

THE IMPACT OF PARENTING AND SELF-CONFIDENCE ON ELEMENTARY SCHOOL STUDENTS' MATHEMATICS LEARNING OUTCOMES DURING THE COVID-19 PANDEMIC

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ABSTRACT:

In this research, I performed an investigation to 1) identify and analyze the partial impact of parenting on elementary school students' learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, 2) identify and analyze the partial impact of self-confidence on elementary school students' learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, 3) identify and analyze the simultaneous impact of parenting and self-confidence on elementary school students' learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. The research method was descriptive correlational. Using the method, I interpreted respondents' responses to the research questionnaires. The responses were then made into tabulation as primary data to be analyzed using double linear regression. The quantitative research method was one of the research methods whose specifications were systematic, planned, and clearly structured. The population was made up of 281 elementary

schools in Sigi, and the sample was 10% of the total population so I acquired 28 schools. The results demonstrated that (1) parenting had a partial significant effect on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, (2) self-confidence had a partial significant effect on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, (3) parenting and self-confidence had a simultaneous significant effect on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, and (4) parenting through self-confidence had an effect on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic.

Keywords: Parenting, Self-confidence, Mathematics Learning Outcomes

INTRODUCTION:

The global population has been being threatened by the advent of the coronavirus (COVID-19). On May 26th, 2020, the virus had

infected 5,623,503 people and 213 countries worldwide and caused 348,760 death tolls, but 2,393,551 patients had been recovered (Worldometers.info, 2020). In Indonesia, the spread of the virus was first identified on March 2nd, 2020, declared by President Joko Widodo (Nuraini, 2020) and currently had infected 23,165 people and brought about 1,418 death tolls, and 5,877 people had fortunately recovered (Covid19.go.id, 2020).

The government has made different efforts to break the spread chain of the virus. Among the efforts is the issuance of Government Regulation Number 21/2020 concerning Large-Scale Social Restrictions in the Context of Accelerating the Handling of COVID-19. And yet, the regulation breeds the consequence of restricted activities, including educational activities at schools. The massive spread of the pandemic temporarily deactivates face-to-face teaching-learning activities to hinder and address the spread (Syahmuntag, 2020:1). Teaching-learning activities, which were offline, now should be online using different learning platforms and social media as supporting tools (Hasibuan et al., 2020:1). Learn-from-Home activities are officially declared through Ministry of Education and Culture Circular Letter Number 36962/MPK.A/ HK/2020 concerning Online Learning and Work-for-Home to prevent the spread of Coronavirus Disease (COVID-19).

According to Moore, Dickson-Deane, and Galyen (in Sadikin and Hamidah, 2020-2015-2016), online learning employs the Internet network with its accessibility, connectivity, flexibility, and abilities to bring on different learning interactions. The advent of the COVID-19 alters learning processes, which were face-to-face, into online from home (Yunitasari and Hanifah, 2020:233). In this unkempt condition, teachers should fulfill their responsibilities as educators and ensure that students can access both information and knowledge. Similarly,

parents are now having to deal with double roles as a result of online learning from home. Besides being educators, they have to assist their children when they are learning from home. Within this condition, accordingly, parents are carrying out double roles in educating. Parents' participation in online learning is undoubtedly requisite. They act as teachers both at schools and at home. They should engage in their children's activities, from making their assignments, reporting the assignments, to doing tests. They have to also engage in the mathematics subject, one of the daunting subjects for children because of the difficulty to understand.

During the COVID-19 pandemic, students' affective skills become salient as they can affect their learning outcomes and self-confidence. Meanwhile, the external factor which influences students' learning outcomes is parenting. As confirmed by my preliminary research at several elementary schools in Sigi Biromaru as the research location, during the COVID-19 pandemic, students acquired lower mathematics learning outcomes if compared to that before the pandemic. This condition is by virtue of online learning processes for over two years and no face-to-face meeting between teachers and students. In addition, it causes poor learning processes, especially for certain subjects, such as mathematics, which is more effective if it is delivered through a direct interaction between teachers and students at schools.

