

**How to Cite:**

Rahayu, I. S., Karana, I. ., Hardiansyah, M. A., Dewi, D. H., & Elihami, E. (2021). The relationship of online game addiction with learning motivation in school age children on COVID-19 pandemic. *Linguistics and Culture Review*, 5(1), 384-396.  
<https://doi.org/10.21744/lingcure.v5n1.1650>

# **The Relationship of Online Game Addiction with Learning Motivation in School Age Children on COVID-19 Pandemic**

**Inong Sri Rahayu**

STIKes Muhammadiyah Lhokseumawe, Indonesia

**Indra Karana**

STIKes Dharma Husada Bandung, Indonesia

**Muhammad Agus Hardiansyah**

Universitas Sultan Ageng Tirtayasa, Indonesia

**Dyah Handayani Dewi**

Universitas Nasional Jakarta, Indonesia

**Elihami**

Muhammadiyah University of Enrekang, Indonesia

**Abstract**---Playing online games during the COVID-19 pandemic has caused concern for children's learning motivation. The purpose of the study was to determine the relationship between addiction to playing online games with learning motivation in school-age children during the COVID-19 pandemic. This research method is analytic, with a cross sectional approach. The study population was all school-age children aged 6-18 years, totaling 57 children, the respondents were determined using total sampling. The study was conducted on July 13 to July 18, 2021. The analysis was carried out using the chi-square test. The results showed that addiction to playing online games was in the addiction category of 70.2%. Learning motivation for school-age children during the COVID-19 pandemic was in the 59.6% category. The p-value =  $0.001 < = 0.05$  with an Odd Ratio (OR) value of 0.103, this proves that there is a relationship between addiction to playing online games and learning motivation in school-age children during the COVID-19 pandemic.

**Keywords**---COVID-19 pandemic, learning motivation, online games, school age children.

## **Introduction**

### **Internet technology development**

Internet technology provides enormous benefits for progress in all areas of life. One of the internet technologies that is developing very rapidly is online games (Puspita & Rohedi, 2018). Playing games online using the internet is popular with many people, not only for children or teenagers, but also for early adults to approaching old age (Paraskeva et al., 2010).

Adolescents begin to view themselves with personal judgments and standards, but lack the interpretation of social comparisons. Adolescents have unique characteristics, one of which is the nature of wanting to imitate something that is seen, in the circumstances and the surrounding environment. A child will experience growth and development, where a period of rapid growth and development occurs in the first two years of the child's age and in adolescence (Herianti, 2017).

### **Problem**

The use of online games has received a lot of attention from the wider community. Online games are games that can be played by many people at the same time via the internet (Adams, 2013). Since its appearance online games have become very popular and easy to access. Online games can be played on various platforms, such as personal computers (PCs), game consoles (special tools for playing games) and smartphones. Currently, online games such as Mobile Legend (ML), Arena of Valor (AoV), Clash of Clans (CoC), Fortnite, Dota 2 and Player Unknown's Battle Ground (PUBG) are among the most widespread recreational activities regardless of culture, age, and gender (Ashraf et al., 2014; Billieux et al., 2015).

The behavior of children and adolescents who play online games during the COVID-19 period has caused concern from parents and teachers, who think that these playing habits have a negative effect on their academic achievement and social behavior (Aji, 2020; Amri, 2020). Ideally, a student is more concerned with school than playing online games during the COVID-19 period so that the student has a positive attitude towards his school (Masfiah & Putri, 2019). But in reality there are still many students who are more concerned with playing online games than studying at home, so these students have low learning motivation (Pan & Gauvain, 2012; Harandi, 2015).

### **The impact of playing online games during the COVID-19 period**

The impact on school-age children, among others, is that school-age children find it difficult to concentrate on school, are often lazy and even skip school, become indifferent or indifferent, disobedient and do not care about the things that happen around them (Anhar, 2014). School-age children who are addicted will do anything to be able to play online games during the COVID-19 period (Riley, 2004; Ambrosini, 2000). The COVID-19 pandemic has forced most school-age children to work from home. Boredom then becomes their main enemy and is often overcome by playing online games (Muhammad et al., 2020).

