Empowering high school students with online game literacy

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ABSTRACT

The COVID-19 pandemic has led to a surge in electronic devices and smartphones in education, causing students to spend more time on screens. The mobile game market in Indonesia has grown significantly, with 3.45 billion downloads in 2022. Online games can be addictive and psychologically impactful, making it crucial to instill literacy and parental supervision to prevent addiction. In Bengkalis, Indonesia, a community service activity was conducted to foster online game literacy among students, teachers, and parents. The activities involved interactive methods and forum group discussions, using LCD media and PowerPoint. The study found that children often play games for entertainment without realizing the negative effects of excessive use, leading to smartphone addiction. Factors influencing this increase include pandemic conditions, lack of self-control, and a lack of understanding of the negative impact of excessive gadget use. The school's strict rules on bringing gadgets to school have been successful in promoting online game literacy. The program aimed to increase student knowledge and critical thinking in interacting with smartphones, fostering understanding between students and parents.

Pemberdayaan siswa SMA melalui literasi game online. *Pandemi COVID-19 telah menyebabkan lonjakan penggunaan perangkat elektronik dan ponsel pintar di dunia pendidikan, sehingga menyebabkan siswa menghabiskan lebih banyak waktu di depan layar. Pasar game seluler di Indonesia telah tumbuh secara signifikan, dengan 3,45 miliar unduhan pada tahun 2022. Game online dapat membuat ketagihan dan berdampak secara psikologis, sehingga penting untuk menanamkan literasi dan pengawasan orang tua untuk mencegah kecanduan. Di Bengkalis, Indonesia, kegiatan pengabdian masyarakat dilakukan untuk menumbuhkan literasi game online di kalangan siswa, guru, dan orang tua. Kegiatan yang dilakukan menggunakan metode interaktif dan forum diskusi kelompok, dengan menggunakan media LCD dan Power Point. Studi tersebut menemukan bahwa anak-anak sering bermain game untuk hiburan tanpa menyadari dampak negatif dari penggunaan berlebihan sehingga berujung pada kecanduan ponsel pintar. Faktor yang mempengaruhi peningkatan tersebut antara lain kondisi pandemi, kurangnya pengendalian diri, dan kurangnya pemahaman mengenai dampak negatif penggunaan gadget berlebihan. Aturan ketat sekolah dalam membawa gadget ke sekolah berhasil mendorong literasi game online. Program tersebut bertujuan untuk meningkatkan pengetahuan dan berpikir kritis siswa dalam berinteraksi dengan smartphone, menumbuhkan pemahaman antara siswa dan orang tua.*

INTRODUCTION

The pandemic left people dependent on software such as computers and gadgets, especially children who were of school age at the time. Based on regulation of the Minister of Education and Culture No. 4 of 2020, online learning is a solution for management during the coronavirus disease (COVID-19) emergency. As a result, the use of devices is very important in online learning because students tend to interact with screen devices in doing assignments and discussions (Syarifudin, 2020;Dampati et al., 2020) This phenomenon bequeaths the intimacy of student behavior with computers or

gadgets and passive exposure to screens for a long time, either through smartphones, tablets, televisions, video games, or computers (Kaye et al., 2020) The fact is that the average child uses gadgets or relies on gadgets excessively in various daily activities.

The difficulty of parents and educators to take precautions for children, ranging from limiting use to not bringing gadgets into the scope of the education area, is one challenge. Based on the Internet Service Providers Association (APJII) report Internet Penetration and Behavior Survey 2023, most online game users use long durations when playing (Muhammad, 2023)

Other data also emphasizes the rise of the mobile game market in Indonesia. Throughout 2022, *Indonesian gamers* downloaded a total of 3.45 billion mobile games. The report from data.ai released the *State of Mobile 2023 Gaming Report*. Based on the data they collected, Indonesia recorded 3.45 billion mobile game downloads in 2022, up around 320 million from the previous year. Specifically for the Android game market, Indonesia ranks third, behind Brazil and India (Kaonang, 2023). From the understanding of online games above, it increasingly emphasizes that playing online games only needs two things, namely computer devices which in this case can be replaced with smartphones and internet quotas. Playing online games can be a refreshing activity for teenagers on the sidelines of teaching and learning activities at school, where teenagers or students today prefer to play online games rather than exercising or interacting like children in the past (Efendi et al., 2021).They choose between tight times and can do refreshing activities quickly, easily, and cheaply. The situation also does not depend on the participation of friends in large numbers.

