

***Investigating the Effects of Differentiated Learning on Primary School Students'  
Literacy Competence: A Multi-Site Comparative Study***

Sri Dewi Nirmala, Universitas Terbuka, Indonesia

The Korean Conference on Education 2024  
Official Conference Proceedings

**Abstract**

Advances in technology and information, which are growing very rapidly, affect all areas of human life, so literacy skills are needed as one of the skills of the 21st century. However, the literacy of primary school students in Indonesia is still in the low category. The results of the 2022 national assessment show that 50% of students have reached the minimum competence limit for reading skills. In 2023, 61.53% have reading skills above the minimum. In general, however, these results still rank students' literacy skills at a low level. This study aims to investigate the influence of differentiated learning activities on the literacy of primary school pupils. The research method uses the quasi-experiment method. The study was conducted in six primary schools representing three cities, namely Bogor, Jakarta, and Yogyakarta. The research tool uses tests, questionnaires, and observation sheets for learning implementation. Quantitative data analyses were carried out to determine the results of literacy tests and the results of surveys on the impact of differentiated learning activities. The results showed: (1) there were differences in the results of the students' reading and writing test for the pretest and posttest; (2) differentiated learning strategies have a positive effect on students' literacy skills, and (3) students' literacy skills increase in the proficient and interpretative categories. Based on these results, it was concluded that differentiated learning strategies in three cities have an impact on improving the literacy of primary school students.

Keywords: Comparative Studies, Differentiated Learning Strategies, Literacy Competence, Primary School Students

**iafor**

The International Academic Forum  
[www.iafor.org](http://www.iafor.org)

## Introduction

Literacy has become one of the key skills that are indispensable in facing challenges in the 21st century. In an era where information is available in large quantities and access to technology is increasingly widespread, the ability to understand, evaluate, and use information effectively is the main foundation for the success of individuals and society as a whole (Olaniran, 2020). In the midst of rapidly changing global dynamics, literacy skills are no longer limited to basic reading and writing skills. However, literacy also includes the ability to understand and analyze information in a variety of formats, including social media, images, and numerical data as technology and socio-cultural developments (Damaianti et al., 2020). Individuals who have good literacy skills tend to be better able to overcome complex challenges, think critically, and make informed decisions intelligently (Elder & Paul, 2020).

The importance of literacy skills in the context of the 21st century is also reflected in how these skills contribute to economic development, environmental sustainability, and social welfare (World Bank, 2018). By being able to read with deep comprehension, individuals can access better educational and employment opportunities, as well as actively participate in public life (Heller et al., (Eds.), 2021). Literacy not only allows individuals to understand and interpret information but also to make intelligent decisions in a variety of life contexts (Long & Magerko, 2020).

Literacy is the ability of students to understand, use, evaluate, and reflect on various types of texts to solve problems and develop individual capacity as Indonesian and world citizens to contribute productively to society (Anwas et al., 2022). Literacy is developed through a critical and creative understanding of knowledge related to the development of the environment and the science that accompanies it so that it is used as a skill which is intact and integrated in attitudes, behaviors and broad insights (Nirmala, 2022).

Reading literacy is one of the critical aspects of education, playing an important role in the development of students' cognitive skills and academic success (Abusamra et al., 2020). The importance of literacy is based on the low literacy skills in Indonesia. Teresia (2021) said that based on national and international studies, the literacy level of students in Indonesia is still relatively low. The results of the National Assessment (AN) through the 2021 Minimum Competency Assessment (AKM) released in 2023 by the Ministry of Education and Culture, Research and Technology (Kemendikbudristek) stated that less than 50% of students have reached the minimum competency limit for reading literacy. Meanwhile, the results of the 2022 AKM released in 2023 stated that 61.53% of students had literacy competencies above the minimum, an increase of 8.11% from the results of the AKM of literacy skills in 2021. Although there is an increase in literacy ability, in general, this ability is still not significant. However, this increase reflects systemic efforts to improve the quality of education, especially in strengthening students' reading literacy skills as a foundation for more complex and sustainable learning (Anggraena et al., 2022).

