Implementation of the Logic Model in the Evaluation of New Student Admissions Online

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Abstract
This article aims to describe the application of the Logic Model in the Evaluation of New Student Admissions (PPDB) Online. The research used is field research using a quantitative descriptive approach and evaluation methods. To describe the evaluation of PPDB used, a logic model (logic model). The components to be evaluated include input, activity, and output components. The research was conducted at a public high school in the Dharmasraya district. The data source for this research is the PPDB committee consisting of principals, teachers, and education staff, totaling 140 people. The data collection technique used an instrument in the form of a questionnaire with the content validity test using the Aiken test and the construct validity test applying the Confirmatory Factor Analysis (CFA). After that, the reliability test was carried out, and continued to analyze the data using descriptive statistics with central tendency. The results were obtained in evaluating the PPDB program at SMA Negeri in Dharmasraya Regency with a logic model covering input, activity, and output components. Achievement of quality on the input component with good category. Achievement of quality in the activity component with a good class. In contrast, the achievement of quality in the output component is categorized as good. Overall, the three branches of online PPDB quality achievement at SMA Negeri in Dharmasraya district are classified as good, with an average of 82.10. This condition must be maintained and evaluated periodically to improve the following year's PPDB.

Keywords:
Evaluation, PPDB, Logic Model

Kata kunci:
Evaluasi, PPDB, Model Logika
INTRODUCTION

New Student Admission (PPDB) is a form of student management activity that must be adequately managed. Nothing will be regulated and taken care of if an educational institution rejects students. Ibrahim et al. (2021) stated that PPDB needs to be handled quickly and precisely. Therefore, PPDB activities require proper governance. Management, as an aspect contained in the eight National Education Standards (8 SNPs), is an essential part of improving the quality of education, including the management of students. Asmendri (2021) said that PPDB management was carried out before PPDB activities were carried out by determining the capacity first. The PPDB system is based on (Permendikbud nomor 1 pasal 13, 2021), that PPDB is carried out in four pathways, namely the high school level zoning path of 50%, the affirmation path of 15%, the achievement path, and the transfer route of parents or guardians of prospective students by 5%. This system is known as the zoning system, which has been in effect since 2017 and underwent updates the following year.

PPDB online is not something new anymore. Several regions in Indonesia have implemented online PPDB in the past few years. The online PPDB of public high schools in West Sumatra began to be implemented in 2019. Including public high schools in Dharmasraya district, under the auspices of the regional education office branch V Muaro Sijunjung. Sixteen public high schools in the Dharmasraya district participated in the online PPDB implementation. PPDB online is one aspect of management in education that needs to be managed as well as possible. As one of the management standards following Law number 20 of 2003 concerning the national education system, the management standard is related to the planning, management, and supervision of all educational activities at the education unit level. PPDB needs to be carried out quickly and precisely as one of a series of management standards (Nasser et al., 2021).

PPDB online, as stated by Imron (2017), is an essential student management activity held by every school. According to Rosalinda (2019), PPDB is an activity carried out through stages and procedures to acquire new students. Warsita (2015) explains PPDB online as accepting new prospective students who meet specific criteria to be able to sit or be obtained at a higher level of education which is carried out online through the application system. All processes are done online. The results announcement selection is also conducted online from the registration stage.

Era 4.0, online PPDB, is considered entirely appropriate. PPDB online as a form of service innovation in educational institutions. Where the service is done digitally (Mursyidah et al., 2021), online PPDB is implemented to improve educational services, which is expected to provide convenience for prospective students, parents, and the community who will register for school. Istiqomah et al. (2021) explained that the application of the online PPDB system is expected to make the system more factual, open, and responsible and can be taken by the community more easily and quickly through the internet network. Especially during the COVID-19 pandemic, all face-to-face access is entirely restricted. The implementation of online PPDB is expected to break the chain of the spread of the virus.

The phenomenon found in the field, online PPDB activities from the first year carried out, namely the 2019/2020 school year until now the 2021/2022 school year, encountered many obstacles. Among them are less stable internet networks, servers that often have errors, and prospective new students still having difficulties. With the online PPDB implementation system, errors in data input, measuring distances, differences in student data, lack of understanding of information on online PPDB implementation, and lack of IT mastery. This condition occurs in
almost all schools in the Dharmasraya district. Another problem encountered in every school is the unfulfilled number of quotas that have been set. A shortage of allotments is due to the percentage on the transfer path of parents and many non-academic achievements that prospective new students do not fill. This action causes a shortage of students who register. Not only that, many students want to go to school outside their zoning. So new and small schools do not get students according to the quota and as expected.

