

Computer Assisted Instruction as a Media for Understanding Cultural Diversity

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Abstract: Computer Assisted Instruction as media for Understanding Cultural Diversity contains the cultural diversity concept in Indonesia, equipped with interesting video and animation that can easily understand by student. The purpose of the research is to produce Computer Assisted Instruction as a computer-based that meet the acceptability criteria. This research use Borg&Gall development model. The results of the qualitative assessment of 2 material and media expert and potential user the result were 90.15% from media experts, 89,6% from material experts and 89.17% from potential users all of the result have criteria “very good, no need to be revised”. Based the results of the quantitative assessment, it can be concluded that Computer Assisted Instruction and Media of Cultural Understanding as media for understanding cultural diversity for students meets the acceptability criteria.

Keywords: development; computer assisted instruction; cultural diversity



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Introduction

The easy access obtained by modern society, then the boundaries that used to exist are slowly being eroded, thus distance, language, culture are not an obstacle for modern humans to socialize (Cooke, 2014). Because of the ease of accommodation between countries, so many immigrants from various countries with different cultures can live and settle in another country for a certain period of time (Scharrer & Suerbaum, 2022) (Mata & Alves, 2018). The gathering of various people from regional and ethnic or racial backgrounds in one place makes many cultures fuse into one area, making it inevitable that many different cultures interact with each other (De Coninck & Matthijs, 2020) (Jover & Díaz-Parra, 2022).

Wherever there can be a meeting between different cultures, both from different regions, ethnicities and even between one person and another (Auspurg et al., 2019) (Ladson-Billings, 2021). One of the places where cultures meet is none other than schools, both among fellow students, fellow school staff, as well as between students and school staff (Morris et al., 2020) (Carothers et al., 2019). In adolescent development is the stage where a person begins to learn to socialize further with new people other than in the family and friends around the place of residence (Kegan, 2018).

Research conducted by (Srisawad & Ounvichit, 2016) states that adolescents at the school level have low awareness of cultural diversity of around 15% before being given treatment. Respect for one's own culture, self-understanding and protection of community culture, and concern for other cultures are 20%, 14%, and 13%. By looking at the data above, it can be seen that teenagers tend not to pay attention to other people's cultures and act according to their wishes (Noviana & Simanjuntak, 2022) (Törrönen et al., 2019) (Collins, 2020). Whereas in socializing with each other as much as possible not to hurt feelings (Anderson et al., 2022) (Kuppens & Ceulemans, 2019).

Another problem faced by schools that have cultural diversity in them is discrimination and unfair treatment. As revealed in research conducted by Byrd. Brown & Bigler (Byrd & Andrews, 2016) argue that discrimination refers to negative and unfair actions based on social identity such as race, gender, social economy, status or social orientation. Because 60% of adolescents in America report experiencing perceived discrimination based on two or more identities during adolescence. Identity here is social identity. In line with Byrd, (Downer et al., 2016) also reveals a description of a large sample of elementary school students in an analysis report of teachers from various ethnicities, concluding that the race or ethnicity of teachers and children is quite important for consideration of teachers' assessments of children's social behavior and adjustment. This shows that discrimination does not only occur between students but can also occur between students and teachers (Park et al., 2022) (Andersen & Guul, 2019).

SMPN 1 Tuban has many students from different backgrounds, it has its own challenges to be able to foster diversity in the school environment. To create a comfortable and conducive atmosphere for both students and school staff. After conducting interviews with Guidance and Counseling teachers at SMPN 1 Tuban, data were obtained, there are at least 20 children with Chinese ethnicity and 4 children with Arab ethnicity. Based on the interview, it was also obtained information that showed that there were indeed differences of opinion in the class but it was not a big problem that caused quarrels between students.

However, there are quite serious problems that occur because there are children who have different beliefs. The child does not adhere to the 6 religions that have been determined by the government. In his statement the student embraced one religion but the way of worship was very different. So that the school itself has difficulty providing religious services for these children. The teacher and students become curious about the child so that every time the child is called into the teacher's room, the child will suck the attention of the teacher and students.

As explained in the research by (Srisawad & Ounvichit, 2016) that students at the age of teenagers tend to have low concern about the diversity of the surrounding culture, this is of course something that needs to be overcome because from this ignorance problems can arise for students. In this case, guidance and counseling certainly takes action because if it is allowed to drag on, the student also does not feel comfortable taking education and new problems arise, even though they have attracted attention even from outside the school, the school and the guidance and counseling teachers are able to solve the problem.

The function in guidance and counseling that is closely related to cultural diversity is the function of understanding and prevention. (Prayitno & Amti, 2013) suggests that the client's understanding of the wider environment needs to be developed by guidance and counseling services. This includes an environment that has cultural diversity around students. According to Horner & McElhaney (Prayitno & Amti, 2013) in the world of mental health prevention is defined as an effort to influence in a positive and wise way the environment that can cause difficulties or losses before the difficulties or losses actually occur. In this case, the difficulties in question are problems related to cultural diversity such as discrimination and bullying (Rosander & Blomberg, 2022) (Ferfolja & Ullman, 2021).

In the practice of providing services, of course, media is needed as an intermediary for delivering material so that it is easier for students to grasp the material. (Seels & Richey, 1994) describe the purpose of Edgar Dale's cone of experience is to show the level of experience that a person gains in terms of his learning

resources. According to Edgar, 10% of understanding will come from reading. However, it will increase to 70% if students are involved in a simulation and write down the experience (Shana & Abulibdeh, 2020).

