p-ISSN: 2477-3859 e-ISSN: 2477-3581
JURNAL INOVASI PENDIDIKAN DASAR
The Journal of Innovation in Elementary Education
http://jipd.uhamka.ac.id
Volume 9 • Number 2 • November 2024 • 26 - 36

The Influence of Quizizz Usage, Digital Literacy, and Gender on The Creative Thinking Ability of Students at Jatipulo 03 Public Elementary School, Jakarta

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Received: September 20, 2024 Accepted: November 29, 2024 Published: November 30, 2024

Abstract

The ability to think creatively for students is very important in the era of global competition, as the complexity of problems in all aspects of modern life is increasing. This study aims to analyze the influence of using Quizizz, digital literacy, and gender on students' creative thinking abilities. Method: quantitative method with multiple regression analysis. Data collection through tests and questionnaires. Results: (1) The use of Quizizz has a positive and significant effect on the creative thinking ability of sixth-grade students at SDN Jatipulo 03 Jakarta; (2) Digital literacy has a positive and significant effect on the creative thinking ability of sixth-grade students at SDN Jatipulo 03 Jakarta; (3) Gender does not have an effect on the creative thinking ability of sixth-grade students at SDN Jatipulo 03 Jakarta; (4) The use of Quizizz, digital literacy, and gender simultaneously have a positive and significant effect on the creative thinking ability of sixth-grade students at SDN Jatipulo 03 Jakarta.

Keywords: The use of Quizizz, Digital Literacy, Gender, Creative Thinking Skills.

Pengaruh Penggunaan Quizizz, Literasi Digital, dan Gender terhadap Kemampuan Berpikir Kreatif Peserta didik Sekolah Dasar Negeri Jatipulo 03 Jakarta

Abstrak

Kemampuan berpikir kreatif bagi siswa merupakan hal yang sangat penting dalam era persaingan global, sebab tingkat kompleksitas permasalahan dalam segala aspek kehidupan modern semakin tinggi. Penelitian ini bertujuan untuk menganalisis pengaruh penggunaan quizizz, literasi digital, dan gender terhadap kemampuan berpikir kreatif siswa. Metode: metode kuantitatif dengan analisis regresi berganda. Pengumpulan data melalui tes dan kuesioner. Hasil: (1) Penggunaan quizizz memiliki pengaruh positif dan signifikan terhadap kemampuan berpikir kreatif peserta didik kelas VI SDN Jatipulo 03 Jakarta; (2) Literasi digital memiliki pengaruh positif dan signifikan terhadap kemampuan berpikir kreatif peserta didik kelas VI SDN Jatipulo 03 Jakarta; (3) Gender tidak memberikan pengaruh terhadap kemampuan berpikir kreatif peserta didik kelas VI SDN Jatipulo 03 Jakarta; (4) Penggunaan quizizz, literasi digital, dan gender memiliki pengaruh positif dan signifikan secara simultan terhadap kemampuan berpikir kreatif peserta didik kelas VI SDN Jatipulo 03 Jakarta.

Kata kunci: Penggunaan Quizizz, Literasi Digital, Gender, Kemampuan Berpikir Kreatif.

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INTRODUCTION

As time progresses and the development of science and technology, future challenges will continue to change and competition will become increasingly fierce. Now Indonesia is entering 21st century education and industrial revolution 4.0 and will even move towards society 5.0. This condition is characterized by rapid developments in the field of internet technology. To respond to these conditions, it needs to be balanced with competent competencies and skills, one of which is creative thinking.

Creative thinking is a whole series of cognitive activities used by individuals according to objects, certain conditions and problems as a solution effort based on individual capacity (Birgirli, 2015). (Guilford, 1973) sees creative thinking as a type of divergent thinking. (Guilford, 1973) further put forward two ways of thinking, namely convergent and divergent thinking. Convergent thinking is an individual's way of thinking about something with the view that there is only one right answer. Meanwhile, divergent thinking is an individual's ability to look for various alternative answers to problems.

Increasing creative thinking has now become a priority in learning. In the era of global competition, the ability to think creatively becomes important for students as problems become increasingly complex in every aspect of modern life. In addition, creative thinking is classified as a higher level competency and can be considered a continuation of basic learning skills (Mursidik et al., 2015).