Online games can be addictive for their users and have a psychological impact, especially on children. To avoid negative influences, it is necessary to instill literacy and parental supervision by paying attention to children to keep using online games. In a positive context, this activity is just a time filling and not a priority in life. Playing online games can be a refreshing activity for teenagers on the sidelines of teaching and learning activities at school. The increase in the number of online game users cannot be separated from the increasing development of technology. The existence of social media which is a facilitator in helping the dissemination of online games also participates.

The influence of Internet development is growing rapidly in the city of Bengkalis, especially the use of electronic devices*, gadgets,* or *smartphones. gadgets* in this modern era, every circle of society, both young and old, has gadgets. The need for gadgets *can be realized that* gadgets have benefits for self-productivity to make it easier to do anything in this modern era. However, *gadgets* also leave a negative impact, one of which is addiction to playing *online games* among children, so the project team must instill literacy. In a simple sense, literacy is the ability to read and write. But with the times, literacy seems to be more than just reading and writing. Literacy is also defined as the ability to speak, count, solve problems found in everyday life, understand, and use the potential of self-ability.

The service team with the Bengkalis District Education Office and Bantan Senior High School 2 conducted counseling to assist parents and teachers in dealing with students, so the team planned digital literacy counseling activities on the impact of *online games* among adolescents in the Bengkalis district. The selection of high school students is because they are classified as early adolescents (11-14 years) and middle adolescents (15-17 years). Adolescence is the transitional period between childhood and adulthood, consisting of three phases: early adolescence, middle adolescence, and late adolescence (18-20 years). This period has reached sexual and physical maturity, the development of reasoning, and making decisions regarding education and occupation (Wilson, 2023; Ernawati,2021)

Bengkalis is one of the regencies in Riau province and directly borders neighboring Malaysia and Singapore. With a population in 2020 of 593,397 people. Districts have access to advanced and adequate facilities and infrastructure. Educational facilities ranging from low to high levels are spread in various sub-districts in Bengkalis Regency, one of which is in the Bantan sub-district which is the location of this service already has 13 kindergartens, 32 elementary schools, 8 junior high schools, and 3 high schools (ppk-kp3k.kkp.go.id/). Therefore, in this case, the service team chose one level of education, namely Senior High School, at SMA Negeri2 Bantan, Bengkalis Regency. SMA N 2 Bantan Bengkalis is one of the 3 high schools in Bantan sub-district. The SMA Negeri2 Bantan has an A accreditation and uses the 2013 curriculum to guide the learning process. The school provides various forms of infrastructure for its students, such as classrooms, laboratory rooms, and library rooms. In addition, it supports the learning process by providing easy access for students, namely the internet network and Telkomsel Flash, which can be used by every student in their school (Sekolah, 2013).This article describes how connecting the empowerment of high school students through online gaming literacy with the Sustainable Development Goals (SDGs) number 4 (United Nation, n.d.) is an interesting and important step in modern education.

METHOD

In this community service activity, SMA N 2 Bantan Bengkalis as a partner presented 36 students and 10 teachers and parents. This counseling seeks to foster online game literacy among participants. Interactive methods implemented through forum group discussions (FGD) related to the application of rules, awareness, and impact of playing online games. Counseling activities are carried out in three stages, including; First, the lecture method was conducted about the introduction of the digital area and the benefits of digital literacy. In this case, the participants were introduced to the world of online games and e-sports. Participants have explained the negative impact of playing online games. In the

second stage, the dialogue method was used to explore further the curiosity of service participants in terms of digital literacy and online games. This session was used to listen and share experiences from the presentation of service participants. The team also shared insights and solutions that will be faced in the future as a result of using online activities. By integrating sports literacy into high school curricula and aligning it with SDG principles, schools can create a supportive, inclusive, and innovative learning environment.

RESULTS AND DISCUSSION

Students were very enthusiastic during the socialization activities. In counseling activities, material was distributed through lecture methods that use LCD media and PowerPoint. This method can be used for large groups, and the thing to note is that the delivery is interesting and not boring. Mastery of attitude, loud and clear voice, gaze directed to participants, standing position, and use of audio-visual media are all elements that must be known by the executor or presenter.