Based on the low level of student literacy in Indonesia, teachers have an important role in organizing a quality learning process. This is to prepare students for the future, especially in developing literacy skills needed in the 21st century. Teachers are required to create varied and interesting learning so that students can have good literacy skills. Chalkiadaki (2018) states that people who can succeed in the 21st century are those who have good character, competence, and literacy. Therefore, teachers can apply various strategies to create literate

students. One of the learning strategies that can be used to improve students' literacy skills is the differentiated learning strategy.

Differentiated learning strategies are learning strategies that seek to accommodate the diverse characteristics and learning needs of students in the classroom by adjusting content, processes, products, and learning environments. The purpose of this differentiated learning is to ensure that each student can access the learning materials and succeed in their learning endeavors by providing multiple pathways to achieve the same educational goals (Onyishi & Sefotho, 2020). Through the application of appropriately differentiated learning, the quality of learning in the classroom can be improved, including in reading literacy activities (Saleh, 2021). Amid the complexity of diverse learning needs in the classroom, differentiated learning approaches have emerged as a promising strategy to effectively meet the individual needs of students (Charles, 2017).

Differentiated learning, as one of the learning strategies that pay attention to individual differences in learning, has great potential to improve literacy skills, especially reading literacy. The results of the study Puzio et al. (2020), stated that differentiated learning effectively improved reading ability, with a more significant impact on elementary school students than other levels of education. In addition, research Bondie et al. (2019), shows that differentiated learning can increase student motivation and engagement in learning activities. Research Bondie et al. (2019), shows that differentiated learning provides very positive results on students' creativity in writing short stories, especially in obtaining story ideas from personal experiences or others, the ability to structure interesting storylines according to their structure, and the ability to write stories with creative language. In addition, through his research Hasanah (2024) and Adiwijayanti (2020), it is stated that differentiated learning can optimize students' learning interests and talents so that students feel safe and comfortable in following the learning process.

This paper presents the results of research on the use of differentiated learning strategies in improving the literacy skills of elementary school students. The purpose of the research is to explore and analyze the literacy skills of elementary school students through the application of differentiated learning strategies.

## **Method**

The research method used is a quasi-experiment with a *Nonequivalent Control Group Design*, that is, the researcher cannot randomize the research subjects in both the experimental group and the control group (Pozo-Rico et al., 2023). The research was conducted in three cities, namely Bogor, Jakarta, and Yogyakarta which will be carried out in 2023. Each city selected 2 school samples as the experimental class and the control class. Sample determination technique by *purposive sampling*. A total of 173 4th-grade elementary school students were sampled in the study with a distribution of 86 people in the experimental class, and 87 people in the control class.

The research instrument used is a literacy ability test covering the following criteria: (1) Special Intervention Needed; (2) Basics; (3) Speaking; and (Advanced). The literacy ability test is given to students referring to the instrument The literacy ability test is based on the following literacy ability indicators.

Table 1: Literacy Indicators

Competency Level/ Level/	Level of Understanding	Literacy Indicators
Need for Special Intervention (PIK) /Low	Literal Factual	Identifying the settings (place, time, situation) of the text Identify factual information in the text (who, when, where, why, and how)
Basics/ Intermediate	Interpretive/ Inferential	Finding key ideas in the text Interpret the explicit information present in the text.
Competent/ Tall	Interpretive/ Inferential	Interpret the implicit information present in the text Making interpretations of implicit information in everyday application Mention the implicit information present in the text.
Skillful/ Carry on	Applicant	Responding to appropriate situations in daily life based on the description of the text content Make predictions based on the content of the text. Reflecting on new knowledge gained from the text read.

Data analysis based on *the Nonequivalent Control Group Design* design was carried out by comparing the results of the literacy ability test of students in the experimental and control classes through the results of the pretest and posttest with the literacy ability value scale in the range of 1 – 4. Data analysis includes (1) descriptive data analysis to determine the mean, mode, median, and standard deviation; (2) prerequisite tests, namely normality and homogeneity tests; and (3) hypothesis tests through t-tests to prove the comparison of students' literacy skills based on the results of the pretest and posttest in the experimental class and the control class.