In Permendikbud number 111 of 2014 concerning guidelines for the implementation of guidance and counseling, it is stated that the management of information media in guidance and counseling is an activity of delivering information that is shown to open the insight of students/counselors that is given indirectly through print or electronic media (such as websites, books, brochures, leaflets, and guidance boards). One of the media that is very often used by teachers is computer-based media, apart from being more modern and practical without bringing textbooks and so on. Computer-based media can also be designed in a variety of ways. Can add video, audio, games and various other interactive media (Anyim, 2019) (Martin & Betrus, 2019).

Arsyad revealed that CAI (Computer Assisted Instruction) is basically learning with computer-based technology (Arsyad, 2014). In research conducted by (McKissick et al., 2013) revealed that Computer Assisted Instruction has been shown to be effective for students with or without disabilities (disabled), studies conducted show promising results that support the combination of CAI and direct instruction to teach map-reading on students with autism.

To overcome the problem of understanding cultural diversity that is lacking by students and also to prevent divisions between students now or later in the future, an easy media is needed. Therefore, based on the problems described above, the researcher will create a computer-based media or CAI (Computer Assisted Instruction) as a medium for students' understanding of cultural diversity.

Method

The type of research used is development research or called Research and Development (R&D). The development model used by the researcher is the model that has been developed by (Borg, W.R. & Gall, 1983) which has 10 stages of development. Considering the limited cost and time available, the research steps will be limited to stage 5. The steps are:

1. Research and information collecting; includes a literature review.
2. Planning; including determining the steps to be taken, the main objectives and product outlines.
3. Development of initial draft (develop preliminary from product); includes the preparation of instructional tools, supporting books and evaluation tools.
4. Initial field testing (preliminary field testing); data from interviews, observations and questionnaires were collected and analyzed.
5. Revision of test results (main product revision); product revisions are made based on the results of preliminary field tests.

The data collection instrument used in this development research is an assessment questionnaire used to determine the acceptability of the product being developed. The instrument compiled will show the product value both quantitatively and qualitatively. The product validation test was carried out by one guidance and counseling lecturer as a material expert, one guidance and counseling lecturer as a media expert, and one guidance and counseling teacher coordinator at SMPN 1 Tuban, as a validator for prospective users.

Results and Discussion

Based on the results of the analysis of quantitative validity test data obtained from the validation test of material and media experts as well as potential users of the MCU (Computer Assisted Instruction) Media (Media of Cultural Understanding) in accordance with acceptability criteria, namely, usability, feasibility, accuracy and propriety. Then the results of the data are interpreted according to the assessment of (Mustaji, 2005). The results of the media test validation showed that the CAI media got a percentage of 89.7% and the user guide book got a percentage of 90.6%. So that the overall average of the product acceptability criteria is 90.15%. When compared with the product eligibility criteria according to (Mustaji, 2005), it is very good, it does not need to be revised.

Next, test the validity of the material expert. The results of the material validity test show that the media and guidebooks meet the criteria for usefulness with a percentage of 96.4%, eligibility with a percentage of

80%, accuracy with a percentage of 82.1%, and appropriateness with a percentage of 100%, so that the overall average The acceptability of CAI media and user manuals is 89.6%, when compared to the product eligibility criteria according to (Mustaji, 2005) is very good, no need for revision.

Meanwhile, to test the validity of prospective users, in this case the guidance and counseling teachers at SMPN 1 Tuban. The results of the prospective user test show that the CAI media and user manuals meet the criteria for usefulness with a percentage of 91.67%, eligibility with a percentage of 87.5%, accuracy with a percentage of 87.5%, and propriety with a percentage of 90%. so that the overall average acceptability of CAI media and user manuals is 89.17%, when compared to the product eligibility criteria according to (Mustaji, 2005) is very good, does not need to be revised.

In addition to conducting quantitative tests, assessment instruments are also arranged so that expert validators can provide suggestions, comments and also criticism of CAI media. The suggestions and criticisms include, among others, that guidance and counseling do not need to be shortened in the manual, in addition to the instructions for use in the manual starting from inserting the CD into the disk room on the laptop or computer. In addition, as for adding to the limitation that the media only increases students' knowledge of cultural diversity. In addition to getting criticism and suggestions from the media, they also get appreciation from potential users that users appreciate the existence of this media because it can help strengthen the process of character building and students' mental revolution.

Discussion

This development research is based on phenomena that occur in the field as well as those that occur in the digital world (social media) (Susanto et al., 2021). Based on the results of interviews with guidance and counseling teachers in the field as well as with several staff in the field. The existence of a student who has a "unique" way of worship is something that attracts the attention of both the teaching staff, and also from other students (Linder et al., 2015). Even though nothing bad happened, students became less comfortable with various "attentions" from school residents. With this phenomenon, of course, it is necessary to take preventive measures if something similar happens in the future, students and school residents are wiser in responding to it. one way that can be done is to instill the understanding that everyone has differences that should be respected. A person's understanding ability will be transformed into other forms, one of which is a response or action when experiencing a certain situation. In this case, students are expected to be able to wisely respond to the diversity of cultures that exist along with the increase in knowledge gained (Miller, 2018).

Malone & Lepper explain that one of the benefits of media is to make the material or material presented will be much clearer in meaning so that it makes it easier for students to understand (Malone & Lepper, 2021). After considering what media can be used efficiently, interestingly and easily understood by students. With so many guidance and counseling media available, guidance and counseling teachers have many options. One of them is computer-based media, one of which is CAI (Computer Assisted Instruction) (Wahyuni, 2016) (Hendikawati et al., 2019). The advantages of this media can also be inserted video or audio in accordance with the desired theme. With the interludes of video and audio in the media, it is hoped that students will understand and retain information longer because they can visualize it (Davison, 2020).

Conclusion

Based on the results of development research activities carried out, it can be concluded that the CAI (Computer Assisted Instruction) MCU (Media of Cultural Understanding) media as a medium for understanding cultural diversity for students has met the acceptability criteria.

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