ST Nurjaningsih (2019) explains the factors that influence the success of PPDB activities, including 1) The existence of competent and professional human resources. 2) The presence of adequate facilities and infrastructure. 3) The presence of a readily accessible information system. 4) The company of cooperation for the good of all parties involved. According to George C. Edward III’s theory in writing (Rachmawati et al., 2019), the factors that influence success and failure are communication, human resources, attitudes, and bureaucracy. To see if the program can be continued or needs to be revised. So is the case with this online PPDB program. As stated by Wrihatnolo (2010), A program evaluation is said to be good if it can inform the program owner and other people who use the program to 1) Understand that all program components have been implemented. 2) The program has contributed to achieving the objectives with the strategies. 3) Whether the program has worked well or not. 4) Whether the program learned can be put into practice and provides information on the success of other programs.

Evaluation can be done by applying the model as a guide for the assessment. Logical models can be an option in evaluation activities. This model was popularized by the WK Kellogg Foundation and the Annie E. Casey Foundation. The foundation plays an essential role in using logical models for evaluation. A logic model (logic model) is a model based on logic to see how a program will work in certain environmental conditions to solve identified problems. David (2015) explains that this model includes input, activity, output, and outcome components. The input component comprises human and material resources, infrastructure, and costs. The activity aspect is the process carried out, and the output is the result. The outcome component is the resulting impact. The evaluation component was developed based on the influencing factors and the implemented evaluation model. Previous researchers have carried out evaluation research on PPDB. Meanwhile, in this study, the researchers applied the logic model as a guide for implementing the evaluation.

METHOD

This field research uses a quantitative descriptive research approach with an evaluation method. According to (Nana Syaodih Sukmadinata (2016), the evaluation research method is an evaluation design and procedure carried out to collect and analyze data systematically to determine value in educational institutions. According to Siregar (2017), evaluation research is research that becomes part of the decision-making process. In other words, this evaluation research is conducted to compare a phenomenon or event, activity, result, or product with the standard or program that has been set.

The study was conducted at 16 public high schools in Dharmasraya district spread over ten sub-districts. The research data source is the PPDB committee consisting of principals, vice principals, teachers, school operators, and administration staff. A total of 140 people. All these data sources become the population and research samples. All the existing population became the research sample. This technique is known as the saturated sample technique. The content validity
test was conducted using Aiken, and the construct validity test used Confirmatory Factor Analysis (CFA). The data analysis technique used descriptive statistics by applying central tendency. According to Tjalla (2018), statistics look for a number around which the values in a distribution converge. The number at the center of a distribution is known as the central tendency. The data analysis technique analyzes data groups without concluding the observed population. Arikunto (2010) explained that this descriptive statistical analysis was carried out to describe unstructured data.

RESULTS AND DISCUSSION

Result

The PPDB Online evaluation was carried out using an instrument in the form of a questionnaire distributed to 16 public high schools in the Dharmasraya district. For each component of the Logic model, results are obtained with predetermined criteria. Based on the analysis results, the PPDB input components are generally categorized as good, with an average achievement of 80.93. However, the experience component of being a committee is in the excellent category, with an average of 72.02, and the budget component is still in the excellent category with an average of 73.22. This condition will be related to the achievements of the next element. If all input components achieve good results, then the activity components will also be suitable. However, because the two input components achieved satisfactory results, the activity component category was also sufficient.

The activity component can be categorized as sufficient, with an average achievement of 79.37. The existence of the committee's experience is still enough, so the activities in the data recording component have not obtained a good category. This component has two components: the data recording component in the poor class with an average achievement of 69.00 and the result announcement component in the moderate category with an average achievement of 78.51. Furthermore, the output component is generally categorized as good, with an average achievement of 85.99.

Graph 1: Logic Model Evaluation Component
This description shows the overall evaluation achievements of the online PPDB program in the following graph.

**Graph 2: Evaluation Results**

From the answers above, it is clear that the PPDB program at public high schools in the Dharmasraya district is generally categorized as good, with achievement of 82.10.

