# Strategies for Improving Education Quality

Simon Sili Sabon, National Research and Innovation Agency, Indonesia Nur Listiawati, National Research and Innovation Agency, Indonesia Siswantari, National Research and Innovation Agency, Indonesia Yendri Wirda, National Research and Innovation Agency, Indonesia

> The Barcelona Conference on Education 2023 Official Conference Proceeding

#### **Abstract**

Many factors influence the quality of education, but teachers are the most dominant factor. The problem in education development in Indonesia is that teachers' competencies have not reached the expected competency standards. This has an impact on the low quality of education in Indonesia as seen from the low achievements of Indonesian children at the global level. The low quality of teachers is strongly suspected to be due to the low quality of prospective students admitted to Teacher's Colleges. In addition, Teacher's Colleges do not meet the standards set to produce quality graduates. This study aims to (i) analyze the quality of prospective students admitted to Teacher's Colleges, and (ii) evaluate the fulfilment of national standards for teacher education by Teacher's Colleges. The method used in this study was mixed quantitative and qualitative. Data collection was conducted through Focus Group Discussions with the heads of Elementary School Teacher Education and Professional Teacher Education study programs. Data collection from students was carried out by distributing questionnaires in the form of google forms that were filled in online. In addition, secondary data on the accreditation of Teacher's Colleges was also collected. Data were analyzed using descriptive statistics. The results showed that some prospective teacher students are neither those who aspire to become teachers nor are they the best graduates of high school. Another finding of the study is that most Teacher's Colleges do not meet the national standards set for conducting teacher education.

Keywords: Quality of Education, Prospective Teacher Students, Teacher's College

iafor

The International Academic Forum www.iafor.org

#### Introduction

Many factors influence the quality of education, but the primary determinant of students' academic success is the caliber of their educators(Adel, 2019). The issues in educational development in Indonesia are primarily related to the low competence of teachers. This is evident in the results of the teacher competency test conducted by the government in 2015. The test covered two competency students': pedagogical and professional. The data analysis of the test results showed that the average score for teachers on this test was only 53.02 out of 100 (Directorate General of Teachers and Education Personnel, 2015). Bhakti and Maryani's (2017) study in 2016 focused on the low pedagogical competence of teachers as a result of the competency test. They placed the Teacher's Colleges (TCs) as the institution most responsible for the low competency of teachers because teachers are products of TCs. Therefore, TCs are more responsible for this situation.

The low competence of teachers is strongly suspected to have led to the low quality of education in Indonesia, as indicated by the low achievement of Indonesian students on a global scale. According to the Program for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS) assessments, Indonesian students' proficiency in mathematics continues to be at a lower level (Dwita & Retnawati, 2022). Another study on the PISA, which assesses reading, mathematics, and natural science proficiency, reveals that Indonesia ranks 10th among the bottom performers out of 65 countries (Zaini, 2018).

Based on this data and information, the question arises as to why the quality, particularly the competence of teachers, is so low. The low quality of teachers is believed to originate from the low quality of prospective teacher students accepted into TCs. In addition, TCs are suspected of not meeting the standards set for producing quality graduates. Based on these two hypotheses, two objectives of this study are formulated as follows. The first objective is to analyze the quality of prospective students accepted into TCs, and the second objective is to evaluate the fulfilment of national teacher education standards by TCs.

Many studies have examined the factors influencing the quality of education, but there hasn't been specific research on the quality of input teacher candidates who study in TCs to become professional teachers. The quality of inputs aspiring to become teachers may be excellent, but emphasizing input quality alone is not sufficient. They must also study in good or excellent TCs to become professional teachers. Therefore, this research is of great importance as it can offer policy strategies to improve the quality of education in the future.

# **Determining Factors of Education Quality**

According to Hidayat (2017), there are two factors that significantly determine the quality of education: the teaching performance of teachers and the utilization of learning resources. His research on factors influencing the quality of education, particularly in primary education, specifically in primary schools in the Indramayu District, Indramayu Regency, West Java Province, showed that both factors, individually and together, have a significant impact on school quality.

