

Navigating Post-Covid-19 Learning: Assessing Curriculum, Facilities, and Human Resource Developments and Challenges

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Abstract:

This study aims to analyze learning development and the obstacles experienced by the Nahdlatul Ulama Islamic boarding school in Bekasi Regency after the Covid-19 pandemic, from curriculum, facilities, and human resources. This study uses a quantitative approach. The research subjects were students and caregivers from three NU Islamic boarding schools in the Bekasi district: Yapink, Nurul Huda Islamic Boarding School, and Indonesian Motivational Islamic Boarding School. The sampling method used in this research is Stratified Random Sampling and Systematic Random Sampling with proportional composition. The sample size was 320 students with sampling error = 0.05, proportion = 0.5, and the standard value of normal distribution at 5% level, $z = 1.96$. The test results concluded that the quality of student learning in the new average period was generally still relatively low. Educational barriers are a factor that makes the quality of student learning feel less than optimal. This is due to the impact of Covid-19 with the enactment of distance learning, the family economy is affected, and the increase in the price of health facilities, but from an institutional resilience and vulnerability standpoint, it is quite good.

Keywords: *Covid-19, Distance Learning, Pesantren*

Abstrak:

Penelitian ini bertujuan untuk menganalisis perkembangan pembelajaran dan hambatan yang dialami pondok pesantren Nahdlatul Ulama di Kabupaten Bekasi setelah masa pandemi Covid-19 dari aspek kurikulum, fasilitas, dan SDM. Penelitian ini menggunakan pendekatan kuantitatif. Subjek penelitian adalah santri dan pengasuh dari tiga Pesantren NU yang ada di wilayah Kabupaten Bekasi yaitu: Yapink, Pesantren Nurul Huda dan Pesantren Motivasi Indonesia. Metode sampling yang digunakan pada penelitian ini adalah metode Stratified Random Sampling dan Systematic Random Sampling dengan komposisi proporsional. Ukuran sampel yang diambil adalah sebanyak 320 santri dengan error sampling = 0.05, proporsi = 0.5, nilai standar distribusi normal pada taraf 5% yaitu $z = 1.96$. Dari hasil pengujian, diperoleh kesimpulan bahwa kualitas pembelajaran santri dimasa new normal secara umum masih cukup rendah. Hambatan Pendidikan menjadi faktor yang membuat kualitas pembelajaran santri dirasa menjadi tidak maksimal. Hal ini akibat dampak dari Covid dengan diberlakukannya

pembelajaran jarak jauh, ekonomi keluarga yang terdampak dan meningkatnya harga fasilitas Kesehatan, namun dari sisi ketahanan dan kerentanan institusi sudah cukup baik.

Kata Kunci: *Covid-19, Pembelajaran Jarak Jauh, Pesantren*

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INTRODUCTION

Education is an aspect of human life that was affected during the Covid-19 pandemic because they had to carry out distance learning (Tanveer et al., 2020; Chang et al., 2021; Hayat et al., 2021). This will undoubtedly impact the learning quality because they must adapt the learning system and the limitations of distance learning facilities with technological devices (Ferri et al., 2020; Basar et al., 2021). The Covid-19 pandemic has also resulted in many students dropping out of school because of their parents' economic conditions and dissatisfaction with distance learning at home (Ministry of Education, Culture, Research, and Technology, 2021). In addition, distance learning may also result in violence against children when learning at home by their parents, who are impatient to accompany their children to study.

Social media such as WhatsApp for assignment distribution is a learning development after the Covid-19 pandemic (Nur, 2022). Besides WhatsApp, several other social media applications have become learning means options after the pandemic, such as Google for Education (Google Form, Google Classroom, Google Drive), YouTube, and Zoom Meeting (Putra, 2022). This learning trend cannot be avoided when education faces sophisticated technological developments (Assya'bani, 2022).

The use of technology in learning may sometimes result in reducing students' learning concentration due to social media addiction (She et al., 2023; Liu et al., 2023), but it can also increase students' learning motivation and even students academic achievement, as indicated by the increasing number of students continuing their studies to tertiary institutions (Firnando, 2022). This learning development is an innovative attempt by Islamic boarding schools to improve the quality of the learning process in Islamic boarding schools (Anggadwita et al., 2021).

Innovation and change must be made to maintain and improve the learning quality at Islamic boarding schools, along with the technological development and the spread of the Covid-19 pandemic. The successful experience of Islamic boarding schools in implementing learning innovations, revitalizing learning program objectives, and paying attention to health aspects will survive amidst the complex problems of modernization and global health issues (Prasetyo, 2022).

According to data from the Pusdatin Ministry of Health on July 26, 2021, the total confirmed cases of Covid-19 in children aged 0-18 years were 399,642, with 788 (0.2%) of the total cases of death. This figure shows the vulnerability of school-age children during the Covid-19 pandemic.