Online games as part of culture also affect learning motivation (Marlianti, 2015). From this, we can see that online games have a very negative impact on students. Games that are not educational, because the pictures are just fantasy, so they are just fun, and games are just a waste of money, time, and make someone lazy.

Good learning motivation will give birth to good learning processes and results without thinking about other things, for example playing online games during the COVID-19 period (Theresia, 2019; Lam et al., 2010). On the other hand, students with low learning motivation show reluctance, their attention is focused on playing online games during the COVID-19 period (Duta et al., 2015). Therefore, teachers must be able to apply the learning process in the classroom that can develop learning motivation in students (Anugrahana, 2020; Pradana & Casman, 2020).

According to the World Health Organization (WHO) the number of adolescents aged 6-18 years. About 900 million are in developing countries. Demographic data in the United States shows the number of adolescents aged 10-19 years is around 15% of the world's population (Lutfiwati, 2018). In Asia Pacific shows the number of adolescents aged 10-19 years around 60% of the world's population. Based on the results of the WHO study, it was found that 1 in 5 children aged less than 16 years experienced mental emotional problems. Children aged 4-15 years who experience mental emotional as much as 104 out of 1000 children (Rulandari, 2020; Sjukur, 2012). The incidence rate is higher in the age group above 15 years, which is 140 out of 1000 children.

According to the Central Bureau of Statistics in 2018, the number of school-age children in Indonesia was 237.6 million people, of which 63.4 million were teenagers aged 6-18 years consisting of 32,164,436 males (50.70%) and women as many as 31,279,012 people (49.30%). In 2017, the 10-19 year age group was 22%, consisting of 50.9% boys and 49.1% girls (BPS Indonesia, 2018). Based on data from the Central Statistics Agency (BPS) of Aceh Province, the number of school-age children aged 6-18 years with a percentage of 19.63% consisting of 10.27% males and 9.36% females (BPS Province Aceh, 2019).

Based on data from the Central Statistics Agency (BPS) of Bireuen Regency, the number of school-age children aged 6-14 years is 44,496 people, consisting of 23,076 males and 21,420 females. The number of school-age children aged 15-18 years with a percentage of 43,748 people consisting of 22,133 males and 21,615 females (BPS Kabupaten Bireuen, 2019).

### **Previous research results**

The results of Theresia (2019), entitled The Relationship between Online Game Addiction and Learning Motivation in Junior High School Students in Bandar Lampung City in 2019. The results of the bivariate correlation analysis obtained p value = 0.000 and r value = 0.999. There is a significant relationship that is not in line with the strength of the very strong correlation between addiction to playing online games and learning motivation in junior high school students in the city of Bandar Lampung in 2019.

The results of [Ulfa \(2017\)](#), entitled the influence of online game addiction on adolescent behavior at the Game Center Headquarters. Handsome New Week. From the results of the analysis carried out with the results of hypothesis testing with a value of  $t$  count  $t$  table, or  $4032,276 > 0.195$ , then the proposed hypothesis is accepted, meaning that there is an influence between online game addiction (X) on adolescent behavior (Y).

Based on an initial survey of 10 children during the COVID-19 pandemic, ([Angela, 2013](#)). it was found that 8 school-age children in their daily lives after learning online, the children immediately held their cell phones/smart phones to play online games until the afternoon caused by boredom in children and substitute friends, this resulted in their lack of motivation to learn. Meanwhile, 2 of their school-age children never hold their cell phones when they are at home, they only hold their cellphones when studying online and for school purposes. Based on the background and related research above, the researchers wanted to find out whether there is a relationship between addiction to playing online games with learning motivation in school-age children during the COVID-19 pandemic ([Purwanto et al., 2020](#); [Putria et al., 2020](#)).

## **Method**

The design of this research is analytic, namely research that tries to explore how and why health phenomena occur, with a Cross Sectional approach where data concerning the independent variable or risk and the dependent variable or effect variable, are collected at the same time ([Sugiyono, 2017](#)). With a cross sectional approach, which is a study to study the dynamics of the correlation between risk factors and effects, by approaching, observing or collecting data all at once (point time approach). The independent variable is addiction to playing online games. The dependent variable is the learning motivation of school-age children during the COVID-19 pandemic ([Samsonova & Shkilev, 2021](#); [Malik et al., 2021](#)).