**DISCUSSION**

Based on the data analysis, the quality of the online PPDB input component at SMA Negeri in Dharmasraya district is good. Of all the indicators in the online PPDB evaluation input component, public high schools in the Dharmasraya district are generally good. The input components for the online PPDB evaluation include human resources, activity guides, facilities, and infrastructure for every public high school in the Dharmasraya district. This action can be seen from the achievements of each of the existing indicators. The committee has good IT mastery competence as the executor of online PPDB activities. In terms of experience, they have been on an event committee for more than two years and have a high sense of responsibility.

From the results of research on online PPDB evaluation using a logic model at public high schools in the Dharmasraya district, the quality of the input component is already good. The achievement of these components is influenced by the success factors of the program, as stated by ST Nurjaningsih (2019) that the following factors influence the success of the program: 1) The presence of competent and professional human resources. 2) Adequate facilities and infrastructure. 3) Information systems that are easily accessible. 4) Good cooperation from all parties involved. This opinion is reinforced by (Novita, 2017), that human resource factors influence the program’s success. Human resources are the dominant component in every activity.

The online PPDB activity, which has only been implemented in the past two years, requires guidelines to help prospective students understand the registration procedure. The PPDB committee team for each school prepares policies by paying attention to technical instructions and regulations regarding PPDB issued by the minister of education, namely Per mendikbud number 1 of 2021, and paying attention to the governor’s rules of West Sumatra regarding the committee. The guidelines compiled are approved by the principal and are known to the school committee. In preparing the guide, the team paid attention to legibility and usability of the guide. So, the guidelines will help prospective new students and the public understand the implementation of
online PPDB activities. The focus is essential material to help prospective students and interested people understand the procedures for activities. As stated, (Novita, 2017), compiling a guidebook is one step to recruiting prospective participants.

All activities require funds and supporting infrastructure. For online PPDB activities at SMA Negeri Dharmasraya, most of the funding for activities is budgeted from BOS funds which are earmarked for the needs of online PPDB activities. Including for the consumption of the activity committee. The necessary facilities and infrastructure need to pay attention to adequacy, feasibility, and up-to-date following the needs of the activity. This activity is also confirmed by ST Nurjaningsih (2019) opinion that the program's success is influenced by the existence of adequate facilities and infrastructure. In addition, Huda, (2018) argues that infrastructure is a tool to support the process of educational activities, including PPDB activities. Generally, the facilities and infrastructure for PPDB activities at SMA Negeri in Dharmasraya district are good. This activity is under ST Nurjaningsih's research (2019) with the title New Student Admission Management (PPDB) Zoning System conducted at SMA Negeri 2 Tasikmalaya for the 2019/2020 school year. The results of his research concluded that the results of his study on PPDB management were carried out well. The achievement or success of the PPDB is influenced by several factors, such as professional human resources, adequate facilities, and cooperation and support from various parties.

Research conducted by Warsita reinforces this opinion entitled Evaluation of the Online New Student Admission System (PPDB) for Improving the Quality of Learning in Gorontalo City. The results of his research conclude that online PPDB is faster, easier, and more transparent. This activity is because there are no difficulties in preparing technical personnel, namely human resources, which become the organizing committee, and there are no difficulties compiling guidelines. According to the online PPDB technical approaches, there are no difficulties in completing the online PPDB requirements. In line with the opinion above that the program's success factors will significantly influence the quality of the online PPDB input component, Darya (2020), in his research entitled Evaluation of the Implementation of the New Student Admission System (PPDB) in Balikpapan City stated. The study concludes that the formation of a professional committee, good socialization, and cooperation between stakeholders will be able to make the PPDB implementation successful.

Another opinion that supports the achievement of the quality of online PPDB input is the research of Rosalinda (2019), with the title Online and Offline-Based New Student Admission System in Vocational High Schools. In this study, the conclusions related to online PPDB are seen from the advantages that online PPDB is easily accessible and time is not limited to working hours. Schools provide sufficient facilities and infrastructure such as computers, laptops, and others, more cost-effective budgets, and accurate data processing. This advantage supports the quality of the online PPDB input component.

However, some studies reject the implementation of this online PPDB. Research conducted by Mulyatun & Wahyuni (2019) was born at two schools, namely Piyungan High School and Pathuk High School, in the Gunung Kidul area. The research respondents were parents of prospective new students. The results of his research concluded that several hypothesis tests were carried out. The results showed that online PPDB was not easy and did not provide benefits, so users refused to use the online PPDB system in the future. This online PPDB needs to be addressed so that it is valuable and easy to use by users. This refusal is inversely proportional to
the results of research conducted by Rahmayanny (2019), entitled The Effectiveness of the Online New Student Admission System (PPDB) at SMP Negeri 21 Batam, Riau Islands.