Islamic boarding school life has great potential for the spread and transmission of confirmed cases of Covid-19 due to the difficulty in applying the

use of masks for 24 hours, the difficulty in implementing a social distancing lifestyle, the limitations in implementing a clean lifestyle, and the location of the dormitory which is a limited place for all students (PPIM UIN Jakarta: 2021). LBMNU also issued a fatwa on the obligation to maintain social distancing to prevent the spread of the Covid-19 virus in all community activities, including congregational prayers and learning at schools or Islamic boarding schools. This fatwa aims to safeguard the safety of human life, which is related to the objectives of Islamic law being revealed (Mashuri, 2021 & Hamdi, 2022).

According to Rabithah Ma'ahid Islamiyah (RMI) of the Nahdlatul Ulama Executive Board, the death number of *kyai* (religious scholars) who care for Islamic boarding schools due to Covid-19 is 207 people. According to the Director of Early Education and Islamic Boarding Schools at the Ministry of Religious Affairs, the number of patients confirmed positive for Covid-19 among Islamic boarding schools is 4,328 students, 21 teachers, 2 Islamic boarding school employees, and 67 Islamic boarding schools in 13 provinces. In addition, the general chairman of the RMI PBNU, Abdul Ghafar Razin, also found that 110 Islamic boarding schools and 4,000 students were exposed to Covid-19, as well as 207 *kyai/nyai* who died allegedly due to Covid-19.

The Chairman of Rabithah Ma'ahid Islamiyah (RMI) of the Nahdlatul Ulama Board (PBNU), KH Abdul Ghaffar Rozin, revealed the various impacts of Covid-19 on the world of Islamic boarding schools. This was conveyed to reflect on the disaster of the pandemic in Islamic boarding schools. This impact is not only in education, but many aspects are affected in the pesantren world, namely technology, economy, and tradition. Moreover, the education principle in Islamic boarding schools relies heavily on the face-to-face method. This factor causes learning in Islamic boarding schools to be significantly disrupted, and virtual Distance Learning (PJJ) methods still need to be more effective.

The number of Islamic boarding schools under the auspices of the PBNU RMI nationally is 23,370 (Directorate of Elementary Schools, Ministry of Education and Culture, 2021), while the number of Islamic boarding schools under the auspices of the Bekasi's RMI PCNU chapter is 20 (RMI PCNU Bekasi Regency: 2021).

Among the Islamic boarding schools that have confirmed cases of Covid-19 are Pesantren Motivasi Indonesia (PMI), Setu, the Bekasi district, with a total of 35 students. Initially, there was one student who complained of symptoms of Covid-19 with shortness of breath. After tracking with Antigen Swabs, 34 others tested positive for Covid-19 (Bekasi News, 2021).

On the other hand, education in Islamic boarding schools cannot be equated with education in other schools. Islamic boarding school education must continue to be carried out by using face-to-face learning because the character of pesantren education cannot be replaced by a distance learning pattern (Fahham, 2020).

During the Covid-19 pandemic, Islamic boarding schools experienced educational barriers. Educational obstacles can be identified as matters that can hinder and complicate the educational process to achieve high-quality results. Some obstacles that can occur in learning are related to technology, finance, and pedagogy (Habibi, 2020). According to Brousseau (1997), three factors of learning

barriers include tactical barriers (due to teacher teaching), ontogeny barriers (mental learning readiness), and epistemological barriers (knowledge of students who have limited application contexts). The current learning barriers have been formed systemically for students, possibly because they do not attend class, do not study, or have difficulty digesting the learning material properly.

Islamic boarding schools also face conditions of institutional resilience during the pandemic. Resilience can also be considered consistent and adaptive in challenging conditions (Reivich & Shatté, 2002). In this study, resilience is defined as the extent to which an individual or an institution can survive and adapt to the dangerous conditions of the Covid-19 pandemic.

Internally, Islamic boarding schools have carried out students' resilience by exercising and maintaining cleanliness to protect themselves from Covid-19. Externally, they have collaborated with health institutions to obtain additional facilities and appropriate counseling to face the Covid-19 virus (Harahap, 2021). Students and teachers were also taught about the Covid-19 virus and how to protect themselves (Hassan, 2021; Sahu, 2020). In addition to instilling values and perspectives by implementing formal and non-formal education, Islamic boarding schools follow health protocols by establishing the Covid-19 task force (Zakiyah, 2021).