Students may only bring gadgets with the teacher's permission and are indeed used in the Lesson*." Control from the school in the form of rules not to bring gadgets to school. Because children don't care. We can call this anti-social attitude autistic,"* conveyed by the deputy head of curriculum, Sarini S.Pd. Similar opinions were also found in several studies, where playing online games can isolate themselves which causes a lack of direct social interaction and has an impact on eye health, (Novrialdy, 2019)lack of ability to control time and life (Fauzi, 2023).

For parents, the use of gadgets is very troubling. This has created a gap between them because the important role and fear of losing gadgets have shifted their position as parents and families. A crisis of courtesy or caring they feel they need to apply harsh measures by scolding or using threats against children. For parents, such control means they must be strict with the child, although they also admit that it is not entirely effective. Their anger and disappointment arise when they find out that children only use cell phones to play games.

Based on observations, the rules applied by SMA N 2 Batan can be said to be successful not only because students obey but the unstable signal in the area provides support for students not to bring gadgets to school. It is known that online games are very dependent on a stable network. This condition does not exclude students who are also gamers and even winners in sub-district-level competitions.

> *I play FF (Free Fire), if I play 2-4 hours a day, sometimes more. The advantage can be many friends from everywhere, abroad too. So you can learn to learn English too. Create an exercise. He has also participated in the 2nd place at the sub-district level. Even then I was happy. (HK, 16 years old)*

Online games tend to use English, and interaction in the form of text and voice is needed considering that players can be met from various countries. So playing online games will train English skills and increase vocabulary. This coordination is very important to build team cohesiveness.

> *I usually play ML (Mobile Legend) and FF. as we know.. Also actually like to play without remembering the time. But what else, Look for entertainment, level up but lose the quota quickly runs out. hahaha. Get angry (parents) too. (NR, 17 years old)*

ML and FF games are types of *wargaming,* namely innovative and newly designed interactive war games that bring together cyber practitioners, policy writers, and decision-makers to gain experience and understanding through interactive *gameplay* in a virtual environment (Long, 2020; Nugroho, 2021; Larreina-Morales, 2023). In playing, the player must practice to be able to concentrate fully by coordinating his hands, eyes, and mind. The ability to read the opponent's movements is accompanied by strategy. People who often play online games and tend to be addicted will be considered individualist and egocentric. However, the game's structural features have a significant role in the potential development of compulsive gambling (Auer & Griffiths, 2023). From a sociological perspective, these conditions can endanger the social life of individuals where they may become closed and distant from the surrounding environment even negligent by forgetting the activities they should do(Safitri, 2020). One parent said in FGD:

> *So sad. Sometimes I just keep him quiet. Eat the stuff (gadgets) it's brought. Sometimes I don't know... It's sad to see that we've been ignored. (IM, 39 years old)*

The statement had the students blushing and consciously admitting what the parents and teachers said. Parents also end up often giving sanctions and threats so that children stop playing. Effective sanctions according to these parents are in the form of not being given pocket money so that they do not have a quota for using play. According to Syarief (2022), it is a form of guidance and supervision of parents.

Humans were created as perfect beings, that perfection by the presence of reason. Reason allows man to consider and distinguish between good and bad. The existence of technology should only be supported in facilitating human work,

not the other way around, making humans slaves of technology. Based on the findings above, playing online games does not always have a negative impact but can also present a positive side. Like Grose (2022), online games have negative and positive effects on social interactions. The negative impact is that they will be isolated from the real world due to spending too much time playing online games. Negative effects of playing online games. Currently, games are also e-sports, even competitions are also carried out starting from the level. The author found this because one of the students shared a story from his experience winning the tournament. This story was heard by all participants including teachers and guardians so that they also understood the positive impact of playing games. The positive effect is that they can distantly interact with others because they cannot meet in person. Therefore, students need to avoid online gaming addiction by limiting and keeping an eye on good patterns and making online gaming a recreational activity.

The results of the FGD also show the identification of gaps in students' knowledge and can implement targeted interventions, such as the planting carried out in this program, both extension workers, educators, parents, and students effectively gain understanding. The program's focus is aimed at increasing student knowledge and being able to think critically when interacting with smartphones.