Muhammad's study (2018) also emphasizes the pivotal role of teachers as the primary determining factor of education quality. In his research on factors contributing to low-quality education at a secondary school in Tigo Lurah, Solok Regency, West Sumatra Province, he

identified four factors causing low school quality: (i) the quality of educators, (ii) student factors, (iii) infrastructure, and (iv) the school environment. It was found that teachers sometimes taught subjects unrelated to their fields of expertise, leading to a lack of mastery and professionalism in teaching. Student factors contributed to low school quality due to students not taking the learning process seriously and displaying a lack of discipline in adhering to school rules. Additionally, insufficient infrastructure affected students' motivation to engage in effective learning. The school environment also played a role in low-quality education, with poor relationships between the school community and parents affecting educational quality.

Both studies reveal that educators play a central role in determining the quality of education. High-quality educators are essential for the success of educational development. However, not just any teacher can enhance educational quality, as found in the second study, where teachers not qualified in their respective fields led to poor education quality. Therefore, professional teachers are the ones who have a significant impact on education quality. Prihono et al. (2022) conclude that there are seven key factors throughout the study from 2012 to 2022 that correlate with the quality of teachers in Indonesia. These factors encompass work motivation, the leadership style of school principals, adherence to work discipline, the working environment, the prevailing work culture, and overall job performance.

In contrast to determining factors in school education, higher education quality comprises at least ten factors. These ten factors have been designated by the Directorate General of Higher Education as determinants of quality. Research by Singgih and Rahmayanti (2008) regarding factors influencing the quality of higher education concluded that these ten factors, which include governance, community service, curriculum, learning processes, human resources, academic atmosphere, research and publications, student affairs, finances, and infrastructure, have a significant impact on quality.

One of the components of higher education's human resources, in addition to lecturers, is students. The quality of incoming students significantly determines the quality of graduates from higher education institutions (Sumarno, 2012). Sumarno's study found that the quality of incoming students is problematic, as many private higher education institutions admit students without proper selection. Consequently, the quality of the output is compromised, and the institutions produce less-than-qualified future teachers. Currently, many private higher education institutions, especially those offering teacher education programs, only achieve accreditation status C, as discovered in Agung and Santosa's (2017) study. This situation undoubtedly lowers the quality of education in schools. High-quality education in schools cannot be expected when the educators are not of high quality, especially if they graduate from low-quality TCs.

The situation is exacerbated by the fact that many top-performing high school graduates are not interested in pursuing a career as teachers. The low salary for teachers is one of the main reasons behind this reluctance. According to Mansir's (2020) teacher salaries in Indonesia are still relatively low, especially for most private and contract teachers. Mansir compared Indonesian teacher salaries to those in Japan, where teachers earn an average of IDR 38 million per month. Even novice teachers in Japan earn around IDR 17 million per month. Mansir argued that Japan recognizes the importance of teachers as a key element in development, which is why they reward teachers with suitable salaries that ensure their well-being. In contrast, the Indonesian government appears less concerned about the fate of its teachers, as evidenced by the economic instability of many teachers, especially contract

teachers. This, in turn, reduces interest in teaching, as salaries and overall well-being are low. Furthermore, the current generation, especially millennials, prioritize prestige and are therefore less inclined to become teachers in Indonesia. Mansir also suggested that improving teacher welfare could change the public perception of teachers, as people often compare teacher salaries with those of doctors or engineers. Higher teacher salaries and improved well-being would likely increase interest in teaching.

This research aims to analyze the quality of students currently pursuing education in TCs to become professional teachers. Bhakti and Maryani (2017) emphasized that high-quality human resources are only produced by high-quality educational institutions. However, as mentioned earlier, many low-quality teacher education institutions still exist. Sumarno (2012) also concluded in his study that the quality of higher education in Indonesia is low, partly due to the low rankings of Indonesian universities on a global scale. For example, in 2011, the highest-ranked Indonesian university, the University of Indonesia, was ranked 217th out of the top 600 universities in the world according to THE-QS World University Ranking. There are also many low-quality private TCs. Therefore, this research will also evaluate the quality of TCs. responsible for producing high-quality future teachers.

Until now, society has relied on accreditation status or the accreditation status of specific programs to assess the quality of TCs. Accreditation is a government-regulated assessment of program suitability within educational institutions based on established criteria. The Ministry of Research, Technology, and Higher Education's Regulation No. 44 (Minister of Research, Technology, and Higher Education of the Republic of Indonesia Regulation on National Higher Education Standards. , 2015) established eight National Education Standards (NES) that must be met by higher education institutions, including (i) graduate competency standards, (ii) learning content standards, (iii) learning process standards, (iv) learning assessment standards, (v) faculty and staff standards, (vi) learning facilities and infrastructure standards, (vii) learning management standards, and (viii) education financing standards. Based on these standards, the National Accreditation Agency for Higher Education (NAA-HE) developed instruments for assessing institutions and determining their accreditation status.