Institutional vulnerability is also a problem for Islamic boarding schools in dealing with pandemic conditions. Vulnerability measures the quality of something weak or easily hurt, influenced, threatened, intimidated, or attacked. Several scientific disciplines have standards for measuring vulnerability according to the background of the study (Gordon, 2020), but vulnerability can be generally drawn as something related to risk (Paul, 2014). Institutional vulnerability during a pandemic can be understood as a condition where a person or an institution is in a condition that is easily affected or disturbed by the conditions of the Covid-19 pandemic, which will paralyze the learning system in educational units.

Thus, this study will analyze the learning developments and obstacles experienced by NU Islamic boarding schools in Bekasi after going through the Covid-19 pandemic. It is essential to scrutinize various obstacles from the aspects of facilities, human resources, and curriculum to find patterns of development that can be carried out for better education in the future.

RESEARCH METHODS

In this study, the research participants were students from three NU Islamic boarding schools in the Bekasi district: Yapink, Pesantren Nurul Huda, and Pesantren Motivasi Indonesia. The choice of these three pesantren is related to the history of the establishment of the pesantren and the role of the *kyai* from the three NU pesantren in the Bekasi regency.

The sampling technique used in this study was Stratified Random Sampling and Systematic Random Sampling. The Stratified Random Sampling technique was used to distribute the student sample selection. The students (*santri*) were grouped into three strata based on the origin of the pesantren. Then, from each stratum, a sample of students was taken using the Systematic Random Sampling technique with a proportional composition.

The number of students sample used is based on the calculation procedure of the Estok Navitte Cowan formula (Estok, 2002) where the value of the proportion is $p = 0.5$, the standard value of the normal distribution is at the 5% level, namely $z = 1.96$ and the sampling error value is $E = 0.05$. With a total population of students in three Islamic boarding schools of $N = 1585$, the minimum sample size must be 310 students.

The following is the distribution of the number of samples for each Islamic Boarding School:

Table 1. Population Distribution and Research Sample

Boarding School	Population Size	Student Sample
Yapink	815	160
Pesantren Nurul Huda	646	126
Pesantren Motivasi Indonesia	124	24
Total	1585	310

The data used in this study is primary data in the form of subject opinions collected individually from respondents who are students and organizers of the Yapink, Pesantren Nurul Huda, and Pesantren Motivasi Indonesia. Data collection techniques were carried out using a questionnaire instrument with a closed-question model. Respondents were asked to give their perceptions on each statement according to the situation felt by the respondent. The form of the questionnaire is a 4-point Likert scale with a rating of 1 (strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly agree) for positive statement items. As for negative statement items with rating categories 1 (strongly agree), 2 (agree), 3 (disagree), and 4 (strongly disagree).

The learning quality variable, which is the focus of discussion in this study, is a latent variable that cannot be directly measured. The measurement of latent variables is carried out by three dimensions: Educational Barriers, Institutional Resilience, and Institutional Vulnerability. Each of these dimensions needs to be measured by observation variables indicators arranged as question items. The following is an overview of the variables used in the primary research:

Table 2. Variable Operationalization

Variable	Dimensions	Indicator
Quality of Learning	Educational Barriers (Habibi, 2020)	<ul style="list-style-type: none"> • Distance Learning Policy • Community Economic Decline • Increasing Prices for Health Facilities
	Institutional Resilience (Whitman, 2013)	<ul style="list-style-type: none"> • Professionalism • Effectiveness • Innovation • Creativity
	Institutional Vulnerability (Paul, 2014)	<ul style="list-style-type: none"> • Internet limitations • Limited Facilities • Economic Limitations

The data analysis technique was used to describe the quality of learning by connecting indicators with latent variables is the Second Order Conformatory

Factor Analysis - Partial Least Square method, which processes data using SmartPLS 3.0 Software.

RESULTS AND DISCUSSION

Structural Modeling of Learning Quality in the Pandemic Period

In analyzing the learning quality during the Covid-19 Pandemic, it is measured by nine indicators derived from three dimensions, namely Educational Barriers, Institutional Resilience, and Institutional Vulnerability. The next step is to measure and test the main research topic, namely the Learning Quality as measured by three latent variables and nine indicators as observational variables.

1. Parameter Estimation Results and Path Diagrams

Below is the path diagram of the Second Order confirmatory factor analysis along with the estimated parameters using the Partial Least Square estimation method, which illustrates the relationship between the indicators and the three latent variables: Educational Barriers, Institutional Resilience, and Institutional Vulnerability among students. As well as the relationship of the three latent variables with the learning quality.