Although there are obstacles in the field and the system is considered difficult, the community is enthusiastic and excited about this online PPDB system. So it can be concluded that from the online PPDB evaluation conducted in previous studies, online PPDB will be successful if the supporting factors are met. However, some reject the implementation of this online PPDB because it is difficult and not valid for users. According to researchers in the 4.0 revolution era, online PPDB should still be implemented and repairs made to components or systems that are still not appropriate to improve the future. The quality of the input components for evaluating the PPDB program at public high schools in the Dharmasraya district is good.

The quality of the achievement of the online PPDB evaluation activity component at SMA Negeri in Dharmasraya district is categorized as sufficient. The members include socialization activities, implementation, data recording, and results announcement. In general, socialization activities can be said to be good. The committee first prepares to hold a team meeting to carry out socialization activities. The committee team also communicates directly or through WhatsApp or telephone intermediaries for the smooth running of the program. Together the committee will develop a socialization strategy that will be carried out. Among the several techniques, socialization through brochures was quite successful, and others were good. Socialization is carried out to convey information on the implementation of PPDB online to prospective new students. Prospective new high school students are: 1) Students in class IX of junior high school or MTs. 2) Graduates of the package B program. 3) Previous graduates who still meet the existing criteria.

The body of PPDB activities is the implementation of the activity itself. What started with socialization activities? The performance of PPDB begins with preparing a committee that organizes various equipment or facilities that will be used. Such as designing computers, printers, stationery, complaint rooms, etc. During PPDB activities, the committee provides excellent service to prospective students and interested parties.

Moreover, online PPDB activities are still relatively new, with a system that prospective students do not yet sufficiently understand. Good service will give satisfaction to prospective students as customers. as stated by Manalu et al., (2007), providing the best service is one of the efforts to create customer satisfaction. Mutiarin & Wijaya (2017), also emphasized that the quality of service activities provided to individuals and groups follows applicable laws and regulations.

In carrying out their duties, the committee is ordered by the school principal with a clear division of tasks accompanied by a job description. The committee's responsibilities include the person in charge of activities directed by the school principal, the chairman of the committee from the deputy, the secretary, the treasurer, and the operator from teachers and education staff. In carrying out the duties of the committee, many obstacles were encountered. In PPDB online, the disturbing block is the internet network which is insufficient and less stable. This activity can be seen from the percentage of achievements in the less category, with an average of 64.28. In addition, the PPDB server often errors. It often causes anxiety for prospective students and makes the committee work overtime.

Another obstacle faced by schools is not meeting the quota of new students that have been set. This condition makes schools lack students, petite and new schools. The problems that occur need to be solved. Through the education office branch, the education office provides an opportunity for schools whose quotas have not been met to add percentages by increasing the
registration time and doing it manually because the online system has ended. To see the progress of PPDB, the committee will record knows the development of the number of prospective applicants interested in entering their respective schools.

The above conditions are like the results of research conducted by Rosalinda (2019), which showed that the implementation of online PPDB experiences problems, namely servers that often have errors and poor internet networks. Not good enough to interfere with the performance of the online PPDB system. Following the technical guidelines for implementing PPDB, which the provincial education office has prepared, announcement activities follow technical instructions. The online PPDB announcement was carried out in two stages. Students can also access online to see them accepted into schools based on their zoning or other options such as achievement, affirmations, and others. Through the PPDB application, students can see the announcement results according to a predetermined schedule. Besides being seen directly from the application, the committee also conveyed the PPDB results through the school's website, reading, social media, and Whatsapp groups that had been created. Technological advances provide many conveniences for prospective students and the public to find out the results of PPDB.

The results of research carried out by ST Nurjaningsih (2019) with the title New Student Admission Management (PPDB) Zoning System conducted at SMA Negeri 2 Tasikmalaya for the 2019/2020 school year. The results of his research concluded that the results of his study on PPDB management were carried out well. The achievement or success of the PPDB is influenced by several factors, such as professional human resources, adequate facilities, and cooperation and support from various parties. The results of other studies that strengthen this opinion are the research conducted by Rachmawati et al. (2019), entitled Implementation of the New Student Admission Policy for the Junior High School Zoning System in Baleendah District, Bandung Regency. The conclusion of the research states that the success or failure of the PPDB implementation process is supported by communication, human resources, facilities and infrastructure, disposition, structure, and bureaucracy.