Instilling understanding between students, and parents has shown results where openness results in one. The effort can also erode mutual suspicion or bad thinking about the interactions that students do. Both parties must also be able to instill control for themselves and others. Creatively, they can create self-identity digestion from the characters used according to the desired character (Askamal, 2021). Because playing can enhance cognitive stimulation, virtual socialization opportunities, and mental health by reducing anxiety and stress (Barr,2022; Brugger,2021; Vargas-Iglesias, 2020). These results are expected to confirm interventions in closing the suspicion gap and nurturing scientific intelligence among participating students. In addition, providing input and assistance so that *online games* and activities are carried out can lead to a positive direction, namely, creating e-sport athletes.

Figure 1. Documentation after FGD

Games are entertainment, and children or teenagers in general play games to entertain themselves without realizing the negative effects if not used proportionately. Self-control can increase self-control in controlling the use of smartphones because the impact that low self-control can have on using smartphones will result in smartphone addiction (Larasati, 2021b).In school adolescents, low self-control will result in smartphone addiction.

Smartphone addiction is a behavior of attraction or addiction to smartphones that may become a social problem such as withdrawal and difficulty in the performance of daily activities or as a disorder of implies control of oneself (Ytre-Arne, 2019; Kwon et al., 2013). For this reason, parents and teachers need to pay attention to adolescents and maintain communication with others, especially parents, Adolescent behavior control also needs to be carried out by teachers while at school (Biscop, 2019: Larasati, 2021)

Self-control difficulties in adolescents were also conveyed by Kusumayanthi (2021) and Fadhilah (2022) that adolescents find it difficult to control the use of gadgets, adolescents experience symptoms of gadget addiction and cause individual attitudes or indifference to the surrounding environment. The picture of the digital behavior of young people shows a lack of control of digital behavior such as spending a lot of time playing with gadgets, lack of activities, and wasteful in buying internet quota to support applications in gadgets. Factors that influence the increase in gadget use are pandemic conditions that affect how to socialize, lack of self-control and learning styles during the pandemic and lack of understanding of the negative impact of excessive gadget use.

This information was obtained from interviews with several teenagers at SMAN 2 Batan such as the intensity of time in the use of gadgets increased the time, the purchase of internet quota that increased so that parents also complained and many teenagers who gathered in places that provide wifi to play games. In addition, adolescents are quite aware of the adverse effects of excessive use of gadgets such as lack of direct socialization, speaking with bad sentences, lack of manners in behavior, not focusing on learning, eye pain, headaches, and lack of enthusiasm in doing activities.

By strengthening collaboration between universities, and schools, and providing relevant counseling and sufficient resources, can improve students' abilities. As teenagers in general, students can prepare themselves to overcome challenges in the academic and professional world in the future. Experience and competence in conducting research play an important role for high school students where students can develop the critical skills necessary to evaluate and analyze actions in depth. In addition, experience helps students develop effective communication skills as it allows students to share their knowledge and ideas with others effectively. On the other hand, students are also expected to be able to be smarter in managing time, being responsible, maintaining cultural civility, and respecting others, especially parents. However, it does not close the possibility that this high school will also start to use game-based learning innovations as strategies and tools to develop sustainable education in the classroom (Pineda-Martínez, 2023). They increasingly influenced by the digital age, looking for a more exciting and interactive learning experience (Anastasiadis et al., 2018).

The integration of e-sports literacy with the Sustainable Development Goals (SDGs) is a crucial aspect of modern education. It can enhance students' quality of education by promoting critical, analytical, and creative learning. It also encourages inclusive and holistic education for all students, fostering their interest in technology and sports. It also promotes the development of the information and communication technology sector, fostering innovation and infrastructure development, reducing reliance on technology, and fostering collaboration between sports industry (Mattila & Pang, 2023) and other stakeholders.

CONCLUSION

This community service activity successfully achieved its goals and provided skills training to optimize online game literacy awareness wisely. Awareness of the good benefits and wise understanding of playing online games to parents and teachers. In addition, the team also benefited from instilling self-control at home, and at school and participants' self-control about the good and bad of playing online games wisely.

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