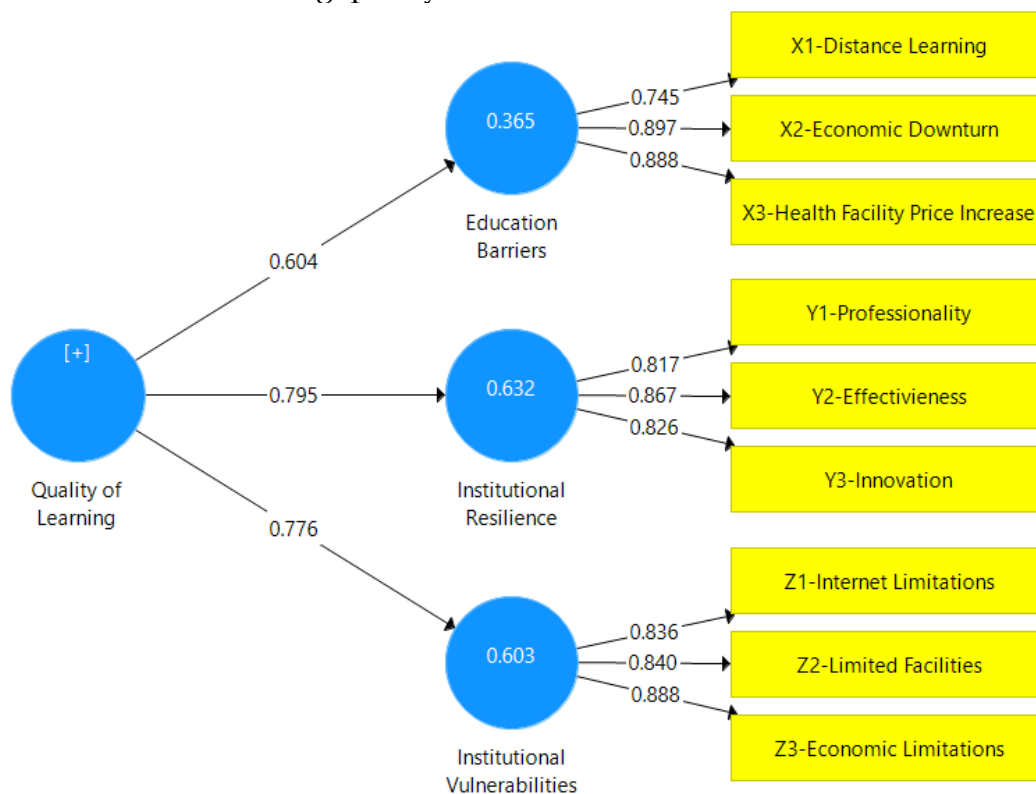


Figure 1. Path Diagram of the Estimation Results of Learning Quality Parameters

2. Outer Model Suitability Evaluation

The outer model is evaluated to see whether the observation variable measures its construct correctly. Testing the measurement model includes validity and reliability tests. Test the validity through the Convergent Validity test by looking at the value of the loading factor and the statistical value of calculating t. The following table shows the standardized loading factor values and t-count

statistics for the first-level measurement model (first-order CFA) and second-level (second-order CFA).

Table 3. Testing the Outer Validity of the Learning Quality Model

Variable	Loading Factor	T _{count}	Note
1stCFA			
Educational Barriers			
X1. PJJ Policy	0.745	20.062	Valid
X2. Economic Decline	0.897	63.266	Valid
X3. Increase in Facility Prices	0.888	56.329	Valid
Institutional Resilience			
Y1. Professionalism	0.817	29.539	Valid
Y2. Effectiveness	0.867	47.538	Valid
Y3. Innovation	0.826	33.813	Valid
Institutional Vulnerability			
Z1. Internet limitations	0.836	35.183	Valid
Z2. Facilities Limitations	0.840	38.215	Valid
Z3. Economic Limitations	0.888	59.990	Valid
2ndCFA			
Learning Quality			
Educational Barriers	0.604	8.384	Valid
Institutional Resilience	0.795	24.368	Valid
Institutional Vulnerability	0.775	23.471	Valid

Source: Results of data processing

Table 3 shows that all standardized factor loadings at the first-level measurement model (first-order CFA) and second-level measurement model (second-order CFA) have good validity. This is based on good validity criteria, where the tcount value of the factor loading \geq the critical value (tcount \geq 1.96) and the standardized loading factor value \geq 0.05. So, it can be concluded that the observation variables (indicators) in the first-level measurement model (first-order CFA) can measure each construct dimension of Educational Barriers, Institutional Resilience, and Institutional Vulnerability well. Likewise, with the second-level measurement model (second-order CFA), the dimensions of Educational Barriers, Institutional Resilience, and Institutional Vulnerability can measure the latent variable of Learning Quality well. Because all t-count values on factor loading \geq critical values (tcount \geq 1.96) and standardized loading factor values \geq 0.05.

Furthermore, reliability testing was carried out to see the consistency of measuring the observation variables together for each construct. The following shows the Composite Reliability (CR) and Discriminant Validity (AVE) values for each construct in the first-level measurement model (first-order CFA) and second-level measurement model (second-order CFA), as shown in Table 4.