Many classroom lessons still emphasize student understanding without involving creative thinking abilities (Siswono, 2018). This is supported by students who are not given the opportunity to find answers and methods that are different from those taught by their teachers. Apart from that, teachers' motivation and ability to foster students' creativity and creative thinking in the learning process is still lacking.

In the 21st century, social activities have been mediated through digital facilities such as email, newsgroups, message boards, internet telephony, chat rooms, instant messaging, and digital video conferencing, making digital-enabled communities a way of life. Not only is the social community growing, the internet also offers unlimited information. Science and technology are developing so rapidly that they can influence all aspects of life. With the rapid development of information and communication technology (ICT) in this digital era, the competencies required are basically different from previous eras (Delgado et al., 2018).

The use of technology in learning activities at school can help students to further explore their experiences in solving learning problems quickly, easily and funly. Teachers facilitate students to use technology in learning through exercises or assessments in a fun way, namely using media in the form of applications or web tools, one of which is Quizizz.

The Quizizz application is a game-based educational application, which brings multiplayer activities to the classroom and makes classroom practice interactive and fun (Eka & Nugraha, 2021). As an assessment medium, Quizizz has advantages and disadvantages. The advantage of Quizizz is that it can be accessed anytime and anywhere with adequate internet support. Quiziz has a very attractive appearance and is easy to create and play as a learning medium, as well as increasing students' attention and focus in learning (Eddy et al., 2020).

One of the literacies that humans must master is digital literacy. Digital literacy is able to develop students' creative thinking abilities (Nasrullah et al., 2017). Good digital literacy is needed not only to take advantage of the digitalization of almost all aspects of life, but also to reduce exposure to risks and threats in everyday digital environments related to device protection, personal data protection and privacy, and health and well-being (Reichert et al., 2021). The current development of digital media and information technology provides challenges for users in accessing, selecting and utilizing information and the ability to search for this information requires the accuracy and quality of the information obtained by the user. The importance of digital literacy needs to be instilled in students from an early age.

METHODS

The design used in this research is a quantitative research design with multiple linear regression analysis. Multiple linear regression analysis in this research was carried out to analyze the influence of the independent variable on the dependent variable either partially or simultaneously. The form of this research is quantitative research with a survey method, where data collection is carried out using tests and questionnaires.

FINDINGS AND DISCUSSION

The data in this study were obtained from the results of tests and surveys conducted by 60 sixth grade students of SDN Jatipulo 03 West Jakarta. Data were collected directly at the research location. The test was conducted via Quizizz, while the survey was conducted via Google Form. Data collection was conducted from November 6-10, 2023. After checking the results of the survey and test, all respondents filled in completely. This means that the data collected for analysis was 60 data.

1. Respondent Characteristics

Respondents in this study were dominated by male respondents, namely 31 people (52%). While female respondents were 29 people (48%).

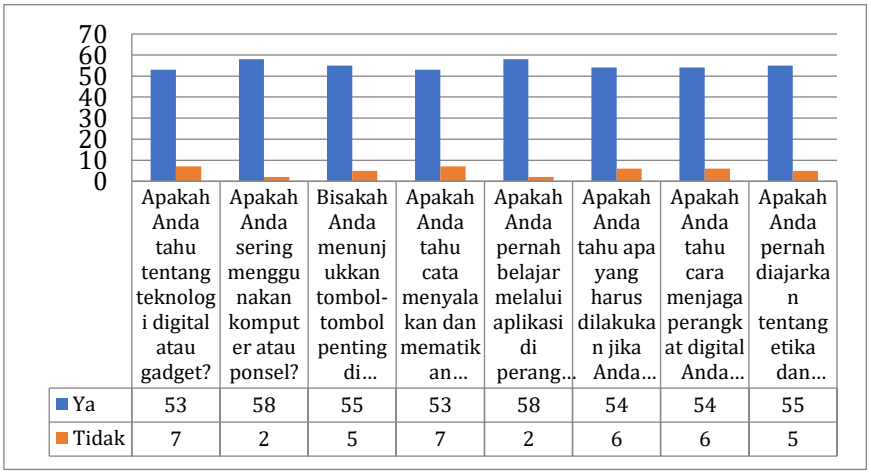

Figure 1. Respondents' Knowledge of Digital Devices
Source: (Data Processing Results, 2024)

Based on the image above, it can be seen that on average students have good knowledge about digital devices. More than 88% of respondents know about technology and digital devices and their use.

