



Artificial Intelligence Use as Communication Media in Learning Activity for Senior High School

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Abstract. The influence of AI technology in teaching and learning at school has become an objective issue for identifying the utilization of AI as a medium of communication learning based project to the student in Senior High School. In this research, the data analysis used by quantitative and qualitative methodology for the sake of achievement the purpose of this. Quantitative data analyzed using paired samples t-test to know how far is learning based project can influence student attitude in activity learning. In addition, qualitative data was also analyzed with objective to observe how learning-based project affect the learning process students implemented in online atmosphere. There are 40 students of 11th grade at State Senior High School of 46 (SMAN 46) in the Cibiru District who participated in the study. The finding shown that they are satisfied in the use of AI at the learning activities.

Keywords: Artificial Intelligence, Learning Activity, Students, Communication Media

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INTRODUCTION

The teaching and learning process at the 21st century demands an active activity process for the students. Being an active learner is the new learning paradigm where the focus is in the role of student in implementing the material at class. These active learning should give the freedom from the learning process independent to the students learning activities. In the learning process of being independent learner, students expected can do the learning process with self-desire in order to create meaningful and appropriate learning with what the students need (Puteri, 2018). Umar (2013) conveyed that learning media is tools, methods and techniques used as intermediary communication between a teacher and inner disciple framework to make more effective communication and interaction between teachers and students in the educational process teaching at school. Learning is something conception from two dimensions activities (learning and teaching) that must be planned and actualized as well as directed towards achievement objective or mastery a number competencies and indicators as description results learn. Kerssen, et al (2016) learning is a process where the student can manage his/her skill in the education environment. The student need to possibly participated in the education as active learner in certain demand conditions to response the learning process situation at class.

Teacher role is not just giving knowledge, theory, concept and so forth. It should be more than that. The teacher needs to develop student potential by made them participating actively in the class. It proposed to create student participation to shape students critical thinking (mental and intellectual), emotional, social, moral, spiritual and cultural values. Learning is something necessary activities, orderly and systematic arrangement. Because learning related with what students' motivation to achieve so that in the learning process must started with a thorough planning process for implementation which can be done with effectively.

The clear lesson plan is given to the students regarding with activity analysis, estimation, judgment, and retrieval decision about expected goals controlled by the participants learners, activities learners, analyze and material principal application. Teachers can choose the lesson plan which give the students learn the material independently by choosing the setting on approaches, strategies, methods and techniques that will used. Apart from that analysis, estimation, judgment, and retrieval decisions are also related with necessary actions done for a purpose can achieved in accordance of student expectation. So that planning learning as description projected scenario a number desired target achieved, a number of activities and actions to be done in learning naturally must developed through stages in a manner systematic. Benefits of learning media according to Suryani (2014) is as followed by clarifying presentation message not to too verbalistic (knows the words, but no know meaning), overcome limitations space, time power senses, with using appropriate and varied learning media can overcome attitude passive student and got it raises same perception to something problem.

Learning active in the 21st century is also known own very close relationship with use technology. Through technology, learning can do with use lots source, not

only from book and teachers who have owned by students. This become the enormous potential that must be seen by internal teachers implement learning. Application technology in the learning process become things that have a very good impact for student. One technology the latest that has been proven give effect good to the educational process is artificial intelligence technology. According to Rich and Knight in Amrizal and Aini (2013) artificial intelligence is which technology can design computer to do something usually done by humans. Then if seen from facet education, artificial intelligence has expressed in a number of which studies is known give significant effect on the learning process students (Groff, 2017). In some where artificial intelligence is nothing new, however proper for tried its benefits. The application of intelligent tutors has also been implemented done in a number of activity education like implementation of IBM Watson. So that can conclude that study design gets up application learning using artificial intelligence is appropriate for carried out. Notice description above, the author encouraged to do the research by focusing to the designing of a learning media applications based on artificial intelligence that can help students at Senior High School in Bandung. Based on focus study, the research questions is how the use of artificial intelligence as a communication medium learning for Senior High School students?