Based on the outer model reliability test above, all Construct Reliability values from the constructs of Educational Barriers, Institutional Resilience, and Institutional Vulnerability exceed the threshold of 0.70, and the Variance Extracted value exceeds the threshold of 0.50. This indicates that the reliability level of the three constructs' first-level measurement (first-order CFA) is high. So, the items in each construct are consistent enough to measure the construct, likewise, with the second-level measurement model (second order CFA), where the constructs of

Educational Barriers, Institutional Resilience, and Institutional Vulnerability can measure the latent variable Learning Quality well and reliably.

Table 4. Testing the Outer Reliability of the Learning Quality Model

Construct	Composite Reliability (CR)	Discriminant Validity (AVE)	Note
1stCFA			
<i>Educational Barriers</i>	0.883	0.716	Good (<i>fit</i>)
<i>Institutional Resilience</i>	0.875	0.701	Good (<i>fit</i>)
<i>Institutional Vulnerability</i>	0.891	0.731	Good (<i>fit</i>)
2ndCFA			
<i>Learning Quality</i>	0.768	0.528	Good (<i>fit</i>)

Source: Results of data processing

3. Evaluation of the suitability of the Inner Model

After evaluating the outer model (measurement model), the next step is to evaluate the inner model (structural model). Evaluation of the suitability of the inner model or the entire model can be measured using Q-Square predictive relevance. The following will display the R-Square value of each dimension:

Table 5. Testing the Inner Model of Learning Quality

Construct	R-Square (R ²)
<i>Educational Barriers</i>	0.365
<i>Institutional Resilience</i>	0.632
<i>Institutional Vulnerability</i>	0.603

Source: Results of data processing

Then the Q-Square value is:

$$Q^2 = 1 - (1 - R_1^2)(1 - R_2^2)(1 - R_3^2)$$

$$Q^2 = 1 - (1 - 0.365)(1 - 0.632)(1 - 0.603)$$

$$Q^2 = 0.907$$

From the above results, the Q2 value is close to 1. Thus it can be concluded that the fit of the inner model/overall model is good.

Testing the Learning Quality Hypothesis during the Pandemic

Testing the research hypothesis was conducted to investigate how the three constructs of Educational Barriers, Institutional Resilience, and Institutional Vulnerability contribute to measuring the latent variable of the Learning Quality for students during a pandemic. The following is a recapitulation of hypothesis testing resulting from data processing, as shown in Table 6.

Based on Table 6, the three dimensions of Educational Barriers, Institutional Resilience, and Institutional Vulnerability contributed significantly to measuring and determining the Learning Quality for students in Islamic boarding schools during the pandemic. This can be seen from the p-value of less than 0.05, so H0 is rejected.

Table 6. Learning Quality Hypothesis Testing

No	Research Hypothesis	Loading Factor	P-Value	Decision	Conclusion
1	Educational Barriers contribute to shaping the quality of learning	0.604	0.000	H ₀ is rejected	Has a significant contribution
2	Institutional Resilience contributes to shaping Learning Quality	0.795	0.000	H ₀ is rejected	Has a significant contribution
3	Institutional Vulnerability contributes to shaping Learning Quality	0.776	0.000	H ₀ is rejected	Has a significant contribution

Source: Results of data processing

From the value of the loading factor, it can be explained the level of importance of each dimension in measuring the quality of learning. It was found that the Institutional Vulnerability dimension was the most important in shaping the quality of student learning during a pandemic. This can be seen from the largest loading factor value, namely 0.795. Then followed by the Institutional Vulnerability dimension (0.776), and finally the Education Barriers dimension (0.603).

Results and Findings of Santri Learning Quality during the Pandemic

1. Results and Findings of Santri Learning Quality

In structural modeling, the variable quality of student learning is measured by three main dimensions: Educational Barriers, Institutional Resilience, and Institutional Vulnerability, each measured by several indicators and question items. After obtaining the CFA model with SmartPls software, the score factors for dimensions and latent variables are obtained. The scoring factor is then converted or rescaled into a scale of 0 - 100 and then divided into four categories to facilitate interpretation. The following is an explanation of the findings on the variable of Learning Quality and its dimensions among students.

a. Educational Barriers

In the Education Barriers dimension, three indicators are used in its measurement: Distance Learning, Economic Decline, and Increase in Health Facility Prices. From the data processing results, information is obtained that the indicator of Economic Decline is the most important in measuring Educational Barriers. This can be seen from the most considerable loading factor value, 0.897. Then followed by the indicator of Increase in Health Facility Prices (0.888), and finally the Distance Learning indicator (0.746).