2. Descriptive Statistics

a. Creative Thinking Ability

The creative thinking ability test conducted on 60 students consisted of 15 items summarized in 4 dimensions. The average results of the creative thinking ability test of students are as follows.

Table 1. Average Score of Students' Creative Thinking Skills

Dimensi	Skor Rata-Rata	Kriteria
Berpikir Luwes	61.67	Cukup Kreatif
Berpikir Merinci	49.58	Kurang Kreatif
Berpikir Lancar	61.67	Cukup Kreatif

Berpikir Asli	51.04	Cukup Kreatif
Rata-Rata Kemampuan Bepikir Kreatif	55.99	Cukup Kreatif

Based on Table 1, the average creative thinking ability of grade VI students at SDN Jatipulo Jakarta is 55.99 with a fairly creative category. This shows that students' ability to reason or imagine to solve problems is quite creative and needs improvement. The detailed thinking dimension has the lowest average in creative thinking ability, which is 49.58 with a less creative category. This shows that students' capacity to grow or expand ideas in more detail needs to be developed. The highest average creative thinking ability is the flexible thinking dimension, which is 61.67 with a fairly creative criterion. This shows that students' ability to be able to think of more than one answer in solving problems is quite high.

b. Use of Quizizz

The use of quizizz consists of three dimensions, namely ease of use, peer coaching, and technology engagement. The description of the variables of use of quizizz is explained as follows:

Table 2. Description of Average Answers for Using Quizizz

Dimensi	**No Item**	**Rata-rata**	
easy of use	1	4.43	4,12
	2	3.97	
	3	4.37	
	4	4.08	
	5	3.75	
	6	4.02	
peer coaching	7	4.20	4,07
	8	4.07	
	9	4.23	
	10	3.83	
technology engagement	11	4.22	3.83
	12	3.77	
	13	3.55	
	14	3.47	
	15	4.15	

Dimensi	No Item	Rata-rata
	Rata-Rata	4,01

Source: (Data Processing Results, 2024)

The average answer of respondents on the variable Use of Quizizz is 3.29. The highest average is the easy of use dimension of 4.12 and the lowest average is the technology engagement dimension of 3.82. The easy of use dimension consists of 5 indicators, with the highest average being indicator item number 1, namely the statement "I understand how to use the quizizz application for learning assessment". This means that the average respondent has an understanding that quizizz is an application for conducting evaluations in learning. The lowest average is indicator item number 5, namely the statement "I always work on the assessments given by the teacher using Quizizz". This shows that there are still respondents who do not work on assessments through quizizz. The peer coaching dimension consists of 5 indicators. Indicator with item number 9 has the highest average of 4.23, namely the statement "I usually discuss learning using the Quiziz application" this shows that respondents use quizizz to discuss learning. The lowest average is indicator item number 10 of 3.83, namely the statement "I enjoy using the quizizz application for learning assessment". This shows that not all respondents are happy to use quizizz for assessment.

The technology engagement dimension consists of 5 indicators. Indicator with item number 11 has the highest average of 4.22, namely the statement "Assessment is more effective when using the quizizz application compared to conventional/written" this shows that the average respondent agrees that quizizz can be more effective than conventional. The lowest average is indicator item number 14 of 3.47, namely the statement "Questions presented through the quizizz application are easy to read". This shows that not all respondents understand the questions presented in the application.

c. Digital Literacy

Digital literacy consists of dimensions of access, ability, practice, and attitude. The description of the digital literacy variables is explained as follows.

Table 3. Description of Average Digital Literacy Answers

Dimensi	No Item	Rata-rata	
Menemukan dan mengonsumsi konten digital	1	2.65	3.26
	2	3.33	
	3	3.38	
	4	3.38	
	5	3.30	
	6	3.33	
	7	3.43	
	8	3.07	
Membuat konten digital	9	3.23	3.25
	10	3.22	
	11	3.25	
	12	3.30	
	13	3.30	3.34

Dimensi	No Item	Rata-rata	
Berkomunikasi atau berbagi konten digital	14	3.35	
	15	3.43	
	16	3.33	
	17	3.28	
Rata-Rata			3.27

Source: (Data Processing Results, 2024)

The average respondent's answer to the digital literacy variable was 3.27. The highest average was the Communicating or sharing digital content dimension of 3.34 and the lowest average was the Creating digital content dimension of 3.25.