Besides due to the internet network and students' domiciles, an ineffective online mathematics learning process during the COVID-19 pandemic is also due to parenting in relation to students' education and self-confidence to participate in online learning processes from home.

RESEARCH METHODS:

Pertaining to research objectives, the research design was descriptive correlational, which was aimed to describe the characteristics of a phenomenon occurring during the research and to observe the causes of a symptom.

In this research, I employed the descriptive correlational research design to interpret respondents' responses to research questionnaires. The responses were tabulated and served as primary data to be analyzed using double linear regression. These steps were to study the impact of parenting and self-confidence on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. The quantitative research method was one of the research types with systematic, planned, structured specifications.

The quantitative research method was contingent upon the positivism paradigm and exerted to analyze a certain population or sample (Sugiyono, 2012:88). The random sampling technique was conducted. Data were collected using research instruments. The data analysis was quantitative/statistic and aimed to test hypotheses.

RESULTS AND DISCUSSION:

1) F-test (Simultaneous Test):

The F-test (simultaneous test) was executed to examine if independent variables had a simultaneous significant impact on the dependent variable (Priyatno, 2012). In this research, the test was performed to identify if parenting (X_1) and self-confidence (X_2) had a simultaneous significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. In the test, I used a 0.05 significance level.

Based on Table 4.7, $F_{count} = 194.776$ at a significance level $\alpha = 0.05$ or $Sig-F = 0.000 < \alpha 0.05$. That being so, independent variables had

a simultaneous significant impact on the dependent one. Therefore, the hypothesis which stated that parenting and self-confidence had a simultaneous significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, building on the F-test result, was accepted.

2) T-test (Partial Test):

The t-test (partial test) was undertaken to examine if independent variables had a partial significant impact on the dependent variable (Priyatno, 2012). To investigate if the parenting (X_1) and self-independence (X_2) had a partial significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, a two-tier method at a significance level $\alpha/2 = 0.05$ was exerted. As the t-test was partial, the test was separately perpetrated and each independent variable had a hypothesis. However, the test criteria were the same. The results of the t-test (partial test) are as follows.

a. Parenting Variable (X_1):

Through the t-test, the t-count of the parenting variable (X_1) was 5.430 at $Sig-t$ of $0.000 < \alpha 0.05$. This presented a partial positive significant impact of the parenting variable (X_1) on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. Thus, the hypothesis which stated that parenting had a partial significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, building on the t-test result, was accepted.

Furthermore, the coefficient of partial determination of the parenting variable (X_1) was 0.400. This shows that the parenting variable (X_1) had a partial significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19

pandemic by 0.400 or 40.0% under the assumption that another independent variable was constant.

b. Self-independence Variable (X_2):

Predicated on the t-test, the t-count of the self-independence variable (X_2) was 5.612 at Sig-t of $0.000 < \alpha 0.05$. This presented a partial positive significant impact of the self-independence variable (X_2) on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. Thus, the hypothesis which stated that self-independence had a partial significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, building on the t-test result, was accepted.

Furthermore, the coefficient of partial determination of the self-independence variable (X_2) was 0.413. This shows that the self-independence variable (X_2) had a partial significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic by 0.413 or 41.3% under the assumption that another independent variable was constant.

3) Moderator Variable Test:

The moderator variable test was undertaken to examine if parenting through self-independence ($X_{1.2}$) had an indirect impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. Predicated on the moderator variable test, the t-count of the parenting (X_1) through self-independence variable (X_2) was 19.979 at Sig-t of $0.000 < \alpha 0.05$. This presented a positive significant impact of the parenting through self-independence variables ($X_{1.2}$) on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. Thus, the hypothesis which stated that parenting through self-independence had an impact on students'

mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic, building on the t-test result, was accepted.