RESEARCH METHOD

On this research, the author used the method of MDLC (Multimedia Development Life Cycle). This method can used in making like animation, film, and multimedia applications. There are 6 stages in multimedia development including stages of concept, design, material collecting, assembly, testing and distribution (Mustika, 2018). Data collection techniques and types in collecting data with technique interview, observation, study literature, and questionnaires. Interview done to the Indonesian language teacher at State Senior High School of 46 (*SMP Negeri 46*) in Bandung. The objective data to gain is to know the need in development of Indonesian language learning media. The author uses the interview method and observation to get information in a manner accurate about what the source said as an Indonesian language teacher really on the needed in develop learning media, based on the situation that occurred at State Senior High School of 46. In observation, the researcher observes in a manner directly the learning media used in activity Study teach to Indonesian language lessons student class VIII with an Indonesian language teacher at one of State Senior High School of 46. Literature study done moment before research where the author seeks, collect and study related to the study. The author uses two types of different questionnaires (closed questionnaire which filled in by students and teachers as well questionnaire open and closed for the expert validation. The validation of working design for validating design appearance from Clopedia AI app, expert material with purpose order description animal endemic AI Clopedia app in accordance with material description of Indonesian class VIII and expert language for the Clopedia AI application own vocabulary, delivery description oral animal good and true endemic in Indonesian. In terms of data type, qualitative data is used in study This is the data obtained from results interview with the supervising teacher Indonesian, as well as suggestions and input from students. Interview the discuss about

appearance and features of the Clopedia AI application. For suggestions as well the intended input is results implementation AI Clopedia app to students and students. Quantitative data obtained from results given questionnaire to teachers and students at one of the State Senior High School of 46.

RESULT

There are several Artificial Intelligence (AI) applications in the education sector. Application of this AI No free from development technology as well as demanding conditions of the times innovation in a manner sustainable in find solution problem. Internet Virtual Mentors in nature moment this is universally introduced as a medium for transferring information and insight as well as knowledge on various aspect. Virtual Mentors (VM) being one paired application with the lab system which is more functioned as integrated multimedia environment that has been implementing eLearning. In one article Journal System Information Computers, it is mentioned that the VM environment is more effective than learning traditional conventional (Zhang, 2004). Interaction learning is as the same as Learning by Asking (LBA). With using this LBA there will be two components main (Video Streaming Server and Web Server). Second component will be the process of original video and generate one questions later to be one of the data questions that will be later can called returned and developed in accordance with intensity emergence question as well as processed video variations. Having a virtual mentor like LBA makes it easy interaction with effectiveness in aspects perspective management as well as financing.

However, LBA does not will directed of there is any support from the Module in Learning (Learning Assistant Module). LBA's potential as a Virtual Mentor is sparking learning multimedia based. Substitute voice become helper absorption information without must read. Cognitive different human like absorption information from information voice will different with information trigger reading, like Voice Assistant. In a proceeding, Voice Assistant explained as device of IoT specific in giving understanding perspective teacher. One journal article report perception service tutor in integration Voice Assistant technology will show how condition class in the future coming (Jean-Charles, 2018).

Currently, Voice Assistant already growing in variety device electronic desktop based, Android or iOS. Deep AI development example of Voice Assistant. This give equality for bear disability in matter demand knowledge so that information not only in a manner of physique but also can be disability person. Smart machine things included to in one of the IoT become an active model in life every day. In an article of Journal Future Computers and Communications, there is one application called Nabaztag, music App via Wi-Fi (Madakam, 2015). This application gives information like news weather and the latest news (RSS Feeds), alarm clock and stock market report. In the field of education, applications like this functioned as smart content that presents newest content material newest, materials reading from new books published as well as seeker information in accordance needs learning covered. In a development quality Smart Contents standards in the field of Education, an article discuss comparison learning type traditional, e-