NAA-HE is a government agency with the authority to accredit higher education institutions, including TCs. During the accreditation process, NAA-HE uses an assessment instrument. This instrument measures four dimensions of assessment, as specified in Regulation of NAA-HE No. 4 of 2017: (i) the quality of leadership and governance performance, (ii) the quality and productivity of outcomes, (iii) the quality of processes, and (iv) the performance of input quality, including human resources (faculty and staff), students, curriculum, facilities, financing, and cooperation.

#### **Research Method**

The research method involves a combination of quantitative and qualitative approaches. This approach is employed to evaluate the accreditation of TCs and the quality of incoming students at TCs. The study population includes all public and private TCs offering both Elementary School Teacher Education (ESTE) and Teacher Professional Education (TPE) study programs. The research subjects consist of the Heads of ESTE and TPE study programs from four TCs located in and around Jakarta, as well as their senior-level students from both education study programs. The four TCs are The State University of Jakarta, The Muhammadiyah University Prof. Dr. Hamka, The College of Pedagogy and Educational

Sciences (CPES) Kusumanegara, and CPES Arrahmaniyah Depok. The first two colleges offer both ESTE and TPE study programs, while the latter two only provide ESTE study programs. Quantitative analysis involves secondary data obtained from the Higher Education Data Center (HEDC), Ministry of Education and Culture, focusing on the accreditation status of TCs. Primary data are collected through student questionnaires to assess the quality of incoming students when they enroll in TCs. Qualitative data analysis is conducted on information obtained from Focus Group Discussions (FGD) with the Heads of ESTE and TPE study programs. These discussions are aimed at gathering their opinions and insights on how to improve the quality of teachers and TCs.

#### **Result and discussion**

# 1. General Finding

Minister of Education and Culture (2013) has issued Regulation No. 87 regarding Teachers Professional Education (TPE) program, with the aim of producing professional teachers for various educational institutions. Since then, the teacher education system has undergone changes. To become a professional teacher, a prospective teacher must first complete a bachelor's degree and then participate in a 1-year TPE program to earn the professional teacher title abbreviated as 'Gr.' Therefore, graduates with an education bachelor's degree cannot immediately become professional teachers; they must pursue further education through TPE program. The learning system in the TPE program includes workshops, teaching practices, and competency assessments. To pass the TPE program, students must achieve a minimum passing grade of 80 %. Students who do not meet this minimum criterion are given the opportunity for additional training until they attain the required minimum score.

# 2. Special Findings

# a. Student Input Quality

Student input plays a crucial role in determining the quality of graduates from TCs. Therefore, it is necessary to conduct strict selection processes for prospective students to ensure the recruitment of high-caliber teacher candidates.

# 1) Student Rankings in High School Grade 12

Information about student rankings during their time in high school can provide an insight into the quality of student input. The following figure presents a visualization of student rankings.

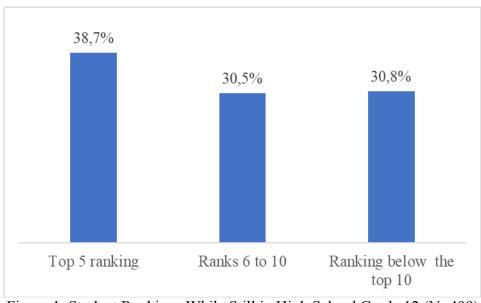


Figure 1. Student Rankings While Still in High School Grade 12 (N=499)

From the chart, it can be seen that out of 499 students, 38.7% ranked in the top 5 in their class during high school, 30.5% ranked between 6th and 10th, and the remaining 30.8% ranked outside the top 10. Based on this data and information, it can be concluded that the quality of student input is quite good because the majority ranked in the top 10 during their high school education. It has been frequently heard that those with high rankings in high school often choose to major in non-education faculties. This shift is a result of teacher certification, as this policy has made the teaching profession highly promising.

# 2) Student Interest in Entering TCs

Information about students' interest in entering TCs is obtained directly through student questionnaires. In recent years, ESTE Program has become one of the favorite choices for high school graduates. The following figure presents the results of an online survey on the reasons why students choose to enter TC.