The population in this study were all school-age children aged 6-18 years, totaling 57 children ([Moleong, 2018](#)). The sampling technique in this study used a total sampling technique, the samples in this study were all school-age children aged 6-18 years, totaling 57 children.

## **Research instrument**

- a) Part A.  
Respondent data consisting of age, last education, and gender.
- b) Part B  
The questionnaire used for online game addiction consists of 15 questions. Measurement of online game addiction using the Guttman scale, for each question the author makes an assessment score, if you answer "Yes" it is given a value of 1 and if you answer "No" it is given a value of 2, with the following categories:
  - 1) Addicted, if  $x \geq 27$ .
  - 2) Not addicted, if  $x < 27$ .

## c) Part C

The questionnaire used on learning motivation in the form of 15 questions using a Likert scale. For each positive statement the researcher makes an assessment score, if the answer is Always (SL): 5, Often (SR): 4, Sometimes (KK): 3, Rarely (J): 2, Never (TP): 1 and statements negative score if Always (SL): 1, Often (SR): 2, Sometimes (KK): 3, Rarely (J): 4, Very Never (TP): 5. with the following categories:

- 1) Yes, if  $x \geq 50$ .
- 2) No, if  $x < 50$ .

Data processing is a very important process in research. Therefore, it must be done properly and correctly. Data processing is done manually, namely through the stages:

### **Checking data**

Researchers select or re-check the completeness of filling out the questionnaire from the existing questions so that no questionnaire is wasted. The questionnaires are sorted according to the number of respondents in the questionnaire paper. This process is to see if all data has been filled in according to the instructions and there are no errors in filling out the questionnaire during the research.

### **Coding**

After all the data in the questionnaire was complete, the researcher did coding on all the answers or respondent information. Researchers provide answer codes in numbers or certain codes so that it is easier and simpler when data processing is carried out. For each statement the researcher makes an assessment score, if he answers "Yes" he is given a value of 1 and if he answers "No" he is given a value of 2.

### **Data entry process**

In this process, the researcher entered the data into the master table. All data were entered carefully until the last respondent number. This data entry is done by filling in the columns or boxes in the master table according to their respective answers. For each statement the researcher makes an assessment score, if he answers "Yes" he is given a value of 1 and if he answers "No" he is given a value of 2.

### **Tabulation**

The researcher groups the respondents based on the categories that have been made for the measured variables and are displayed in tabular form. The researcher separates the table of respondent characteristics, univariate analysis and bivariate analysis so that it is easier to understand for those who read.

Data analysis in this study, namely univariate analysis which aims to explain or describe each research variable. Bivariate analysis is an analysis conducted on

two variables that are suspected to be related or correlated. A chi-square test was performed with a significance level of 95% ( $\alpha = 0.05$ ).

## Results and Discussion

### Result

Table 1  
Frequency distribution of respondents' characteristics by age (n=57)

No	Age	Frequency	Percentage
1	6-12 year	28	49.2
2	13-15 year	21	36.8
3	16-18 year	8	14.0
Amount		57	100

Based on Table 1 above, it was found that most school-age children were in the age range of 6-12 years, amounting to 28 respondents (49.2%).

Table 2  
Frequency distribution of respondents' characteristics based on education (n=57)

No	Education	Frequency	Percentage
1	Primary school	26	45.6
2	Junior high school	24	42.1
3	Senior High School	7	12.3
Amount		57	100

Based on Table 2 above, it was found that the education of school-age children was mostly in elementary education, amounting to 26 respondents (45.6%).

Table 3  
Frequency distribution of respondents' characteristics based on length of game playing (n=57)

No	Game-Play Time/Day	Frequency	Percentage
1	$\geq 4$ o'clock	40	70.2
2	$< 4$ o'clock	17	29.8
Amount		57	100

Based on Table 3 above, it was found that the length of playing games for school-age children was 4 hours, totaling 40 respondents (70.2%).