A. Discussion:

1. Parenting and Self-independence' Impact on Students' Mathematics Learning Outcomes at Elementary Schools in Sigi during the COVID-19 Pandemic:

The results showcased that the parenting and self-independence variables as the predictor variables had a simultaneous positive significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. The impact was attested to by the empirical research results suggesting a potent relationship between the parenting and self-independence variables on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic.

This research also shows off that the indicator "Normal ambition" and the statement item "I believe that online mathematics learning will not disappoint me" played a salient role in students' self-independence at elementary schools in Sigi during the COVID-19 pandemic.

However, the results are not in correspondence with Tisngati and Meifani (2014), that there was no simultaneous effect of self-confidence and parenting pertinent to the number theory course on mathematics learning outcomes.

2. Parenting's Impact on Students' Mathematics Learning Outcomes at Elementary Schools in Sigi during the COVID-19 Pandemic:

The results proved a positive significant impact of parenting on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. This signaled that parenting patterns, which were composed

of the sub-variables democratic parenting, authoritarian parenting, permissive parenting, and neglectful parenting affected students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. Parenting was measured from students' (respondents) perceptions of research indicators in the sub-variables democratic parenting pattern, authoritarian parenting pattern, permissive parenting pattern, and neglectful parenting pattern.

The sub-variable democratic parenting indicators which were perceived as benchmarks to assess the impact of parenting on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic were good communication between parents and children, appreciation and decent punishments to children, and balanced-given rights and responsibilities to children. This research revealed the reality that research respondents (students) perceived democratic parenting well. Their parents built good communication with them, significantly and positively affecting their mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. This exhibits that from research respondents' perception, online mathematics learning processes from home would not lead to disappointment for parents' supports in the form of good communication.

The result is in line with Baumrind (in Rusilaanti, 2012:164-165), that there were four types of parenting, i.e., democratic parenting, authoritarian parenting, permissive parenting, and neglectful parenting. In this research, I figured out that parenting, comprising of the sub-variables democratic parenting, authoritarian parenting, permissive parenting, and neglectful parenting had a significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic.

Besides, the result keeps pace with Kusumawati et al. (2017), that parenting directly impacted students' learning outcomes at SD Kecamatan Badungan by 51%. It is also on pace with Handayani (2017), that parents' attention had a direct positive impact on students' learning outcomes at SDN Wilayah Binaan Kelurahan Duren Sawit Jakarta Timur. Nevertheless, it is not pursuant to Achdiyati (2020), that parenting had no significant effect on eleventh graders' mathematics learning achievement at Sekolah Menengah Kejuruan (SMK) Harapan Bangsa Depok.

3. Self-confidence's Impact on Students' Mathematics Learning Outcomes at Elementary Schools in Sigi during the COVID-19 Pandemic:

The results proved a positive significant impact of self-confidence on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. This signaled that parenting, which was composed of the indicators of normal ambition, self-dependence, optimism, security, tolerance, and self-reliance affected students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. Self-confidence was measured from question items developed based on the indicators normal ambition, self-dependence, optimism, security, tolerance, and self-reliance.

The normal ambition indicator which was perceived as a benchmark to assess students' self-confidence at elementary schools in Sigi during the COVID-19 pandemic was implied in the statement items 'I did my mathematics assignments and depended on my competency during online mathematics learning processes from home', 'I loved meeting my classmates by Zoom, and I was not afraid of objections when learning mathematics from home online', 'I believe that online mathematics learning from home will not

disappoint me', and 'I am not afraid of participating in mathematics learning from home online'.

This research disclosed the reality that research respondents (students) perceived that self-confidence in terms of normal ambition played the most seminal role in students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. Students with high self-confidence would not likely be disappointed with online mathematics learning from home. This high self-confidence was also advocated by teachers' competency to teach and built an interplay with students through Zoom during online learning from home.

The results were aligned with Lauster in Ardari (2016:55-56), that self-confidence was an attitude of believing in self-ability to carry out actions to achieve a certain goal. Indicators of self-confidence were normal ambition, self-dependence, optimism, security, tolerance, and self-reliance. The results were analogous with this theory, that self-confidence, whose indicators were normal ambition, self-dependence, optimism, security, tolerance, and self-reliance had a significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic.