3. Hypothesis Testing

a. Multiple Linear Regression Equation

Multiple regression analysis in this study was conducted to prove the effect of digital literacy and gender variables on creative thinking skills partially or simultaneously. The multiple linear regression equation in this study is as follows:

$$Y = a + b1X1 + b2X2 + b3X3$$

Description:
Y= Creative Thinking Skills
a = Constant value
b = regression coefficient
X1 = Use of Quizizz
X2 = Digital Literacy
X3 = Gender

Table 4. Regression Coefficient Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	14.614	1.695		8.622	.000
	Penggunaan Quizizz	.146	.072	.263	2.043	.046
	Literasi Digital	.363	.126	.369	2.883	.006
	Gender	.421	.498	.105	.846	.401

a. Dependent Variable: Berpikir Kreatif

Based on the results of Table 4, the form of the multiple regression equation is as follows:

$$Y = 14.614 + 0.146X1 + 0.363X2 + 0.421X3$$

The explanation of the multiple linear regression equation above is as follows:

1. The constant value (a) is 14.614 which is a constant value which means that if there is no use of quizizz, digital literacy and gender or if X1, X2 and X3 are 0, then the creative thinking ability of students is worth 14.614.

2. The regression coefficient of the use of quizizz (X1) is 0.146, meaning that if the use of quizizz (X1) increases by one unit, the creative thinking ability of students (Y) will increase by 0.146 units assuming that other independent variables have a fixed value. The coefficient is positive, meaning that there is a positive relationship. The higher the use of quizizz, the greater the creative thinking ability of students.
3. The regression coefficient of digital literacy (X2) is 0.363, meaning that if digital literacy (X2) increases by one unit, students' creative thinking ability (Y) will increase by 0.363 units assuming other independent variables remain constant. The coefficient is positive, meaning that there is a positive relationship. The higher the digital literacy, the greater the students' creative thinking ability.

b. Correlation and Determination Test

To measure the magnitude of the relationship between the independent variable (X) and the dependent variable (Y), a correlation test is carried out, which is indicated by the magnitude of the correlation coefficient (R). To measure the magnitude of the influence of the independent variable (X) on the dependent variable (Y), a determination test is carried out, which is indicated by the magnitude of the Adjuster R Square (R2) value. The results of the correlation and determination tests are shown in the following table.

Table 5. Results of Correlation and Determination Tests

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.493[a]	.154	.109	1.77969

a. Predictors: (Constant), Gender, Literasi Digital, Penggunaan Quizizz

Source: (Processed Data SPSS Output, 2024)

Based on Table 5, the correlation coefficient (R) is 0.493 or 49.3%, which means that there is a moderate relationship (because it is in the interval 0.400-0.599) between the independent variables consisting of the use of quizizz, digital literacy and gender with students' creative thinking skills. And the R Square value is 0.154 or 15.4%, which means that the independent variables consisting of the use of quizizz, digital literacy and gender contribute 15.4% to the variable of students' creative thinking skills. While the rest (100% -15.4% = 84.6%) is explained by other variables outside this study.

The Effect of Quizizz Use on Creative Thinking Skills

The results of the study indicate that the use of quizizz has a positive and significant effect on creative thinking skills. This is evidenced by the t-test value of 2.043 which is greater than the t-table of 1.67 with a significance level of 0.046 which is smaller than 0.05. The regression coefficient of the use of quizizz is 0.146, meaning that if the use of quizizz increases by one unit, the creative thinking skills of students will increase by 0.146 units with the assumption that other independent variables have a fixed value. The coefficient is positive, meaning that there is a positive relationship. The higher the use of quizizz, the greater the creative thinking skills of students.

The Effect of Digital Literacy on Creative Thinking Skills

The results of the study indicate that digital literacy has a positive and significant effect on creative thinking skills. This is evidenced by the t-test value of 2.883 which is greater

than the t-table of 1.67 with a significance level of 0.006 which is smaller than 0.05. The digital literacy regression coefficient is 0.363, meaning that if digital literacy (X2) increases by one unit, students' creative thinking skills (Y) will increase by 0.363 units assuming that other independent variables remain constant. The coefficient is positive, meaning that there is a positive relationship. The higher the digital literacy, the greater the students' creative thinking skills.