## Results and Discussion

In this section, the results of research on the application of differentiated learning strategies and their impact on literacy skills, especially reading literacy of elementary school students, are presented.

The presentation of the *results of the first research*, namely the results of the implementation of learning strategies in elementary schools carried out in Yogyakarta with a sample of 2 schools consisting of an experimental class and a control class. The results of the study between the pretest and the posttest between the control class and the experimental class showed a difference in the average increase in scores from the pretest (64.90) to the posttest (84.66). The score range in the posttest (54) was smaller than that of the pretest (86), indicating a more even distribution of scores in the posttest. The standard deviation of the posttest (12,114) was smaller than that of the pretest (20,136), indicating a smaller variation in the posttest score. The results of the Kolmogorov-Smirnov Normality Test showed that the data were not normally distributed (sig. < 0.05 for both).

Based on the data normality test, it is known that N is more than 30, and the details are 60. The results of normality test used Kolmogorov-Smirnov with pretest statistics of .086 and posttest 0.125, sig pretest  $0.039 < 0.05$ , and posttest  $0.000 < 0.05$ . Because the sig value is less than 0.05, the data is distributed abnormally. Therefore, the literacy test data test was continued with a non-parametric test, the Wilcoxon type. The results of the Hypothesis Test (Wilcoxon) showed that 45 out of 60 students experienced an increase in grades (positive ranks).

Based on these results, differentiated learning activities have a significant positive impact on improving the literacy of elementary school students. The majority of students (81.58%) experienced an increase in grades after participating in differentiated learning. The average increase in scores of 19.76 points (from 64.90 to 84.66) shows the effectiveness of this learning method. This study provides strong evidence that differentiated learning is effective in improving the literacy of elementary school students. The average increase in scores of 19.76 points (30.45%) shows a substantial impact. The decrease in the value range and standard deviation indicates that differentiated learning not only increases the average score but also narrows the gap in literacy skills between students. Through the results of 81.58% of students experiencing an increase in scores, it can be concluded that differentiated learning provides benefits to the majority of students. The increase in student literacy is statistically significant, not a coincidence. These results support the theory that learning tailored to student's interests and needs can improve learning outcomes, especially in terms of literacy. This study provides an empirical basis to recommend the application of differentiated learning in the elementary school curriculum, especially to improve literacy skills.

The results of the study show that differentiated learning is effective in significantly improving student literacy after being implemented. This is in line with findings Valiandes (2015), which state that differentiated learning significantly improves students' reading achievement. According to the review Smale-Jacobse et al. (2019), differentiated learning generally has a positive impact on student achievement, supporting the results of the study which showed an average increase in scores of 19.76 points. The finding that 81.58% of students experienced an increase in grades was in line with the study Suprayogi et al. (2017), which concluded that well-implemented differentiated learning can benefit most students in the classroom accordingly with their abilities, especially in improving the reading comprehension ability of elementary school students, as also found by Xu et al. (2020).

The results of *the second* research were conducted in Jakarta involving 2 schools as an experimental class and a control class. The results of the study show that the application of differentiated learning is effective in improving students' literacy skills. This can be seen from the increase in the average score between the pretest and posttest in this aspect. The average pretest result reached 68.85 while the posttest: had an average of 83.54, so there was an increase of 14.69 points. There was an increase of 14.69 points in students' literacy skills. This shows that differentiated learning has succeeded in improving the skills of reading, writing, and comprehending texts in students.

Furthermore, based on these results, a t-test for independent samples, also known as the Independent Sample t-test, is a parametric statistical method applied to two unrelated data sets. The main purpose of this test is to detect whether there is a significant change in the value of a sample before and after certain treatments. In other words, this test helps researchers evaluate the effectiveness of an intervention or treatment of the variables studied.