The following is an overview of Educational Barriers among students during the pandemic, as shown in Table 7. From this Table, the results show that most students believe that the obstacles to education during the pandemic were high. Namely, 42.75%, and those with very high views were as many as 22.90%. Meanwhile, students who view educational barriers during the pandemic as low and very low are 31.30% and 3.05%, respectively. Suppose the index is calculated on a scale of 0-100. In that case, the students' views regarding educational barriers during the pandemic are on a scale of 59.19, which means they are in a reasonably

high category. Based on the results of observations, the biggest obstacle faced by the students was the effect of the declining family economy. Implementing work-at-home policies and activity restrictions hurts the family economy, especially for parents who work in the non-formal sector, in addition to the increasing price of health facilities and the increasing family needs. Furthermore, there was an obstacle in implementing the learning-from-home policy in which teachers have difficulty controlling the students' quality of online learning (Mukarromah et al., W. 2021).

Table 7. Views of Santri regarding Educational Obstacles during the Pandemic

Code	Category	Frequency	Percentage
1	Very Low	8	3.05%
2	Low	82	31.30%
3	High	112	42.75%
4	Very High	60	22.90%
TOTAL		262	100%

Source: Results of data processing

Educational barriers occur due to several factors, including technological facilities when learning is carried out with online or internet learning media (Aziz, 2022). Increasing technological facilities can support learning with modern systems, such as Hybrid learning so that student's interest and enthusiasm for learning can increase, especially during the New Normal period (Hasanah, 2022). Graphically, the overview looks like Figure 2.

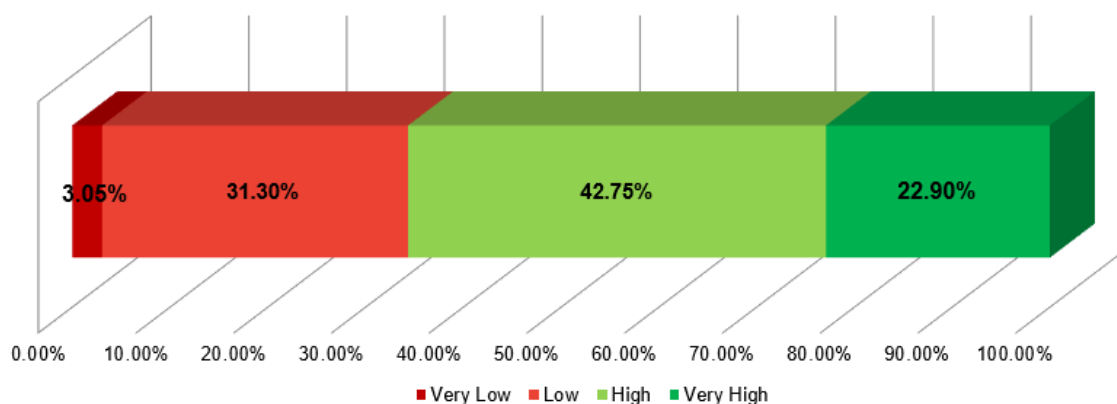


Figure 2. Santri's Views on Obstacles to Education during the Pandemic

b. Institutional Resilience

On the dimension of Institutional Resilience, three indicators are used in its measurement: Professionalism, Effectiveness, and Innovation. The data processing results show that the effectiveness indicator is the most important in measuring institutional resilience. This can be seen from the most considerable loading factor value, 0.867. Then followed by the Innovation indicator (0.826) and the Professional indicator (0.817).

The following is an overview of institutional resilience among students, as shown in Table 8.

Table 8. Views of Santri regarding Institutional Resilience

Code	Category	Frequency	Percentage
1	Very Low	7	2.67%
2	Low	82	31.30%
3	High	136	51.91%
4	Very High	37	14.12%
TOTAL		262	100%

Source: Results of data processing

From Table 8, the results show that most students have a good view of institutional resilience, namely 51.91%, and those with a magnificent view are 14.12%. Students with low views regarding institutional resilience are 31.30% and 2.67%, respectively. If the index is calculated on a scale of 0-100, the students' views regarding institutional resilience are 56.94, meaning they are in the pretty good category. In education, innovation in the teaching process must be carried out, along with the development of information technology and social change. During the COVID-19 pandemic, information technology is vital in educational interaction between teachers and students in the online learning process.

Additionally, using technology can help teachers create attractive learning materials that students can easily understand (Surtari, 2021). Many learning innovations, including the blended learning model, have continued to develop using technology during the pandemic. It is expected that these innovations will run well even though the COVID-19 pandemic has ended so that the learning process remains effective and teacher professionalism is maintained (König et al., 2020). Graphically, the overview looks at Figure 3.

