Puber as Artificial Intelligence for Education Policy in Bandung City

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Abstract. The City Government of Bandung currently still lacks competent teachers. The distribution of teachers who have uneven competence in every junior high school (SMP). To accommodate the problem of the distribution of Competent Teachers, the Bandung City Education Office made one innovation, which is Puber (Learning Center). Puber can facilitate teacher rotation through technology. This study aims to dig deeper into the application of Puber in the city of Bandung. Researchers used a qualitative method to dig up information related to the application of Puber in every junior high school in the city of Bandung. The results of this study indicate that the Puber program makes Teachers at Favorit School provide learning to ordinary Schools. This research concludes that the Puber Program must continue to be improved and always get control from the Education Office and the School.

Keywords: Puber, Public Service, Technology, Teacher, Department of Education

1. Introduction

Educational technology is often thought to lead primarily to electronic problems or technical equipment, even though education technology has a very wide sense, particularly in terms of its growth amid rapid developments in science and technology as well as in the field of community culture [1]. Advances in science and technology have a large effect on human life, and research is required to make optimal use of and reduce the negative effects that still exist [2]. Educational Technology may only be developed and utilized properly when there is energy to handle it. They are skilled workers, proficient, and/or experts in carrying out activities [3].

Educational services in the context of technological innovation. All links to the internet can be done safely and effectively [4]. Internet facilities can be used to consult on learning issues, tasks, tests, remediation of students, and to develop collaborative service activities between teachers and students, and between students, to enrich teaching [5]. E-learning is facilitated by technical tools such as telephone, audio, videotape, satellite, or computer transmission.

E-Education allows the learning of information can be accessed. Teachers and students should always access various data flow information easily, responsibly and as planned [6]. Bandung City, which is the capital city of West Java Province, has implemented the Smart City concept in all fields. The Bandung City Education Office is currently making a digital innovation named Puber which is the result of the creativity of teachers, supervisors, students, and other education personnel as well as other learning resources that are useful for teaching development. Puber results from the innovative development of the Community Teacher Working Group (KKG) and the Subject Teacher Conference (MGMP), the content displayed is more specific, which is subject-based teaching materials. Using the Puber program, both schools and teachers will be able to collaborate on shared ideas, organize and collaborate on innovation to enhance the quality of education. Various learning materials that will become learning materials for students and other teachers, can be cloned in every school based on information communication technology [7].
In Figures 1 and 2, there are 15 (fifteen) schools out of a total of 190 (one hundred and ninety) private SMP schools. Teachers and schools can personalize the educational experience of their students by aligning individual learning content with performance standards and specific needs [8].

The purpose of this research is to know whether or not the Bandung City Government is implementing this innovative Puber program because there is even distribution between favorite schools and schools that are not favorable. The use of blended learning and its positive impact on student activity and the development of innovation and entrepreneurial soft skills [9].
2. Methodology

This research stage begins with observations at the junior high school level in the city of Bandung, both public junior high schools (SMPN) and private junior high schools, by combining secondary data through social media, electronic media, and related journals. Researchers used qualitative techniques and also used data collection techniques based on online media content analysis and interpretation of texts with existing situations and phenomena. The analysis used in this research is a descriptive analysis using the NVivo 12 Plus software [10].

Then the data is processed and analyzed using the NVivo program to produce a composition of answers according to research objectives. In the data collection process, the authors use the source of the results of websites, journals, relevant articles (which have a direct relationship with research), and reputable (have a reputation and experience) in providing news based on the results of informant interviews regarding the Puber Program Innovation initiated by the Government Education Office Bandung. This is obtained through content analysis through online media.

3. Educational Technology

Effect of AI in education, situation educations of the present manifestation of AI in education (clever gratified, smart coaching schemes, cybernetic initiators and knowledge atmospheres, etc) through a perceptiveness concerning refining education and life consequences for all [11]. Artificial intelligence (AI) exists today augmenting outfits and appliances recycled time by time in municipalities and campuses everywhere in the world [12]. Educational technology is a complex and integrated process for analyzing and solving human learning or educational problems [13]. There is no need to imply the use of machines, but more use of the elements of thinking and using scientific knowledge [14]. Educational technology is all efforts to solve educational problems [15].

It can be explained that: 1) Educational technology is more than hardware, it consists of design and environment that engages students, 2) Technology can also consist of any technique or method that can be trusted to engage learning; Cognitive learning strategies and critical thinking skills, 3) Learning technology can be in any environment that involves students learning actively, constructively, authentically and cooperatively and with a purpose [3].