Table 4  
Frequency distribution of respondents' characteristics by gender (n=57)

No	Gender	Frequency	Percentage
1	Woman	18	31.6
2	Man	39	68.4
Amount		57	100

Based on Table 4 above, it was found that the majority of respondents were male, totaling 39 respondents (68.4%).

Table 5  
Frequency distribution of online game addiction (n=57)

No	Addicted	Frequency	Percentage
1	Addicted	40	70.2
2	Not addicted	17	29.8
Amount		57	100

Based on Table 5 above, it was found that addicted to playing online games were more addicted to as many as 40 respondents (70.2%), compared to those who were not addicted to as many as 17 respondents (29.8%).

Table 6  
Distribution of learning motivation in the COVID-19 pandemic period (n=57)

No	Motivation to learn	Frequency	Percentage
1	There is	23	40.4
2	No	34	59.6
Amount		57	100

Based on Table 6 above, it was found that the learning motivation of school-age children during the COVID-19 pandemic was more, which was not as many as 34 respondents (59.6%), compared to 23 respondents (40.4%).

Table 7  
Relationship between online game addiction and learning motivation in school-age children during the COVID-19 pandemic (n=57)

Addicted to Playing Online Games	Motivation for Studying During the COVID-19 Pandemic		Total	P Value	OR 95%
	There is	No			
Addicted	10 25.0%	30 75.0%	40 100%	0.001	0.103
Not Addicted	13 76.5%	4 25.3%	17 100%		
Amount	23 40.4%	34 59.6%	57 100%		

Based on Table 7 above, it shows that school-age children who are addicted to learning are more without motivation in learning as much as 30 (75.0%), compared to school-age children who are not addicted to online games where more have motivation to learn as much as 13 (76.5%). The results of the statistical test show that the  $p$ -value = 0.001, so that the  $p$ -value  $< \alpha$  (0.05), it is proven that there is a relationship between addiction to playing online games and learning motivation in school-age children during the COVID-19 pandemic. From the analysis of the closeness of the relationship, it shows that the Odd Ratio (OR) value is 0.103, which means that respondents who are addicted to online games have a 0.103 times chance of no motivation in learning compared to respondents who are not addicted to online games.

## **Discussion**

### **Characteristics of respondents**

Based on the results of the study, it was found that the most school-age children were in the age range of 6-12 years, amounting to 28 respondents (49.2%). According to the assumption of researchers, addiction to online games has a direct impact on the interest and enthusiasm for learning for children aged 6-12 years who are in school, this is because children are new to using mobile phones so they are very interested in playing online games so that they forget their responsibility to learn as children school age.

A person who is addicted to online games spends 39 hours per week playing online games (Young, Karyanta, 2018). Online game addiction is the behavior of someone who wants to continue playing online games that spend a lot of time and it is possible that the individual concerned is unable to control or control it.

Based on the results of the study, it was found that the education of school-age children was mostly in elementary education, amounting to 26 respondents (45.6%) (Sani, 2015). Learning motivation is everything that can motivate students or individuals to learn. Without learning motivation, a student will not learn and ultimately will not achieve maximum learning outcomes. Researchers assume that elementary school children are left by their parents to be given mobile phones to play online games due to a lack of parental supervision, this is what causes children to be negligent, so they no longer care about learning (Kanca et al., 2020; Ginaya et al., 2021).

Based on the results of the study, it was found that the sex of the respondents was male, amounting to 39 respondents (68.4%). The researcher assumes that game addiction in male students is higher than female students who are addicted to playing online games. Men who are addicted to games can be seen from the component of addiction, namely excessive use in which a person forgets all his activities that dominate thoughts, feelings, and behavior (Rinartha & Suryasa, 2017). There are many students who are willing to set aside pocket money just to play games (Marlianti, 2015). This is due to the nature of online games that tend to be addictive or make players feel addicted to continue playing so that learning time is reduced.



Based on the results of the study, it can be concluded that these school-age children do not have the motivation to learn and in school-age children, this is because school-aged children spend more time playing online games than studying, which is caused by the COVID-19 pandemic where learning activities are carried out online and lack of parental supervision of children.