The results of the t-test have obtained the average score of literacy ability in both the experimental and control classes.

The analysis of the data shows a striking difference between the experimental class and the control class. The experimental class, which implements differentiated learning methods, achieved an average score of 83.54. This figure is substantially higher than that of the control class that uses conventional learning approaches, where the average score is only 75.33. This difference indicates that there is a significant impact of the application of differentiated learning on the literacy level of students. A comparison of the results before and after this learning intervention showed a significant improvement.

These findings confirm that differentiated learning methods have a positive and meaningful influence on improving students' literacy skills (Ismajli & Imami-Morina, 2018; Şentürk & Sari, 2018). In other words, this learning approach has proven to be effective in encouraging the development of literacy skills of students who are the subject of research. Differentiated learning showed a significant positive influence on student literacy (Puzio et al., 2020; Magableh & Abdullah, 2020). These results support the use of more adaptive and personalized learning methods to improve students' literacy skills.

The results of *the third* research are based on research carried out in Bogor using 2 schools as experimental classes and control classes. Based on the results of data analysis from the implementation of differentiated learning strategies, show a significant variation in students' abilities related to literacy. The highest score achieved was 98.00, while the lowest score was recorded at 30.00, resulting in a fairly wide range of values of 68.00. Further statistical calculations revealed that the average score of the participants was 71.9, with a standard deviation of 16.25518. These figures reflect a fairly diverse distribution of results among participants.

Statistical analysis using paired t-tests yielded significant findings. The significance value (2-tailed) obtained was 0.001, which is much smaller than the significance threshold of 0.05. The interpretation of these results leads to the rejection of the null hypothesis ( $H_0$ ) and the acceptance of the alternative hypothesis ( $H_a$ ). The conclusion that can be drawn from these results is that there is a substantial statistical difference between pre-test and post-test scores. These findings indicate that the application of differentiated learning strategies has a real and positive impact on students' reading literacy skills. In other words, these statistical data provide strong evidence that differentiated learning strategies are effective in improving students' reading literacy skills. Measurable changes between before and after the intervention show that this strategy has significant potential in advancing students' literacy skills.

Based on the results of research from three cities (Yogyakarta, Jakarta, and Bogor), it can be concluded that differentiated learning strategies are effective in improving the literacy skills of elementary school students. These findings have important implications for educational practices and curriculum development at the primary school level. Differentiated learning has a positive effect in accommodating the various learning needs of students (Tomlinson & Jarvis, 2014), has proven to be able to increase literacy evenly, and can improve students' academic outcomes, including literacy, by providing challenges that follow the abilities of each student (VanTassel-Baska et al., 2021). The results of this study support the use of more adaptive and personalized learning methods to improve student's literacy skills through

student involvement based on their needs with a variety of activities to understand the material based on student needs (Vantieghem et al., 2020; Widiastuti et al., 2023).

Overall, this study provides strong empirical evidence to recommend the implementation of differentiated learning in the primary school curriculum to improve student literacy (Indrawatiningsih et al., 2024; Alsalhi et al., 2021). This approach is not only effective but also provides significant benefits for the majority of students, supporting more equitable and optimal literacy development. Students' literacy abilities are measured based on the results of the pretest and posttest analyzed based on criteria and indicators according to Table 2, namely: (1) Need for Special Intervention with an average score of less than 50; (2) The basis of the average score is between 50 – 70; (3) Average score between 70 – 90; and (4) Proficient with an average score above 90.

Research in Yogyakarta shows that the implementation of differentiated learning strategies has a significant positive impact on improving students' literacy skills. Before the intervention, the average score of the pretest was 64.90, which increased to 84.66 on the posttest. The results of the pretest, with an average score of 64.90, many students are in the basic category and need special intervention. After the implementation of differentiated learning, the average increased to 84.66, placing many students in the capable category, with some possible proficient categories. The decrease in standard deviation from 20,136 on the pretest to 12,114 on the posttest shows that differentiated learning not only increases the average score but also reduces the variation in scores among students, indicating a more even increase.