The results were commensurate with Tisngati and Meifiani (2014) as well, that self-confidence in the theory of number subject affected mathematics learning achievements. They were congruent with Amri (2018) too, that self-confidence in Scout extracurricular activities satisfied students' mathematics learning achievements at SMA Negeri 6 Kota Bengkulu. The variable contributed to the dependent variable by 94.1%, whereas 5.9% others were impacted by other factors unresearched in that study.

4. Impact of Parenting through Self-confidence on Students' Mathematics Learning Outcomes at Elementary Schools in Sigi during the COVID-19 Pandemic

Building on the results of the moderator variable analysis, parenting through self-confidence influenced students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic by 0.751 or 75.1%. As suggested by the percentage, the indirect impact of parenting was stronger than the direct one. It also suggested a positive impact of parenting on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic through self-confidence. Accordingly, the better the parenting pattern applied, the higher the students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic. It was congruent with Slameto (2010), that learning outcomes were affected by internal factors, e.g., psychological factor (self-confidence), and external factors, e.g., family (parenting).

CONCLUSION:

Predicated on the results and discussion, I could draw the following conclusions.

1. Parenting had a partial significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic.
2. Self-confidence had a partial significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic.
3. Parenting and self-confidence had a simultaneous significant impact on students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic.

4. Parenting through self-confidence impacted students' mathematics learning outcomes at elementary schools in Sigi during the COVID-19 pandemic.

Orang Tua pada Mata Kuliah Teori Bilangan terhadap Prestasi Belajar. Jurnal Derivat Volume 1 No. 2 December 2014 (ISSN: 2407-3792).

11) Yunitasari and Hanifah, 2020. Pembelajaran Daring dan Luring pada Masa Pandemi Covid-19. Gagasan Pendidikan Indonesia, 1(2), 49-59.

REFERENCES:

- 1) Achdiyati, M. 2020. Pengaruh Pola Asuh Orang Tua Terhadap Prestasi Belajar Matematika Siswa. Prosiding Seminar Nasional dan Diskusi Panel Pendidikan Matematika Universitas Indraprasta PGRI Jakarta.
- 2) Ardari, C. S. 2016. Pengaruh Kepercayaan Diri Terhadap Intensitas Penggunaan Media Sosial pada Remaja Awal. Yogyakarta: Universitas Sanata Darma.
- 3) Covid19.go.id. 2020. Data Sebaran. Covid19.Go.Id. <https://covid19.go.id/>.
- 4) Government Regulation Number 21/2020 concerning Large-Scale Social Restrictions in the Context of Accelerating the Handling of COVID-19.
- 5) Handayani, D. 2017. Pengaruh Perhatian Orang Tua dan Konsep Diri Siswa Terhadap Hasil Belajar Matematika Siswa. JURNAL PENDIDIKAN DASAR Vol. 8, Ed. 1, May 2017.
- 6) Prayitno, D. 2009. SPSS Handbook: Analisis Data, Olah Data, dan Penyelesaian Kasus-kasus Statistik. Yogyakarta: Mediakom, 2016.
- 7) Sadikin, A., Hamidah, A., Pinang, K., Jl, M., Ma, J., Km, B., Indah, M., Jaluko, K., Kode, K. M., and Indonesia, P. 2020. Pembelajaran Daring di Tengah Wabah Covid-19 (Online Learning in the Middle of the Covid-19 Pandemic). 6(1), 214-224.
- 8) Slameto. 2010. Belajar dan Faktor-faktor yang Mempengaruhinya, V printing. Jakarta: PT Rineka Cipta.
- 9) Sugiyono. 2012b. Statistika untuk Penelitian. Bandung: CV. Alfabeta.
- 10) Tisngati, U. and Meifiani, N.I. 2014. Pengaruh Kepercayaan Diri dan Pola Asuh