Thus, it can be concluded that the quality of the online PPDB process components at SMA Negeri in Dharmasraya district is in a suitable category. Because there are still indicators that are still not good, as stated by researchers who conducted previous research related to the factors supporting and inhibiting the program's success. Therefore, this component needs further improvement and evaluation of the supporting members to be better in the future. This achievement is inseparable from the factors that influence the success of a program. One of the factors is cooperation. Good cooperation is one of the success factors of the program. As stated by ST Nurjaningsih, (2019), namely good collaboration from all parties involved will encourage the success of a program. Likewise, Damayanti (2019) stated that the lack of collaboration between stakeholders can hinder the progress of the quality of education. This means that teamwork also affects the success of the program.

Therefore, the PPDB team of each school works hand in hand with the success of the PPDB program by working together, contributing, and caring about the problems or difficulties experienced by prospective students by providing good service. The committee's care or genuine empathy gives its value to prospective students. Empathy is a factor of satisfaction. As stated by Mutiarin & Wijaya (2017), that empathy is the committee's concern in giving sincere attention to participants to understand the wishes of participants in dealing with problems.
The committee then prepares a report on the results of the activities. The information is organized by considering the structure and content. Information is beneficial for annual data archives and evaluation at a later stage. After the report is prepared, the principal and the team prepare a follow-up plan by considering the various problems or obstacles encountered during the implementation of the activity. Damayanti’s research (2019), entitled The Importance of Cooperation for Improving the Quality of Education, results. The study’s conclusion states that cooperation between each stakeholder significantly influences success. The quality of the output component in the online PPDB of SMA Negeri in Dharmasraya is due to the excellent collaboration between stakeholders in carrying out their roles.

CONCLUSION

Based on the findings and analysis, the conclusions from the online PPDB evaluation at public high schools in the Dharmasraya district using a logic model are as follows. The quality of the online PPDB evaluation input components for public high schools in the Dharmasraya district obtained good results. This achievement is inseparable from the factors that influence the success of the program, such as resources, both professional human resources and material resources, as well as adequate facilities and infrastructure. The quality of the online PPDB evaluation activity components for public high schools in the Dharmasraya district obtained sufficient achievements. This action is due to the obstacles encountered during the PPDB implementation. Like a less stable internet network, servers often crash. The quality of the output component of the online PPDB evaluation of public high schools in the Dharmasraya district obtained an excellent achievement. This action is inseparable from the factors supporting the tionsuccess of the program, such as collaboration between stakeholders in online PPDB activities. Of all the existing components, both the input, movement, and output components in the online PPDB evaluation of public high schools in Dharmasraya district using a logic model evaluation can be categorized as good.

REFERENCES

Asmendri. (2021). Melejitkan Kompetensi Manajerial Kepala Madrasah Manajerial (M. Sari (ed.); Cetakan 1). CV.Mazaya Sumatera Barat.

Asri Ulfah Wulan Sari, Ali Imron, A. Y. S. (2017). Efektivitas Penerimaan Peserta Didik baru (PPDB) Melalui Sistem Penerimaan Peserta Didik Online. 1–11.

Damayanti, N. (2019). Pentingnya Kerjasama bagi Peningkatan Mutu Pendidikan. Pendidikan, 1(2), 1–7. https://osf.io/a6vxe/download

Darya, I. G. P. (2020). Evaluasi Implementasi Sistem Penerimaan Peserta Didik Baru (PPDB ) di Kota Balikpapan , Indonesia Evaluation of the Implementation of New Student Admission Systems in. 20(April), 32–41.

David. (2015). Evaluasi dan Strategi Pengembangan SMA Plus INS Kayu Tanam.