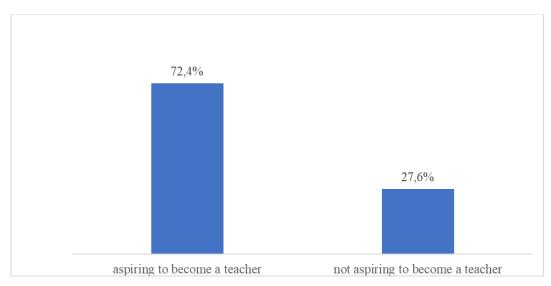


Figure 2. Reasons for Students Choosing to Enter TC (N=499)

From the chart, it is evident that the majority of students (72.4%) choose to enter TC because they genuinely aspire to become teachers. This information provides an insight into the teaching profession being highly promising, which can attract high school students' interest. This serves as a strong basis since TCs can select outstanding prospective students.

Regarding student input, it is evident that TCs have been able to attract students of choice due to the relatively high level of public interest in entering TCs. It can even be observed that a significant number of students who enter TCs are those who ranked in the top 5 during their time in high school. However, it is essential to approach this observation with caution as the student sample comes from well-known TCs in Jakarta and surrounding areas, where the teaching profession is especially appealing, notably in the Special Capital Region due to the high income of teachers in Special Capital Region Province. Regarding teacher input, the study team compared it with student input in other countries who are selected to become teachers. For instance, in Singapore, teaching is among the top 5 favorite professions because of the rigorous selection process, as mentioned by Herususilo (2021). This is because the teaching profession in Singapore undergoes a stringent selection process, resulting in skilled and creative teachers in performing their duties. According to Easyuni's guidelines (Easyuni, 2019), teachers in Singapore are known for their quality because they are selected from the best students during their high school years. While the situation in Indonesia is not entirely the same, the findings from this study provide hope as a significant number of the top-performing high school students are starting to show interest in pursuing higher education at TCs.

# b. Quality of TCs

So far, to understand the quality of a TC or a study program, one can obtain information through accreditation status and the accreditation score it has achieved. Data from HEDC in 2020 shows that there are currently 595 TCs in Indonesia, consisting of 43% Religious TCs, 11.1% State TCs, and 45.9% Private TCs (Figure 3). Therefore, the majority of TCs offering the ESTE Program are private institutions. Among all the TCs, only 40.3% are accredited, meaning that over half of the existing TCs are not accredited.

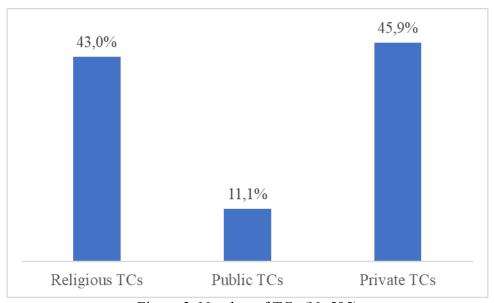


Figure 3. Number of TCs (N=595)

All these TCs offer a total of 603 ESTE programs; this number exceeds the count of TCs because some institutions offer ESTE programs at multiple locations or campuses. Out of the 603 ESTE programs, only 41.1% have achieved accreditation (Figure 4).

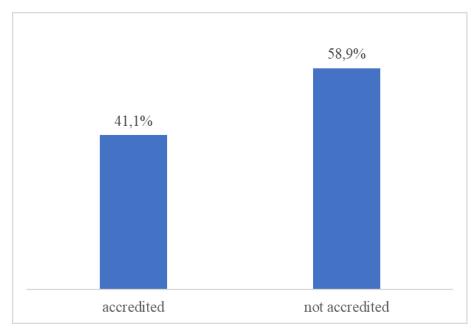


Figure 4. Accreditation Status of ESTE Programs (n=603)

It can be seen that less than half of the ESTE programs are accredited. Among the accredited ESTE programs, only 11.7% have received an A accreditation, 52.4% have received a B accreditation, and 35.9 % have received a C accreditation (Figure 5).