The results of this study are in line with the research of (Astalini et al., 2022; Kesici, 2022) which stated that digital literacy has a statistically significant and positive effect on creative thinking. This finding also strengthens the study of (Rizal et al., 2021) which states that creative thinking skills can be developed through digital literacy.

(Tabieh et al., 2021) stated that the application of digital literacy can help students acquire creative thinking skills consisting of fluency, flexibility, and originality. Based on the characteristics of respondents regarding knowledge of digital devices, more than 88% of respondents know about technology and digital devices and their uses. This shows that the use of digital technology in the environment of SDN Jatipulo 03 Jakarta is already high. However, the use of digital devices has not been maximized to carry out literacy in learning.

The average creative thinking ability of grade VI students at SDN Jatipulo Jakarta is the average creative thinking ability of grade VI students at SDN Jatipulo Jakarta is 55.99 with a fairly creative category. This shows that students' ability to reason or imagine to solve problems is quite creative and needs improvement. The detailed thinking dimension has the lowest average in creative thinking ability, which is 49.58 with a less creative category. This shows that This shows that students' capacity to grow or expand ideas in more detail needs to be developed. The highest average creative thinking ability is the flexible thinking dimension, which is 61.67 with a fairly creative criterion. This shows that students' ability to be able to think of more than one answer in solving problems is quite high. By increasing students' digital literacy both in the school and home environments, it is hoped that it can improve students' creative thinking abilities.

Digital literacy is described as more than just mastery of technological skills (Goodfellow, 2011). It always includes critical and creative thinking, and the use of problem-solving skills in a technological environment.

The Influence of Gender on Creative Thinking Ability

The results of the study indicate that gender does not have a positive and significant effect on creative thinking ability. This is evident from the t-value of 0.846 which is smaller than the t-table of 1.67 with a significance level of 0.401 which is greater than 0.05. The gender regression coefficient of 0.421 means that if gender increases by one unit, the creative thinking ability of students (Y) will increase by 0.421 units assuming other independent variables remain constant.

The results of this study strengthen the research of (Astra et al., 2022; Suprapto et al., 2018) which show that there is no influence of gender on students' creative thinking ability. The findings of this study contradict the opinion of (Matud et al., 2007) which states that there is a statistically significant interaction between gender and creative thinking ability. (Amir, 2013) also stated that students' creative thinking abilities differ according to gender. Male students have lower creative thinking skills than female students.

Gender differences in creative thinking are very minimal and depend on education level; men with primary or secondary education were found to have higher scores than women with the same level of education (Matud et al., 2007).

The Effect of Simultaneous Use of Quizizz, Digital Literacy, and Gender on Creative Thinking Skills

The results of the study showed that, simultaneously, the use of quizizz, digital literacy, and gender had a positive and significant effect on students' creative thinking skills.

CONCLUSION

Based on the results of the analysis and discussion, the conclusions in this research are as follows:

1. The use of quizizz has a positive and significant influence on the creative thinking abilities of class VI students at SDN Jatipulo 03 Jakarta. The higher the level of students' use of quiziz, the students' creative thinking abilities will also increase.
2. Digital literacy has a positive and significant influence on the creative thinking abilities of class VI students at SDN Jatipulo 03 Jakarta. The higher the digital literacy, the students' creative thinking abilities will also increase.
3. Gender has no influence on the creative thinking abilities of class VI students at SDN Jatipulo 03 Jakarta.
4. The use of quizizz, digital literacy, and gender have a positive and significant influence simultaneously on the creative thinking abilities of class VI students at SDN Jatipulo 03 Jakarta.

REFERENCES

Aabo, S. (2005). The role and value of public libraries in the age of digital technologies. *Journal of Librarianship and Information Science*, *37*(4), 205–211. https://doi.org/10.1177/0961000605057855

Afiani, K., & Faradita, M. (2019). PENGGUNAAN APLIKASI QUIZIZZ UNTUK MENINGKATKAN HASIL BELAJAR MAHASISWA PGSD PADA MASA PANDEMI COVID-19. *Jurnal Online Universitas Muhammadiyah Surabaya*, 209–218.

Ageng, Y., & Legowo, S. (2020). *PENGARUH GENDER TERHADAP KEMAMPUAN*. *01*.