### **The relationship between online game addiction and learning motivation in school age children during the COVID-19 pandemic**

Based on the results of the study, it was found that school-age children who were addicted to where there was no motivation in learning were 30 (75.0%), compared to school-age children who were not addicted to online games where more had motivation to learn as much as 13 (76.5%). The results of the statistical test show that the p-value = 0.001, so that the p-value  $< \alpha$  (0.05), it is proven that there is a relationship between addiction to playing online games and learning motivation in school-age children during the COVID-19 pandemic.

### **Impact of playing online games**

During the COVID-19 period for school-age children, among others, school-age children became difficult to concentrate on school, were often lazy and even skipped school, became indifferent or indifferent, disobedient and did not care about the things that happened around them. School-age children who are already addicted will do anything to be able to play online games during the COVID-19 period. The COVID-19 pandemic has forced most school-age children to work from home. Boredom then becomes their main enemy and is often overcome by playing online games (Anhar, 2014).

### **Online games part of culture**

Online games as part of culture also affect learning motivation. From this, we can see that online games have a very negative impact on students (Marlianti, 2015). Games that are not educational, because the pictures are just fantasy, so they are just fun, and games are just a waste of money, time, and make someone lazy.

The Relationship between Online Game Addiction and Learning Motivation in Junior High School Students in Bandar Lampung City in 2019. The results of the bivariate correlation analysis test obtained p value = 0.000 and r value = 0.999. There is a significant relationship that is not in line with the strength of the very strong correlation between addiction to playing online games and learning motivation in junior high school students in the city of Bandar Lampung in 2019.

The influence of online game addiction on adolescent behavior at the Game Center Headquarters Jalan Hr. Subrantas District of Handsome Pekanbaru. From the results of the analysis carried out with the results of hypothesis testing with a value of t count t table, or 4032,276 0.195, then the proposed hypothesis is accepted, meaning that there is an influence between online game addiction (X) on adolescent behavior (Y).

### **Motivation to learn**

With good learning motivation, it will give birth to good learning processes and results without thinking about other things, for example playing online games during the COVID-19 period (Anhar, 2014). On the other hand, students with low learning motivation show reluctance, their attention is focused on playing online games during the COVID-19 period (Yuliana, 2020). Therefore, teachers must be able to apply the learning process in the classroom that can develop learning motivation in students.

Based on the results of the study, there is a relationship between addiction to playing online games with learning motivation in school-age children during the COVID-19 pandemic, this is due to addiction to online games during the COVID-19 period causing a person to not be able to develop their abilities or skills in the field of science and not can gain knowledge or experience declining academics, addiction to online games during the COVID-19 period makes learning motivation decrease and worsen because students prioritize playing online games during the COVID-19 period compared to studying.

### **Conclusion**

Based on the research, it was found that there was a relationship between addictions to playing online games with learning motivation in school-age children during the COVID-19 pandemic. The Learning Motivation of Middle School Students in Bandar Lampung City in 2019 are:

- Bivariate correlation analysis test with p value = 0.000 and r value = 0.999. There is a significant relationship
- Test the hypothesis with the value of t-count t-table, = 4032,276 0.195, then the hypothesis is accepted because there is an influence between online game addiction (X) on student behavior (Y).

### **Acknowledgments**

Thank you to the Chair and LPPM STIKes Muhammadiyah Lhokseumawe who have given permission, and provided knowledge and direction as well as financial support so that this research can be carried out. Thanks also to all Gampong Cot Keumude officials, Peusangan District, Bireuen Regency who have participated in this research.

### **References**

- Adams, D. (2013). A Wise Guide to Internet Learning For Children. Sukabumi.
- Aji, R. H. S. (2020). Impact of Covid-19 on Education in Indonesia: Schools, Skills, and Learning Processes. *SALAM Journal*, 395-405.
- Ambrosini, P. J. (2000). Historical development and present status of the schedule for affective disorders and schizophrenia for school-age children (K-SADS). *Journal of the American Academy of Child & Adolescent Psychiatry*, 39(1), 49-58. <https://doi.org/10.1097/00004583-200001000-00016>