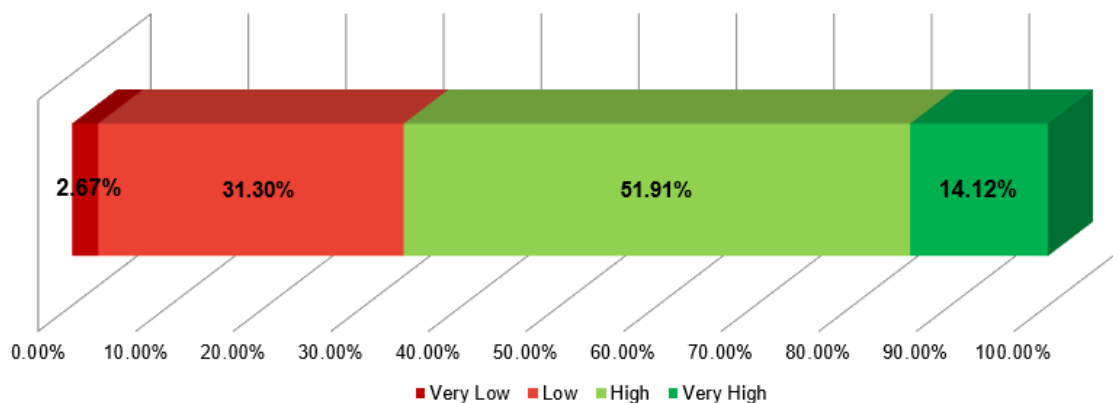


Figure 3. Views of Santri regarding Institutional Resilience

c. Institutional Vulnerability

On the Institutional Vulnerability dimension, three indicators are used in its measurement: Internet Limitations, Facility Limitations, and Economic Limitations. The data processing results show that the Economic Limitations indicator is the most important in measuring Institutional Vulnerability. This can be seen from the most considerable loading factor value, 0.888. Then followed by the Limited Facilities indicator (0.840) and the Internet Limited indicator (0.836).

The following is an overview of Institutional Vulnerability among students.

Table 9. Views of Santri regarding Institutional Vulnerability

Code	Category	Frequency	Percentage
1	Very Low	18	6.87%
2	Low	73	27.86%
3	High	136	51.91%
4	Very High	35	13.36%
TOTAL		262	100%

Source: Results of data processing

From Table 10, the results show that most students have a good view of institutional vulnerability, namely 51.91%, and those with magnificent views are 13.36%. In comparison, students with low views regarding institutional vulnerability are respectively 27.86% and 6.87%. If the index is calculated on a scale of 0-100, the students' views regarding institutional vulnerability are 54.96, meaning they are in the pretty good category.

The vulnerability of Islamic boarding schools in the economic field is a classic problem because the independence of some Islamic boarding schools still needs to be stable. Some Islamic boarding schools, such as Darul Falah Sidoarjo, still need assistance from various parties for economic independence programs (Rimbawan, 2012). The pesantren independence development program has also become the concern of Bank Indonesia by launching a particular program. There are three objectives of this program. First, tenacity and endurance. Second, strengthening business networking/silaturahmi. Third, strengthening knowledge and empowering the pesantren economy through the Halal Value Chain Ecosystem (Haryono, 2022).

Several Islamic boarding schools have pursued the economic sector as the main element supporting the sustainability of Islamic boarding schools; several Islamic boarding schools such as Nurul Jadid, Probolinggo have prepared special programs for students so that they can survive in society by excelling in the economic field such as entrepreneurial empowerment (Djumransjah, 2001).

This finding confirms that the role of *kyai* and religious leaders in dealing with the COVID-19 pandemic is vital (Aulia, 2020). *Kyai*, as a leader in Islamic boarding schools, must be able to show exemplary leadership in dealing with pandemic situations, such as providing adequate facilities and training to learn during a pandemic (Rahman, 2021). Graphically, the overview looks Figure 4.