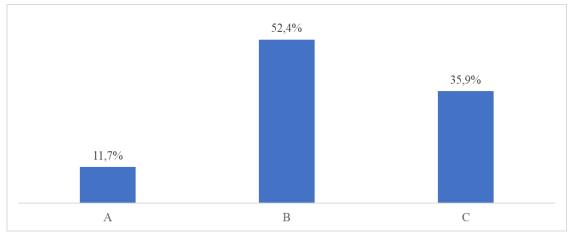


Figure 5. The Accreditation Level of the Accredited ESTE Programs (N= 248)

It is evident that many ESTE programs are accredited at the C level. This undoubtedly affects the quality of prospective teacher graduates. TCs that are accredited at level C should strive to improve themselves as soon as possible to achieve level B accreditation to produce high-quality graduates.

Among the TCs, approximately 21.2% have been designated by the Ministry of Education and Culture to provide TPE programs. TCs offering TPE programs actually provide a total of 145 TPE programs, and only 24.8% of them have achieved level B accreditation, which is the minimum accreditation status required for a TC to offer TPE programs. The fact that many

TCs, and then ESTE and TPE programs remain unaccredited indicates that many TCs have only recently obtained operational permits to offer ESTE and TPE programs. From this, it can be understood why many prospective teachers graduate from TCs with either newly acquired level C accreditation or those that remain unaccredited.

There is a red thread indicating the relationship between teacher competence and the quality of education, or in this case, the low performance of Indonesian children at the global level. Low teacher competence is marked by the low scores on the teacher competence test conducted by the government in 2015. This low teacher competence is, among other things, caused by the low quality of TCs as institutions that produce teachers. Most TCs are still accredited as C, as found in this study and previous studies. Many of them even operate based on operational permits from the government, specifically the Directorate General of Higher Education, Ministry of Education and Culture in this case. Additionally, the quality of incoming students is also low, as indicated in the previous study that many private TCs admit new students without rigorous selection. Furthermore, from primary data, it is evident that most students were not ranked in the top 5 during their time in secondary school.

Ideally, teachers should be those who ranked in the top 5 during their secondary school years, as is the case in Singapore. Unfortunately, the salary for teachers is not attractive enough to attract the best secondary school graduates to pursue education to become teachers. With the current teacher certification policy, teacher salaries are becoming more competitive with other professions, which has led to an increasing number of secondary school graduates showing interest in becoming teachers. This is, of course, very beneficial for TCs to implement strict selection processes to ensure the quality of incoming students. Furthermore, TCs should also maintain a high level of quality, with a minimum accreditation of B being allowed to offer ESTE and TPE programs. It's important to have high-quality incoming students studying in high-quality TCs.

#### Conclusion

In conclusion, this study reveals intriguing patterns in the career choices of high school students and the subsequent qualifications of future teachers. While the majority of high-achieving students, often within the top 10 rankings, are inclined to pursue careers in education, the pool of potential teachers extends beyond this group. Notably, many aspiring teachers do not hail from the highest-ranking students during their secondary school years. Additionally, a concerning trend is observed where a significant number of teacher candidates fail to meet the necessary prerequisites for conducting teacher professional education, signaling a need for enhanced qualification standards in the field of teacher certification. These findings underscore the complexity of teacher recruitment and the imperative to foster a diverse and well-qualified teaching workforce.

The recommendations put forth in this study have significant implications for the government's role in shaping the education sector. Firstly, offering scholarships to the highest-achieving graduates for teacher education implies that financial incentives could attract top talent into the teaching profession, potentially raising the overall quality of educators. However, it also necessitates a well-structured scholarship program that can identify and support the most promising candidates effectively. Secondly, the proposal to revoke a TC's operational permit for failure to meet standards implies a crucial need for stricter quality control measures in teacher education. This policy could help maintain high standards within TCs, ensuring that future educators receive adequate training. Nevertheless,

its implementation requires a clear and transparent system of standards and evaluation, which should be well-defined and consistently enforced to prevent any undue disruption in teacher education programs.

One limitation of this study is that it was conducted in the midst of the COVID-19 pandemic, which led to the study location being restricted to only TCs around the Special Capital Region of Jakarta province. Another limitation of the study is that the teacher salaries in the Special Capital Region of Jakarta province, are indeed high, making it quite attractive for high school graduates to pursue a teaching career. Therefore, caution is needed when interpreting the conclusions of this study before applying its recommendations to other provinces.

# Acknowledgements

We express our gratitude to everyone involved in conducting this study, with special appreciation extended to the dedicated efforts and teamwork of the Policy Research Center staff in accomplishing the research's outcomes.