The results of the study in Jakarta showed an increase in the average literacy score from 68.85 (pretest) to 83.54 (posttest) in the experimental class. In the pretest results, the majority of students were in the basic category and some in the proficient category. After intervention through differentiated learning strategies, many students rose to the category of being proficient, with some achieving the proficient category.

Furthermore, the results of the study in Bogor showed a significant variation in literacy skills with the highest score of 98 and the lowest score of 30. The average score is 71.9, with a standard deviation of 16.25518. Based on an average score of 71.9, many students are in the capable category. The highest score of 98 indicates some students achieved the proficient category, while the lowest score of 30 indicates some students still need special intervention. Relatively high standard deviations indicate large variations in literacy skills among students, but differentiated learning strategies help raise the average literacy ability to the level of proficiency criteria.

The results of research from these three cities show that differentiated learning strategies are effective in improving students' literacy skills. Through this strategy, the majority of students managed to achieve the proficient and proficient categories, while the variation in literacy skills decreased. This confirms that the differentiated learning that has been implemented can produce the following: (1) improving students' literacy skills from the category of "Needs Special Intervention" to "Basic" and "Competent". By paying special attention to students in need, differentiated learning can help them achieve better outcomes in terms of content, processes, products/outcomes, and learning environment (Marlina et al., 2023); (2) able to strengthen the literacy skills of students who have reached the "Basic" category towards "Proficient" and "Advanced". Students who already have a good foundation get challenges that match their abilities, allowing for an upgrade to a higher level of literacy

(Indrawatiningsih et al., 2024; Hernández-Chérrez et al., 2019) and (3) facilitating students through the provision of a more equitable learning environment by facilitating learning according to student needs. Through the application of learning according to student needs, differentiated learning ensures that all students have a fair opportunity to improve their literacy skills (Drolet, 2021).

## **Conclusion**

Based on the results of the research on the implementation of differentiated learning strategies carried out in three cities, namely Yogyakarta, Bogor, and Jakarta, it can be concluded that differentiated learning strategies are effective in improving the literacy skills of elementary school students. The improvement of students' literacy skills is the impact of the implementation of differentiated learning strategies in grade IV elementary school students. The application of differentiated learning strategies has an impact on the average score of students' literacy skills. There were significant differences between the experimental and control classes in each research location which showed that differentiated learning strategies were able to improve students' literacy skills. Differentiated learning strategies not only improve overall learning outcomes but also reduce the ability gap between students. This is supported by the implementation of differentiated learning strategies that can adjust learning based on student learning needs in terms of content, processes, products/materials, and learning environments. These findings have important implications for educational practices and curriculum development at the primary school level. Differentiated learning, which accommodates the diverse learning needs of students, can increase literacy evenly and substantially. Overall, this study provides strong empirical evidence to recommend the implementation of differentiated learning in the elementary school curriculum to improve students' literacy skills. Differentiated learning strategies are not only effective in improving students' literacy skills but also provide significant benefits for the majority of students, as well as support more equitable and optimal literacy development.

## **Acknowledgements**

This article was written by Dr. Sri Dewi Nirmala, M.Pd., based on the results of her research titled "Exploration of the Impact of Differentiated Learning Activities on Literacy and Numeracy of Elementary School Students," which was funded by the Research and Community Service Institute (LPPM) of Universitas Terbuka through the 2023 Research and Community Service Grant Program. She also extends her gratitude to the Human Resources Development Center (PSDM) of Universitas Terbuka for enabling her participation in The Korean Conference on Education.