Aini, Y. I. (2019). (PENTING) Pemanfaatan Media Pembelajaran Quizizz Untuk Pembelajaran Jenjang Pendidikan Dasar Dan Menengah Di Bengkulu. *Jurnal Kependidikan*, *2*(25), 1–6.

Amir, Z. A. (2013). Perspektif Gender Dalam Pembelajaran Matematika. *Marwah: Jurnal Perempuan, Agama Dan Jender*, *12*(1), 15. https://doi.org/10.24014/marwah.v12i1.511

Ananda, R. (2019). Penerapan Metode Mind Mapping Untuk Meningkatkan Kemampuan Berpikir Kreatif Siswa Sekolah Dasar. *Edukatif : Jurnal Ilmu Pendidikan*, *1*(1), 1–10. https://doi.org/10.31004/edukatif.v1i1.1

Anwar, Z. (2019). Hasil belajar mahasiswa Pgsd pada masa pandemi covid-19. *Penggunaan Aplikasi Quizizz Untuk Meningkatkan Hasil Belajar Mahasiswa Pgsd Pada Masa Pandemi Covid-19*, 209–218.

Ardianto, R., Prasetya, M. I., Army, W. L., Kusumarini, E., & Pratiwi, E. Y. R. (2022). Analisis Penggunaan Aplikasi Quizizz Pada Evaluasi Pembelajaran Dengan Metode Media System Dependency Dan Technology Acceptance Model. *Jurnal Ilmiah Informatika Komputer*, *27*(2), 177–193. https://doi.org/10.35760/ik.2022.v27i2.6797

Astalini, A., Darmaji, D., Kurniawan, D. A., & Minarsih, M. (2022). Identification of HOTS Creative Thinking, Science Process Skills and Digital Literacy in Physics Subject. *Jurnal Penelitian Fisika Dan Aplikasinya (JPFA)*, *12*(1), 47–61. https://doi.org/10.26740/jpfa.v12n1.p47-61

Astra, R. R. S., Vilela, A., Pereira, J., & Zou, S. (2022). Pengaruh gender terhadap kemampuan berpikir kreatif siswa SMP yang telah memperoleh pendekatan RME. *Jurnal Pembelajaran Matematika Inovatif*, *5*(1), 307–316. https://doi.org/10.22460/jpmi.v5i1.307-316

Aulia, U. (2018). Pengaruh Model Pembelajaran Discovery Learning Terhadap Kemampuan Berpikir Kreatif Pada Mata Pelajaran Matematika Siswa Kelas IV Di MIN 10 Bandar Lampung Tahun Ajaran 2017/2018. *Economica*, *6*(1), 1–157.

Birgirli, B. (2015). Creative and Critical Thinking Skills in Problem-based Learning Environments. *Journal of Gifted Education and Creativity*, *2*(2), 71–71. https://doi.org/10.18200/jgedc.2015214253

Casey, L., & Bruce, B. C. (2011). The practice profile of inquiry: Connecting digital literacy and pedagogy. *E-Learning and Digital Media*, *8*(1), 76–85. https://doi.org/10.2304/elea.2011.8.1.76

Chase, Z., & Laufenberg, D. (2011). Embracing the Squishiness of Digital Literacy. *Journal of Adolescent & Adult Literacy*, *54*(7), 535–537. https://doi.org/10.1598/jaal.54.7.7

Cintia, N. I., Kristin, F., & Anugrahaeni, I. (2018). Penerapan Model Pembelajaran Discovery Learning Nichen Irma Cintia , 2 Firosalia Kristin & 3 Indri Anugraheni Universitas Kristen Satya Wacana Increasing Students ' Thinking Creative Ability and. *Perspektif Ilmu Pendidikan*, *32*(1), 69–77.

Delgado, P., Vargas, C., Ackerman, R., & Salmerón, L. (2018). Don't throw away your printed books: A meta-analysis on the effects of reading media on reading comprehension. *Educational Research Review*, *25*, 23–38. https://doi.org/10.1016/j.edurev.2018.09.003

Dewi, A. A. (2022). Pengembangan Instrumen E-Quiz Pada Pembelajaran Daring Materi Ekosistem Kelas VII SMP. *Edu Sains, Jurnal Pendidikan Sains Dan Matematika*, *10*(2), 199–212. http://quizizz.com.

EuropeanCommission. (2018). *Proposal for a Council recommendation on key competences for lifelong learning* (Issue 2, pp. 1–13).