- Amri, A. (2020). Dampak covid-19 terhadap UMKM di Indonesia. *BRAND Jurnal Ilmiah Manajemen Pemasaran*, 2(1), 123-131.
- Angela, N. K., (2013). The Relationship between Child Characteristics and Personality with Bullying Incidents in Fifth Grade Students at SD "X" in Bandung Regency. *COPING (Community of Publishing in Nursing)*, 3(3).
- Anhar. (2014). Children's Learning Guide. Sukabumi: Adamssein.
- Anugrahana, A. (2020). Barriers, Solutions and Hopes: Online Learning during the Covid-19 Pandemic by Elementary School Teachers. *Scholaria: Journal of Education and Culture*, 10(3), 282-289.
- Ashraf, H., Motlagh, F. G., & Salami, M. (2014). The impact of online games on learning English vocabulary by Iranian (low-intermediate) EFL learners. *Procedia-Social and Behavioral Sciences*, 98, 286-291. <https://doi.org/10.1016/j.sbspro.2014.03.418>
- Billieux, J., Thorens, G., Khazaal, Y., Zullino, D., Achab, S., & Van der Linden, M. (2015). Problematic involvement in online games: A cluster analytic approach. *Computers in Human Behavior*, 43, 242-250. <https://doi.org/10.1016/j.chb.2014.10.055>
- BPS Indonesia. (2018). Total Population by Age in Indonesia. Jakarta: Central Bureau of Statistics.
- BPS Kabupaten Bireuen. (2019). Total Population by Age in Bireuen Regency. Bireuen: Central Bureau of Statistics.
- BPS Province of Aceh. (2019). Number of Population by Age in Aceh Province. Banda Aceh: Central Bureau of Statistics.
- Duta, N., Panisoara, G., & Panisoara, I. O. (2015). The Effective Communication in Teaching. Diagnostic study regarding the academic learning motivation to students. *Procedia-Social and Behavioral Sciences*, 186, 1007-1012. <https://doi.org/10.1016/j.sbspro.2015.04.064>
- Ginaya, G., Kanca, I. N., & Sri Astuti, N. N. (2021). Collaborative network learning (CNL) on students' online learning. *International Journal of Linguistics, Literature and Culture*, 7(5), 362-370. <https://doi.org/10.21744/ijllc.v7n5.1923>
- Harandi, S. R. (2015). Effects of e-learning on Students' Motivation. *Procedia-Social and Behavioral Sciences*, 181, 423-430. <https://doi.org/10.1016/j.sbspro.2015.04.905>
- Herianti, E.B., (2017). Child Development Volume 2. Sixth edition. Jakarta: Erlangga.
- Kanca, I. N., Ginaya, G., & Sri Astuti, N. N. (2020). The effectiveness of the problem solving method on learning outcomes of the English course for room division operation during the COVID-19 pandemic. *International Journal of Linguistics, Literature and Culture*, 7(1), 12-22. <https://doi.org/10.21744/ijllc.v7n1.1102>
- Lam, S. F., Cheng, R. W. Y., & Choy, H. C. (2010). School support and teacher motivation to implement project-based learning. *Learning and Instruction*, 20(6), 487-497. <https://doi.org/10.1016/j.learninstruc.2009.07.003>
- Lutfiwati, S. (2018). Understanding Online Game Addiction Through a Neurobiological Approach. *Journal of Psychology*. 1(1).
- Malik, H., Humaira, M. A., Komari, A. N., Fathurrochman, I., & Jayanto, I. (2021). Identification of barriers and challenges to teaching English at an early age in