## References

- Abusamra, V., Difalcis, M., Martínez, G., Low, D. M., & Formoso, J. (2020). Cognitive skills involved in reading comprehension of adolescents with low educational opportunities. *Languages*, 5(3), 34.
- Adiwijayanti, A. (2020). Pembelajaran Diferensiasi Mengoptimalkan Minat Dan Bakat Anak. PGP-1-Kabupaten Kubu Raya-1.1-Aksi Nyata. Diunduh 24 Juni 2023, dari situs Word Wide Web:<https://ayoguruberbagi.kemdikbud.go.id/artikel/pembelajaran-diferensiasi-mengoptimalkan-minat-dan-bakat-anak/>
- Alsalmi, N. R., Abdelrahman, R., Abdelkader, A. F., Al-Yatim, S. S., Habboush, M., & Al Qawasm, A. (2021). Impact of using the differentiated instruction (DI) strategy on student achievement in an intermediate stage science course. *International Journal of Emerging Technologies in Learning (Online)*, 16(11), 25.
- Anggraena, Y., Felicia, N., Eprijum, D., Pratiwi, I., Utama, B., Alhapip, L., & Widiawati, D. (2022). Kajian akademik kurikulum untuk pemulihan pembelajaran.
- Anwas, E. O. M., Afriansyah, A., Iftitah, K. N., Firdaus, W., Sugiarti, Y., Sopandi, E., & Hediana, D. (2022). Students' Literacy Skills and Quality of Textbooks in Indonesian Elementary Schools. *International Journal of Language Education*, 6(3), 233-244.
- Bondie, R. S., Dahnke, C., & Zusho, A. (2019). How does changing “one-size-fits-all” to differentiated instruction affect teaching?. *Review of Research in Education*, 43(1), 336-362.
- Chalkiadaki, A. (2018). A systematic literature review of 21st century skills and competencies in primary education. *International Journal of Instruction*, 11(3), 1-16.
- Charles, L. F. (2017). Differentiated Instruction, Teachers' Perceptions, and Lower Third Students' Achievement: A Qualitative Study (Doctoral dissertation, Northcentral University).
- Damaianti, V. S., Abidin, Y., & Rahma, R. (2020). Higher order thinking skills-based reading literacy assessment instrument: An Indonesian context. *Indonesian Journal of Applied Linguistics*, 10(2), 513-525.
- Drolet, E. (2021). Creating Collaborative Inquiry Based Teams to Provide Equitable Learning Experiences Through Differentiated Instruction (Doctoral dissertation, Northeastern University).
- Elder, L., & Paul, R. (2020). Critical thinking: Tools for taking charge of your learning and your life. Foundation for Critical Thinking.
- Hasanah, O. N. (2024). Penerapan Pembelajaran Berdiferensiasi dalam Kurikulum Merdeka pada Mata Pelajaran IPAS di Sekolah Dasar. *ELSE (Elementary School Education Journal): Jurnal Pendidikan dan Pembelajaran Sekolah Dasar*, 8(1).

- Heller, R., Wolfe, R. E., & Steinberg, A. (Eds.). (2021). Rethinking readiness: Deeper learning for college, work, and life. Harvard Education Press.
- Hernández-Chérrez, E., Galora-Moya, N. P., & Hidalgo-Camacho, C. S. (2019). Differentiated instruction on reading skills at higher Education Level. *CIENCIAMATRIA*, 6(10), 48-65.
- Indrawatiningsih, N., Qomariyah, S., Nubita, A. R., & Muarofah, L. (2024). Effectiveness of Differentiated Learning in Improving Literacy and Numeracy of Primary School Students. *Asian Journal of Education and Social Studies*, 50(5), 8-17.
- Ismajli, H., & Imami-Morina, I. (2018). Differentiated instruction: Understanding and applying interactive strategies to meet the needs of all the students. *International journal of Instruction*, 11(3), 207-218.
- Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. In *Proceedings of the 2020 CHI conference on human factors in computing systems* (pp. 1-16).
- Magableh, I. S. I., & Abdullah, A. (2020). Effectiveness of Differentiated Instruction on Primary School Students' English Reading Comprehension Achievement. *International Journal of Learning, Teaching and Educational Research*, 19(3), 20-35.
- Marlina, M., Kusumastuti, G., & Ediyanto, E. (2023). Differentiated Learning Assessment Model to Improve Involvement of Special Needs Students in Inclusive Schools. *International Journal of Instruction*, 16(4).
- Nirmala, S. D. (2022). Problematika rendahnya kemampuan literasi siswa di sekolah dasar. *Primary: Jurnal Pendidikan Guru Sekolah Dasar*, 11(2), 393-402.
- Olaniran, S. O. (2020). Literacy library and the functional literacy skills of the 21st century adult learners. *Library Philosophy and Practice (e-journal)*, 3573.
- Onyishi, C. N., & Sefotho, M. M. (2020). Teachers' Perspectives on the Use of Differentiated Instruction in Inclusive Classrooms: Implication for Teacher Education. *International Journal of Higher Education*, 9(6), 136-150.
- Pozo-Rico, T., Poveda, R., Gutiérrez-Fresneda, R., Castejón, J. L., & Gilar-Corbi, R. (2023). Revamping teacher training for challenging times: Teachers' well-being, resilience, emotional intelligence, and innovative methodologies as key teaching competencies. *Psychology research and behavior management*, 1-18.
- Puzio, K., Colby, G. T., & Algeo-Nichols, D. (2020). Differentiated literacy instruction: Boondoggle or best practice?. *Review of educational Research*, 90(4), 459-498.
- Saleh, A. H. A. E. (2021). The effectiveness of differentiated instruction in improving Bahraini EFL secondary school students in reading comprehension skills. *REiLA: Journal of Research and Innovation in Language*, 3(2), 135-145.