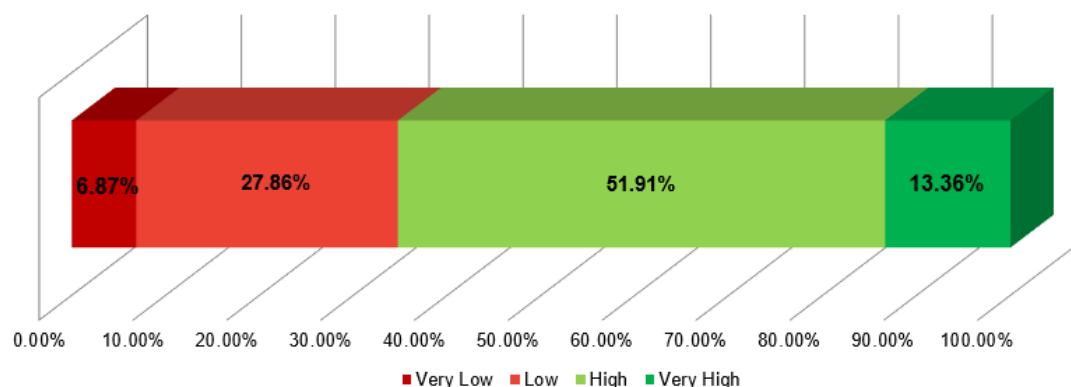


Figure 4. Couples of Santri related to Institutional Vulnerability

d. The Santri's Learning Quality during the Pandemic Period

In the variable of Santri's Learning Quality, three dimensions are used in its measurement: Educational Barriers, Institutional Resilience, and Institutional Vulnerability. From the data processing results, information was obtained that the Institutional Vulnerability dimension was the most important in shaping the quality of student learning during a pandemic. This can be seen from the most considerable loading factor value, namely 0.795. Then followed by the Institutional Vulnerability dimension (0.776) and the Education Barriers dimension (0.603). The following is a description of the learning quality among students.

Table 10. Santri's Learning Quality

Code	Category	Frequency	Percentage
1	Very Low	12	4.58%
2	Low	111	42.37%
3	High	119	45.42%
4	Very High	20	7.63%
TOTAL		262	100%

Source: Results of data processing

From Table 10, the results show that most students had low learning quality during the pandemic, namely 53.44%, and deficient learning quality, 11.07%. In contrast, students who felt the learning quality during the pandemic was good and excellent, respectively, are equal to 28.63% and 6.87%. Suppose the index is calculated on a scale of 0-100. In that case, the students' views regarding the learning quality during the pandemic are on a scale of 44.29, meaning they are in the unfavorable category.

Several Islamic boarding schools, such as the Al-Jayadi Islamic boarding school, experienced problems in the learning process during the pandemic (Muhajir, 2022). Economic limitations and media facilities are the main factors increasing Islamic boarding school learning during the pandemic.

Islamic boarding schools that have adequate human and material resources can maintain the quality of learning during a pandemic by innovating to make learning applications independently, such as the Al-Mahsuriyah Islamic boarding school, Kediri, which created an application called Be Smart as an online learning facility (Angraeni, 2021). Graphically, the overview looks at Figure 5.

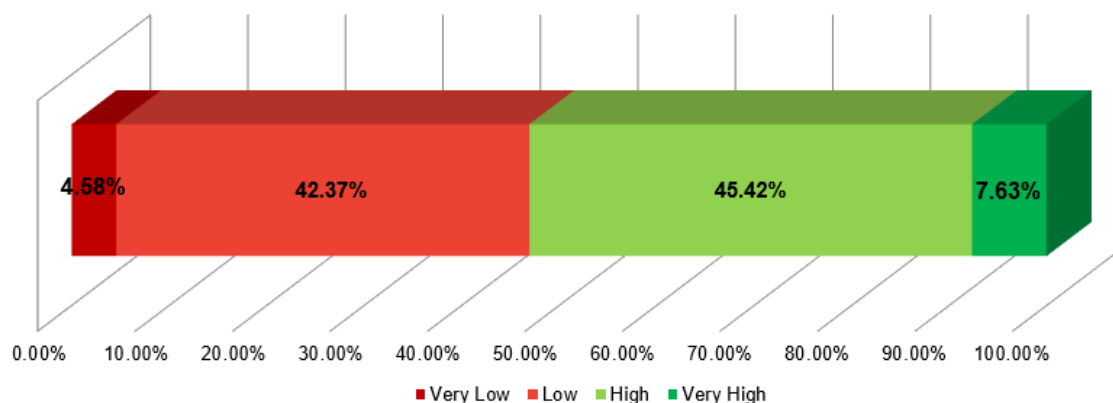


Figure 5. Quality of Santri Learning during the Pandemic

This research illustrates a paradigm shift regarding education in Islamic boarding schools, synonymous with character education, which can be achieved through face-to-face learning with examples (Trinova et al., 2022; Sellami et al., 2022). After experiencing the Covid-19 pandemic, Islamic boarding schools can prove the continuity of the online learning process without reducing the quality (Basuony et al., 2021). Islamic boarding schools also show that traditional education institutions can accelerate learning by improving technological facilities.

CONCLUSION

The students' learning quality in the new average era is generally relatively low. Educational Barriers are a factor that results in a low level of learning quality. This is due to the effect of the Covid-19 Pandemic with the implementation of distance learning, the affected family economy, and the increase in the price of health facilities. However, in terms of institutional resilience and vulnerability, it has been perfect where Islamic boarding schools have provided learning support facilities. Nonetheless, an adjustment in human resources in organizing education in the new average era is required to achieve maximum learning outcomes.

In the future, further research needs to be conducted, especially by examining various aspects of changes in learning systems and learning technology in Islamic boarding schools after the COVID-19 pandemic, to see the response of Islamic boarding schools to global changes in education.

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