Fadillah, A. (2016). Pengaruh Pembelajaran Problem Solving Terhadap Kemampuan Berpikir Kreatif Matematis Siswa. *FIBONACCI: Jurnal Pendidikan Matematika Dan Matematika*, *2*(1), 1. https://doi.org/10.24853/fbc.2.1.1-8

Ganapathy, M., Vighnarajah, -, & Kaur, S. (2015). Using Beetham and Sharpe'S (2011) Model in Analysing the Digital Literacy Practices of Esl Students in an Institution of Higher Learning. *Malaysian Journal of Languages and Linguistics (MJLL)*, *4*(1), 31. https://doi.org/10.24200/mjll.vol4iss1pp31-42

Guilford, J. . (1973). *Characteristics of Creativity.*

Handoko, H. (2017). Pembelajaran Matematika Model Savi Berbasis Discovery Strategy Materi Dimensi Tiga Kelas X. Hendri Handoko Tadris Matematika , IAIN Syekh Nurjati Cirebon ABSTRAK penyebabnya adalah karena rendahnya kreativitas siswa dalam belajar . Salah satu alternatif. *Pendidikan Matematika*, *6*(1), 85–95.

Helsper, E. J., Scheider, L. S., van Deursen, A. J., & van Laar, E. (2020). The youth Digital Skills Indicator. *Report on the Conceptualisation and Development of the YSKILLS Digital Skills Measure.*, *January*, 1–121. https://research.utwente.nl/en/publications/the-youth-digital-skills-indicator-report-on-the-conceptualisatio

JISC. (2015). *Developing student's digital literacy*. 1–4.

Kemenkominfo. (2022). Status Literasi Digital di Indonesia 2022. *Kominfo*, *November*, 205–207. https://www.c2es.org/content/renewable-energy/

Kesici, A. (2022). The Effect of Digital Literacy on Creative Thinking Disposition: The Mediating Role of Lifelong Learning Disposition. *Journal of Learning and Teaching in Digital Age*, *7*(2), 260–273. https://doi.org/10.53850/joltida.1063509

Kurnia, A., Sukarmin, & Sunarno, W. (2021). Pola Kemampuan Berpikir Kreatif Ditinjau dari

Gender Siswa Sekolah Menengah dalam Pembelajaran IPA. *Risenologi*, *6*(1b), 6–10. https://doi.org/10.47028/j.risenologi.2021.61b.235

Martzoukou, K., Panayiotakis, I., Herbert, N., Grey, E., & MacDonald, N. (2023). 'Maddie is Online': A Creative Learning Path to Digital Literacy for Young People. *Computers in the Schools*, *0*(0), 1–30. https://doi.org/10.1080/07380569.2023.2276736

Matud, M. P., Rodríguez, C., & Grande, J. (2007). Gender differences in creative thinking. *Personality and Individual Differences*, *43*(5), 1137–1147. https://doi.org/10.1016/j.paid.2007.03.006

Meyers, E. M., Erickson, I., & Small, R. V. (2013). Digital literacy and informal learning environments: An introduction. *Learning, Media and Technology*, *38*(4), 355–367. https://doi.org/10.1080/17439884.2013.783597

Montebello, V. (2016). Digital Literacy in Post-certification Healthcare Education. *Journal of Perspectives in Applied Academic Practice*, *4*(1), 26–35. https://doi.org/10.14297/jpaap.v4i1.185

Muharwati, T. I. (2014). Hubungan Sense Of Humor Dengan Kreativitas Pada Siswa Kelas XI MA Negeri Tlogo-Blitar. *Skripsi , Universitas Islam Negeri Maulana Malik Ibrahim*, 15.

Mulyono, M., Ardiansyah, A. S., Fariz, R., & Khoirunnisa, K. (2020). Prespektif Gender terhadap Kemampuan Berpikir Kreatif Mahasiswa pada Blended Learning berbantu Google Classrooms. *Kreano, Jurnal Matematika Kreatif-Inovatif*, *11*(2), 245–255. https://doi.org/10.15294/kreano.v11i2.26540

Mursidik, E. M., Samsiyah, N., & Rudyanto, H. E. (2015). Creative Thinking Ability in Solving Open-Ended Mathematical Problems Viewed From the Level of Mathematics Ability of Elementary School Students. *PEDAGOGIA: Journal of Education*, *4*(1), 23–33.