- Indonesia: an international publication analysis study. *Linguistics and Culture Review*, 5(1), 217-229. <https://doi.org/10.21744/lingcure.v5n1.1485>
- Marlianti, D. (2015). Relationship between Addiction to Playing Online Games with Sleep Patterns and Learning Motivation for Children aged 10-12 Years at SD Mattoangin 2, Mariso District, Makassar City. Essay. Faculty of Health Sciences UIN Alauddin Makassar.
- Masfiah, S., & Putri, R. V. (2019). Gambaran motivasi belajar siswa yang kecanduan game online. *FOKUS (Kajian Bimbingan & Konseling dalam Pendidikan)*, 2(1), 1-8.
- Moleong, L. J. (2018). *Qualitative Research Methodology. Quantitative. Revised Edition Third Printing*. Publisher: PT. Rosdakarya Teens
- Muhammad, S., Long, X., & Salman, M. (2020). COVID-19 pandemic and environmental pollution: A blessing in disguise?. *Science of the total environment*, 728, 138820. <https://doi.org/10.1016/j.scitotenv.2020.138820>
- Pan, Y., & Gauvain, M. (2012). The continuity of college students' autonomous learning motivation and its predictors: A three-year longitudinal study. *Learning and Individual Differences*, 22(1), 92-99. <https://doi.org/10.1016/j.lindif.2011.11.010>
- Paraskeva, F., Mysirlaki, S., & Papagianni, A. (2010). Multiplayer online games as educational tools: Facing new challenges in learning. *Computers & Education*, 54(2), 498-505. <https://doi.org/10.1016/j.compedu.2009.09.001>
- Pradana, A. A., & Casman, C. (2020). The effect of social distancing policies on the covid-19 outbreak on vulnerable groups in Indonesia. *Indonesian Journal of Health Policy*, 9(2), 61-67.
- Purwanto, A., Pramono, R., Asbari, M., Santoso, P. B., Wijayanti, L. M., Hyun, C. C., & Putri, R. S. (2020). Explorative Studies Impact of The Covid-19 Pandemic Towards Online Learning In Elementary Schools. *Journal of Education, Psychology and Counseling*, 2(1), 1-12.
- Puspita, R. H., & Rohedi, D. (2018, February). The impact of internet use for students. In *IOP Conference Series: Materials Science and Engineering* (Vol. 306, No. 1, p. 012106). IOP Publishing.
- Putria, H., Maula, L. H., & Uswatun, D. A. (2020). Analysis of the Online Learning Process (DARING) during the COVID-19 Pandemic in Elementary School Teachers. *Basicedu's Journal*.
- Riley, A. W. (2004). Evidence that school-age children can self-report on their health. *Ambulatory Pediatrics*, 4(4), 371-376. <https://doi.org/10.1367/A03-178R.1>
- Rinartha, K., & Suryasa, W. (2017). Comparative study for better result on query suggestion of article searching with MySQL pattern matching and Jaccard similarity. In *2017 5th International Conference on Cyber and IT Service Management (CITSM)* (pp. 1-4). IEEE.
- Rulandari, N. (2020). The impact of the Covid-19 pandemic on the world of education in Indonesia. *Ilomata International Journal of Social Science*, 1(4), 242-250.
- Samsonova, E., & Shkilev, R. (2021). A logical-meaningful model of the formation of a culture of educational and research activities among junior university students in the process of teaching English. *Linguistics and Culture Review*, 5(S4), 607-616. <https://doi.org/10.21744/lingcure.v5nS4.1677>
- Sani. (2015). Self-Control Ability of Adolescent Mobile Legends Game Addicts in Kebun Beler Village, Bengkulu City. Essay.

- Sjukur, S. B. (2012). Pengaruh blended learning terhadap motivasi belajar dan hasil belajar siswa di tingkat SMK. *Jurnal pendidikan vokasi*, 2(3).
- Sugiyono. (2017). *Qualitative Quantitative Research and R & D*. Publisher: Alfabeta Publishers
- Theresia, L. G. (2019). Relationship between Online Game Addiction and Academic Achievement of Students at the Faculty of Engineering, University of Indonesia. Essay. Depok: Faculty of Nursing U1.
- Ulfa, T. (2017). The Effect of Online Game Addiction on Adolescent Behavior at the Game Center Headquarters Jalan Hr. Subrantas Subdistrict of Handsome Pekanbaru Baru. *Journal of Nursing*.
- Young, Karyanta. (2018). Online Game Addiction Behavior in terms of Academic Self-Efficacy and Social Skills in Adolescents in Surakarta. *Anime*. 19(1), 1-15.
- Yuliana, Y. (2020). Corona virus diseases (Covid-19): Sebuah tinjauan literatur. *Wellness And Healthy Magazine*, 2(1), 187-192.