other words learners not only imagine it. So the use of video tutorial media can provide more experience, because learning using video tutorials can provide an excellent learning experience for learners [4].

In addition, there are two senses that play the same role when the media used are, the sense of sight and the sense of hearing, because humans can remember by 50% of the heard and seen [6], which implicates the learning outcomes of learners with such memorized learning. Implementation of tutorial videos can improve learning achievement [7]. In addition to improving learning outcomes, the use of video tutorials has a positive

effect on students' liveliness [9]. Learning outcomes increased with the use of video-based learning media tutorials student class X PM 1 vocational high school 3 Surakarta [10].

Video e-report is a learning media that records various and all student activities, not only psychomotor aspects but also record aspects of student attitudes when running activities. With video e-report students have the opportunity to make observations after it evaluates the performance of the practice it does, with feedback either individually or in groups either from peers or from teachers. Interpersonal competence can be improved by using e-report video media. Because of discussions with peers or groups, improve one's competence [16].

The application of e-report video media can provide the flexibility of teachers and students, as there is no space and time limitation. Implementing the use of e-report video media is able to adapt to the conditions and ability of the students, the acquisition of information becomes numerous, so the evaluation stage is done not only stop at the reply stage with the ability to memorize, but also by practicing directly recorded by a group of friends [11]. So that the right brain function is used more by the students, which includes doing the process of scientific thinking, put forward ideas, and predicted the event, which is to design the hypothesis and check its compatibility with the conclusion [18]. Teachers' skills and student responses are demanded because of the abundance of information available from all sides, as well as the frequent open-ended responses [11].

Video e-report has various benefits, among others: (1) student personality can be formed; (2) Used as a mirror of the students themselves; (3) describe the portfolio of learning processes through actual practice; (4) Used to facilitate the reporting of the results of vocational practice to parents of learners in a more real way; (5) Can be recorded by students when graduated from vocational high school; (6) Facilitate company recruitment by looking at the portfolio of prospective workers; (7) Accelerate to gain recognition of the Professional test certificate by BNSP (National Education Standards Agency) [11].

IV. CONCLUSION

Applying e-learning using video tutorial and video e-report can produce a better prepared, qualified and superior vocational high school output to face and compete in the world of work. Because students are always invited to practice, and honed to think critically. So when graduated from vocational school, they have been trained and highly competitive and positive in the context of 21st century education.

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