- Şentürk, C., & Sari, H. (2018). Investigation of the contribution of differentiated instruction into science literacy. *Qualitative Research in Education*, 7(2), 197-237.
- Smale-Jacobse, A. E., Meijer, A., Helms-Lorenz, M., & Maulana, R. (2019). Differentiated instruction in secondary education: A systematic review of research evidence. *Frontiers in psychology*, 10, 2366.
- Suprayogi, M. N., Valcke, M., & Godwin, R. (2017). Teachers and their implementation of differentiated instruction in the classroom. *Teaching and teacher education*, 67, 291-301.
- Susanto, M. A., Sandi, E. A., & Shofiani, A. K. A. (2022). Pembelajaran berdiferensiasi dan kreativitas menulis cerpen peserta didik program sekolah penggerak angkatan pertama jenjang SMP Kota Probolinggo. *GHANCARAN: Jurnal Pendidikan Bahasa dan Sastra Indonesia*, 181-190.
- Teresia, W. (2021). Asesmen Nasional 2021. Guepedia.
- Tomlinson, C. A., & Jarvis, J. M. (2014). Case studies of success: Supporting academic success for students with high potential from ethnic minority and economically disadvantaged backgrounds. *Journal for the Education of the Gifted*, 37(3), 191-219.
- Valiandes, S. (2015). Evaluating the impact of differentiated instruction on literacy and reading in mixed ability classrooms: Quality and equity dimensions of education effectiveness. *Studies in Educational Evaluation*, 45, 17-26.
- VanTassel-Baska, J., Hubbard, G. F., & Robbins, J. I. (2021). Differentiation of instruction for gifted learners: Collated evaluative studies of teacher classroom practices. *Handbook of giftedness and talent development in the Asia-Pacific*, 945-979.
- Vantieghem, W., Roose, I., Gheysens, E., Griful-Freixenet, J., Keppens, K., Vanderlinde, R., ... & Van Avermaet, P. (2020). Professional vision of inclusive classrooms: A validation of teachers' reasoning on differentiated instruction and teacher-student interactions. *Studies in Educational Evaluation*, 67, 100912.
- Widiastuti, Y., Rani, A., & Wahyuni, S. (2023). Implementasi dan asesmen pembelajaran berdiferensiasi pada materi anekdot untuk siswa SMA. *Semantik*, 12(1), 61-74.
- World Bank. (2018). *World development report 2019: The changing nature of work*. The World Bank.
- Xu, B., Chen, N. S., & Chen, G. (2020). Effects of teacher role on student engagement in WeChat-Based online discussion learning. *Computers & Education*, 157, 103956.