Nasrullah, R., Aditya, W., Satya, T. I., Nento, M. N., Hanifah, N., Miftahussururi, M., & Akbari, Q. (2017). Materi Pendukung Literasi Digital. In *Kementerian Pendidikan dan Kebudayaan*. TIM GLN Kemendikbud. http://gln.kemdikbud.go.id/glnsite/wp-content/uploads/2017/10/literasi-DIGITAL.pdf

Rahmawati, N. D. (2020). *Pengembangan dan Penyelesaian Soal Higher Order Thinking Skill (HOTS) Melalui Matematika untuk Siswa Sekolah Dasar*. deepublish.

Reichert, F., Lange, D., & Chow, L. (2021). Educational beliefs matter for classroom instruction: A comparative analysis of teachers' beliefs about the aims of civic education. *Teaching and Teacher Education*, *98*, 103248. https://doi.org/10.1016/j.tate.2020.103248

Rizal, R., Rusdiana, D., Setiawan, W., Siahaan, P., & Susanti, E. (2021). Correlation of digital literacy and creative thinking skills of prospective physics teachers in school physics lecture using LMS3. *AIP Conference Proceeding*.

Sari, D. D., & Rini, T. P. W. (2020). Bimbingan teknis pembelajaran daring menggunakan aplikasi quizizz bagi guru sekolah dasar pada masa pandemi covid-19. *Jurnal Pendidikan Dan Pengabdian Masyarakat*, *3*(4), 213–217.

Sharpe, R., Beetham, H., De Freitas, S., & Conole, G. (2010). *An introduction to rethinking learning for a digital age. Rethinking learning for a digital age: How learners are shaping their own experience*. Routledge.

Silalahi, D. E., Silalahi, D. E., Munthe, E. A. H. B., Wahyuni, M. M. S. S., Jamaludin, R. M., Laela, N. A., & Safii, D. M. M. S. A. R. H. M. (2022). Literasi Digital Dalam Lingkugan Sekolah (Teori, Praktek, dan Penerapannya). In *Padang*.

Siswono, T. . (2004). *Pendekatan Pembelajaran Matematika*. Departemen Pendidikan Nasional Republik Indonesia.

Spires, H., & Bartlett, M. (2012). Digital Literacies and Learning : Designing a Path Forward. *The William & Ida Friday Institute for Educational Innovation*, *June*(5).

Suandito, B. (2018). Persiapan Siswa Kelas Vi Menghadapi Ujian Sekolah Tingkat Sd. *Jurnal Abdimas Musi Charitas*, *2*(1), 22–26. https://doi.org/10.32524/jamc.v2i1.562

Sudjana, N. (2016). *Penilaian Proses Hasil Belajar Mengajar*. PT. Remaja Rosda Karya.

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alphabeta.

Suprapto, S., Zubaidah, S., & Corebima, A. D. (2018). Pengaruh Gender terhadap Keterampilan Berpikir Kreatif Siswa pada Pembelajaran Biologi. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, *3*(3), 325–329. http://journal.um.ac.id/index.php/jptpp/

Suriani, A. I. (2022). Kebijakan Literasi Digital Bagi Pengembangan Karakter Peserta Didik. *JKPD (Jurnal Kajian Pendidikan Dasar)*, *7*(1), 54–64. https://doi.org/10.26618/jkpd.v7i1.7030

Tabieh, A. A., Al-Hileh, M. M., Abu Afifa, H. M., & Abuzagha, H. Y. (2021). The Effect of Using Digital Storytelling on Developing Active Listening and Creative Thinking Skills. *European Journal of Educational Research*, *10*(1), 13–21.

Tatag. (2019). Upaya Meningkatkan Kemampuan Berpikir Kreatif Siswa Melalui Pengajuan Masalah. *Jurnal Pendidikan Matematika Dan Sains*, *2*(1), 1–15.

Yan mei, S., Yan Ju, S., & Adam, Z. (2019). Implementing Quizizz as Game Based Learning in the Arabic Classroom. *European Journal of Social Science Education and Research*, *5*(1), 194–198. https://doi.org/10.2478/ejser-2018-0022

Zher, S. Y., & Chye, C. S. (2017). Developing a digital literacy scale & measuring digital divide using PIAAC data. *4th PIAAC International Conference*, *November*.