learning, m-learning, u-learning, and smart learning (Jun-Hong, 2014). The comparison of reviewed based on intelligent personalized study, activity cooperative, active participant, activity share, application of social networking, application of convergent educational media, and non-linear studies. While the smart learning will realize self-directed character, motivation, adaptive, resource free, and embedded technology. The existence of smart content as a teaching and learning strategy become in accordance with smart quality standards. Development Artificial Intelligence (AI) technology in the field education divert learning conventional in class. There are already applications of AI in the education sector be marked with the presence of blended learning reduces risk identified hazards as method latest in the operation of MOOC platforms, the existence of blended learning also proves theory of AI and the Marxian Alienation in impact of AI as innovation in learning (Ikedinachi, 2019). However, deep AI control the smart classroom application is external control without there is blended learning. Blended learning with facilitator will straighten error understanding that deep AI interprets processing information so that knowledge the knowledge imparted standard quality.

In the class of State Senior High School of 46, when one application of AI based translate Indonesian, then facilitator (teacher) can correct so the knowledge conveyed characteristic whole and correct. There is several non-formal learning that has also been apply deep AI the process. Example courses already apply AI technology like courses on Udemy, Google AI, Alison, Khan Academy, Duolingo and more. This is also accompanied with communication facilitator online and offline with materials that have been grouped in accordance with an understanding roadmap prepared. Progress technology with the existence of AI brings practicality in learning evaluation (Computer Assistance Assessment/CAA) (Rodrigues-Araujo, 2012). This AI application moment used as detector word for word combinations, as well drafting sentence with good and true scoring board.

DISCUSSION

Artificial intelligence (AI) is carried out by machines that demonstrate aspect intelligence humans, increasingly lots used in service and time. This is source main innovation in learning activities at class (Groff, 2017). The development has made some people stated that this moment in revolution industry fourth where technology blurring the boundaries between field physical, digital, and biological also in education (Hung & Huang 2012). There are two streams study related major with AI advances. Literature services and technology tend focus on the sides positive use AI technology, meanwhile literature economy tend focuses on the effects of AI on jobs. Literature service tend focuses on applications technology intelligent (Heris, 2014). Artificial Intelligence in marketing field is method utilization of customer data for anticipate customer and improve journey customer. Artificial Intelligence offers method to bridge the gap between data science and execution with sifting through and analyzing what used to be huge amounts of corrupted data in a process that is not can resolved for the teacher in State Senior High School of 46. Using the medium of AI at class, the teacher helps repair error in making sentence in accordance with objective writing of the students.

AI makes it possible for students get service worthy personal assistant. Data collection carried out using AI recapitulated based on data from activity learned that already done by students as user. Thus, AI makes it possible exists solution alternative appropriate learning for the students.

The concept stage is determined based on the data collected through results interviews that have been done as need in make Clopedia's Artificial Intelligence (AI) application. In addition to the interviews with the teachers, the author observation using field note, the class used Clopedia AI app. The application has the design stage on programming, display between inter face, and procedure coding. In the material collecting stage, the author gather material to be used in accordance need for making Clopedia AI app. Collected materials can be in the form of audio, images, and text. As for the materials that will be collected is endemic photo animal to be used for conducting AI training with utilizing tools created by Google (Teachable Machine), description endemic animal in Indonesian and English using the sound to be used for explaining the description of animal endemic. The author assembly stage starts for combining and creating Clopedia AI App. Manufacturing process the covers collection picture endemic animal, AI training for teacher and student, manufacture text for endemic animal description, and recording audio description to be saved all data in the Google Firebase database, as well as application development with using Flutter. Clopedia AI App will pass testing stage for knowing that the applications have been made successfully. If it happens errored, the improvements to the application order can be revised again. Testing AI Clopedia application using black box testing is done to investigate the error in the application like running of the Application function, the error in interface designing, the error in initiation or termination performance. Therefore, the use of AI Clopedia App technology in the class is beneficial both from the teacher and student.

CONCLUSION

The presence of AI technology is a breakthrough in the field of education for makes it easier learning and can cultivate independence. The teacher is not dominating the class, so the role of the teacher can be helped by the AI technology in the class. Teacher can shift to the level of giving enlightenment with substantial keywords and the most important thing is to return the essence of teaching that is necessary for an active student to create their critical thinking.

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