Huda, M. N. (2018). Optimalisasi Sarana dan Prasarana dalam Meningkatkan Prestasi Belajar Siswa. Jurnal Manajemen Pendidikan Islam, 6(2), 59. http://ejurnal.stail.ac.id/index.php/radibi/article/view/9/9

Ibrahim, W., Tahir, A., Wahyuni, F. I., Bina, S., & Gorontalo, T. (2021). the Effectiveness of the Implementation of the New Student Admissions Policy Through the Zoning System At the Education and Culture Office of Gorontalo Regency. Jurnal Ilmu Manajemen Dan Bisnis, 9(1),
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41–49. https://journals.ubmg.ac.id/index.php/JIMB/article/view/169

Istiqomah, R., Kristiani, & Wahyono, B. (2021). The Implementation of Online-Based New Student Admissions in Surakarta. IOP Conference Series: Earth and Environmental Science, 1808(1). https://doi.org/10.1088/1742-6596/1808/1/012037

Keputusan Gubernur. (2021). Pengub Sumatera Barat Tentang Pembentukan Panitia Daerah Pelaksanaan Penerimaan Peserta Didik Baru Pada Sekolah Menengah Atas, Sekolah Menengah Kejuruan dan Sekolah Berasrama Tahun Pelajaran 2021/2022.

Manalu, A. S., Sumarwan, U., & Suroso, A. I. (2007). Analisis Faktor-Faktor yang Mempengaruhi Kepuasan Pelanggan Online. In Jurnal Manajemen dan Agribisnis (Vol. 4, Issue 2 Oktober 2007, pp. 67–80). http://e-jurnal.stail.ac.id/index.php/tadibi/article/view/9/9

Mulyatun, S., & Wahyuni, S. N. (2019). Evaluasi Penerimaan Sistem PPDB Online Menggunakan Pendekatan Teori Technology Acceptance Model (TAM). 8(2), 27–40.

Nasser, A. A., Arifudin, O., Barlian, U. C., & Sauri, S. (2021). Sistem Penerimaan Siswa Baru Berbasis Web Dalam Meningkatkan Mutu Siswa Di Era Pandemi. Jurnal Imiah Fakultas Kejuruan Dan Ilmu Pendidikan, 7(1), 100–109. http://ejournal.unsub.ac.id/index.php/FKIP/article/view/965

Novita, M. (2017). Sumber Daya Manusia Yang Berkualitas Sebagai Harta Yang Berharga Dalam Sebuah Lembaga Pendidikan Islam. Nur El-Islam, 4(1), 40–64.

Pramushinha, F., Akhyar, M., & Harjanto, B. (2020). Pelaksanaan Penerimaan Peserta Didik Baru (PPDB) melalui Sistem Zonasi SMA Negeri Kebakrmat Tahun Pelajaran 2018/2019. Nozel Jurnal Pendidikan Teknik Mesin Jurnal Homepage: Https://Jurnal.Uns.Ac.Id/Nozel, 02(03), 169–187. https://doi.org/DOI : https://doi.org/10.20961/nozel.v2i2.43244

Siregar, S. (2017). Metode Penelitian Kuantitatif Dilengkapi Dengan Perhitungan Manual dan SPSS. In Metode Penelitian Kuantitatif Dilengkapi Dengan Perhitungan Manual dan SPSS. Kencana Prenada Media Group.
ST Nurjaningsih, A. Q. (2019). Manajemen Penerimaan Peserta Didik baru (PPDB) Sistem Zonasi. *Jurnal Tata Kelola Pendidikan*, 7, 127.

Supendi, D., Komariah, A., & Kurniady, D. A. (2021). The Effectiveness of Online Website-Based New Student Admissions (PPDB). *Proceedings of the 4th International Conference on Research of Educational Administration and Management (ICREAM 2020)*, 526(Icream 2020), 109–111. https://doi.org/10.2991/assehr.k.210212.022

Tjalla, A. (2018). Tendensi Sentral Dan Variabilitas Pendahuluan. *Jurnal Penelitian Universitas Negeri Sebelas Maret*, 1–50. https://spada.uns.ac.id/pluginfile.php/113638/mod_resource/content/1/Statistika_Pendidikan_unit_2.pdf

Warsita, B. (2015a). Evaluasi Sistem Penerimaan Peserta Didik Baru (PPDB) Online Untuk Meningkatkan Kualitas Pembelajaran. *Jurnal Kwangsan*, 3(1), 27. https://doi.org/10.31800/jurnalkwangsan.v3i1.23

Warsita, B. (2015b). Evaluasi Sistem Penerimaan Peserta Didik Baru (PPDB) Online untuk Peningkatan Kualitas Pembelajaran (Evaluation System Acceptance of Students New (PPDB) Online for Improving The Quality of Learning) Bambang. *Kwangsan*, 3(1), 27–44.

Wrihatnolo, R. R. (2010). *Model Logika Untuk Evaluasi Pembangunan*. Institut for Development and Policy Study.