Educational technology is a complex blend of human and machine organizations, ideas, procedures, and management of the education system [16]. Educational technology expands the fields of theoretical development, research, and implementation in the field of education [17]. If applied in the world of education, technology is a complex, integrated process to analyze problems to find solutions, implement, manage and control, and evaluate problem-solving to educational problems [18]. Thus educational technology has a significant role in the world of education both in terms of implementation and development [19].

4. Results & Discussions

The Bandung City Education Office launched the Educational Innovation PUBER (Learning Resource Center) in December 2018. These four educational innovations are an effort to continue to learn from the Bandung City Education Office in aligning the vision and mission of the City of Bandung Becoming More Champion. This information and communication technology (ICT) based innovation can be accessed on the official website of the Bandung City Education Office http://disdik.bandung.go.id.
Puber is an effort to overcome the difficulty of rotating teachers. We're facilitating learning materials there. If, in reality, (the teacher) is nice, it's easy to convey, children will understand [7]. This program is an innovative development of the Teacher Working Group and Subject Teacher Conference. But how the approach used to convey the learning must be interesting, the contents should not only be lectures. Examples of learning can be through experiments, making projects, or other creative ways [20].

The application of technology in the learning process is the scope of educational technology. In line with the development of technological innovation, computer learning can be accessed on the internet. Learning like this is called web-based learning or commonly known as e-learning. One of the e-learning media, like blogs, can be utilized optimally as a learning medium so that students can develop themselves independently and demand creativity and the dynamics of science [16].

The application of Puber in Bandung has a prominent characteristic, like by using tools or media. Rather its media can be prepared by an instructional development team consisting of experts in the relevant field (subject matter experts, instructional systems experts, media experts, and so on). Puber is considered to have the potential to accelerate the learning stage (rate of learning) and can help teachers use time properly and efficiently, thus supporting teachers to be able to foster and develop children's creativity. The presentation of information that can penetrate geographic boundaries allows the presentation of educational data more broadly.

According to the head of the Workgroup team, Puber provided by the Bandung City Education Office for safe online learning, How to access Puber is very clearly integrated with the SaKOJA system (Sakola Champion), saves learning result teaching materials [3]. SaKOJA is a forum for teaching media, teaching and learning systems, and online learning evaluations complete with a school's KTSP (Education Unit Level Curriculum) profile through e-KTSP.

The results showed from crosstab analysis from online media such as pikiranrakyat.com, tribunjabar.id, inilahkoran.com, ayobandung.com, jabarexpress.com show that the Puber program was very useful and made learning easier, especially during the Covid-19 period. Teachers at favorite public junior high schools can transfer forms of learning to non-favorite state junior high schools (Fig. 2) in the form of instructional videos that are easy for teachers and students to understand. There is a solid relationship between the center and the region that allows the use of mobile strategies in education and academic performance [21]. During a pandemic like this, the digital class can support the achievements of the Industrial revolution 4.0 (Digital Technology),
where the role of the Government in preparing human resources and preparing funds is needed by the school.

The results from cluster analysis from Pikiranrakyat.com, tribunjabar.id, inilahkoran.com, ayobandung.com, jabarexpress.com showed that this Puber program adjusted the content of the learning content with the curriculum applied by the Bandung City Education Office. The content of the instructional video content that is displayed contains attractive and interesting ways so that students do not get bored watching and doing learning. Concept map and project map analysis showed that Puber Program has an impact on the teaching and learning process. In general, it can make the education system effective as a whole. In more detail, the impact that can occur on the teaching and learning process is increasing education productivity by accelerating the learning process, helping teachers to use their time more effectively, reducing the burden on teachers in presenting information, so that teachers foster more and develop student excitement.

Figure 4. Grup Query

Construct identify and linked showed that all learning methods that do not support student creativity need to be changed. Students are expected to be able to be independent by using the various available facilities and learning resources, increasingly sophisticated along with advances in educational science and technology. With Puber, it strengthens teaching by increasing human or student insight with various media, presenting information, or more concretely [44]. Enables a broader presentation of education, especially the presence of mass media through sharing, staff, or rare events.

5. Conclusion

Puber, which is currently integrated with the SaKOJA system, is a system that accommodates various learning management applications and student learning evaluations. This system regulates and manages online teacher learning administration, teaching schedules, setting Minimum Completion Criteria (KKM), digital teaching content banks, and digital question banks. This digitization can be used by all teachers and all students in Bandung easily and for free. Both when outside and during teaching and learning activities in the classroom, or in managing an online exam (UDJ), as well as managing test result data.

6. References

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