In this paper, Simon Sili Sabon assumes the role of the principal author, responsible for the conceptualization, drafting, analysis, and composition. Additionally, Nur Listiawati, Siswantari, and Yendri Wirda have made significant contributions as co-authors by conducting literature reviews and enhancing the content of this paper.

#### References

- Adel, D. F. B. (2019). Pulling Back the Curtain' The Relationship between Teacher Quality and Students' Educational Outcomes and Its Effect on the Communities Issues. *Proceedings of International Conference on Research in Education and Science*, 89–108. http://www.epess.net/tr/download/article-file/805192
- Bhakti, C. P., & Maryani, I. (2017). Peran LPTK dalam Pengembangan Kompetensi Pedagogik Calon Guru. *Jurnal Pendidikan (Teori Dan Praktik)*, *1*(2), 98. https://doi.org/10.26740/jp.v1n2.p98-106
- Directorate General of Teachers and Education Personnel, M. of E. and C. (2015). *Teacher Competency Test Data*.
- Dwita, A., & Retnawati, H. (2022). *Students' errors in solving mathematical problems*. 040007. https://doi.org/10.1063/5.0107794
- Easyuni. (2019). *Panduan Kuliah Pendidikan dan Keguruan di Singapura*. EasyUni San Bhd. https://www.easyuni.co.id/singapore-education-and-teaching
- Herususilo, Y. E. (2021, April 10). *Belajar Cara Singapura Melahirkan Guru Berkualitas Kelas Dunia*. https://edukasi.kompas.com/read/2021/04/10/114303571/belajar-carasingapura-melahirkan-guru-berkualitas-kelas-dunia
- Hidayat, E. (2017). FAKTOR-FAKTOR YANG MEMPENGARUHI MUTU SEKOLAH (PENGARUH DARI FAKTOR KINERJA MENGAJAR GURU DAN PEMANFAATAN SUMBER BELAJAR). *Jurnal Administrasi Pendidikan*, *11*(1), 81–88. https://doi.org/10.17509/jap.v21i1.6663
- Mansir, F. (2020). KESEJAHTERAAN DAN KUALITAS GURU SEBAGAI UJUNG TOMBAK PENDIDIKAN NASIONAL ERA DIGITAL. *Jurnal IKA PGSD (Ikatan Alumni PGSD) UNARS*, 8(2), 293. https://doi.org/10.36841/pgsdunars.v8i2.829
- Minister of Education and Culture of the Republic of Indonesia Regulation on Pre-Service Teacher Professional Education Program, Pub. L. No. 87, 1 (2013).
- Minister of Research, Technology, and Higher Education of the Republic of Indonesia Regulation on National Higher Education Standards. , Pub. L. No. 44, 1 (2015).
- Muhammad, A. A. (2018). Analysis Factor yang Mempengaruhi Rendahnya Mutu Pendidikan di SMA Negeri 1 Tigo Lurah Kabupaten Solok. Universitas PGRI Sumatera Barat.
- Prihono, E. W., Retnawati, H., Lapele, F., & Waluyo, W. B. (2022). The quality of Indonesian teachers in the digital era: A meta-analysis. *Jurnal Penelitian Dan Evaluasi Pendidikan*, 26(2). https://doi.org/10.21831/pep.v26i2.52318
- Santosa, A., & Agung, I. (2017). DINAMIKA LPTK MENUJU PERGURUAN TINGGI KELAS DUNIA (WORLD CLASS UNIVERSITY/WCU). *Perspektif Ilmu Pendidikan*, *31*(1), 43–54. https://doi.org/10.21009/PIP.311.6

- Singgih, M. I., & Rahmayanti. (2008). Faktor-faktor yang Mempengaruhi Kualitas Pendidikan pada Perguruan Tinggi. *Seminar Nasional Teknoin 2008 Bidang Teknik Industri*, 133–141.
- Sumarno. (2012). Rendahnya mutu pendidikan tinggi Indonesia: Penyebab dan strategi peningkatannya. *Jurnal Pendidikan*, *3*(2), 1–13.
- Zaini, M. (2018). The Effectiveness of Learning Implementation Plan Tool Through Design-Based Research. *The Open Psychology Journal*, 11(1), 271–278. https://doi.org/10.2174/1874350101811010271

Contact email: Simo003@brin.go.id