

Implementation of MBKM Program and Modelling of Questionnaire Based on a Case of MBKM in Universitas Nahdlatul Ulama Surabaya

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Abstract: Technological developments during the covid19 pandemic prompted the enactment of a new era in education, namely Merdeka Belajar Kampus Merdeka (MBKM), where its implementation encourages universities to remain productive in implementing the tri dharma, namely teaching, research, and community service. The increase during the implementation in MBKM is an effort to improve all competence of students and lecturers at universities in synergizing with the world of work and the industrial world. In addition, there are 8 MBKM schemes designed to facilitate the implementation of a flexible learning curriculum for students. This study aims to describe implementation modelling and provide an overview of the extent of involvement of lecturers, staff, and students in the implementation of MBKM at Universitas Nahdlatul Ulama Surabaya (Unusa). This study focuses on categorical metric analysis where the analysis runs at the ranking level that is being analyzed by giving a high score or a low score using key influencers where the AI visualization used using ML.NET in running logistic regression on scoring with categorical analysis type in assessing each factor one by one, so that results are obtained in the presentation of data where the results clearly show a positive increase in the implementation of MBKM education at Unusa which is illustrated from the large and small impact model analyzed through the results of a questionnaire from the Unusa community that is relevant to the suitability of MBKM implementation with the directives Ministry of Education and Culture. as stated in Permendikbud no. 20 year 2021. Which is stated in the regulation of the Ministry of Education and Culture no. 20 of 2021. The data used in this study is the result of a survey on the implementation of MBKM on lecturers, staff, and student respondents with a total sampling of 220 lecturers, 113 students, and 3661 students. The percentage of the results achieved shows the major influence of the questionnaire, 36.53% of the lecturer respondents were divided into five response groups, 66.67% of students were divided into five respondents, and five response groups 75.45% groups of Admin's Educators were divided. The percentage of the results achieved included minor influence from the questionnaire, 36.53% of the lecturer respondents were divided into seven response groups, 63.03% students were divided into four response groups, and 63.64% Admin's Educators were divided into seven response groups.

Keywords: MBKM program, mayor influence, minor influence, logistic regression

INTRODUCTION

As an effort to prepare graduates from Universitas Nahdlatul Ulama Surabaya (Unusa) who are tough in facing the 4.0 revolution era, efforts are needed to increase student competence by linking and matching the world of education with the business world and the industrial world (Kemendikbud, 2020). The purpose of the policy of “Merdeka Learning-Inde-

pendent Campus” (MBKM) is the right to study for three semesters outside the study program which is useful for improving the competence of graduates, both soft skills and hard skills, to be more prepared and relevant to the needs of the times, preparing graduates as leaders. the future of a nation that is superior and has personality (Arifin & Muslim, 2021; Kemendikbud, 2020; Marijan, Soleha, Windarti, Budury,

Nurjanah, Wisnuanto, et al., 2020). Experiential learning programs with flexible pathways are expected to facilitate students to develop their potential according to their passions and talents (Marijan, Soleha, Windarti, Budury, Nurjanah, Dwijayanti, et al., 2020).

The MBKM activity has been regulated by Permendikbud Number 3 of 2020 concerning National Higher Education Standards: Universities are required to facilitate the rights for students (can be taken or not) to: a) Can take credits outside of tertiary institutions for a maximum of 2 semesters or the equivalent of 40 credits. b) Can take credits in different study programs at the same university for 1 semester or the equivalent of 20 credits (Baharuddin, 2021; Kemendikbud, 2020; Marijan, Soleha, Windarti, Budury, Nurjanah, Dwijayanti, et al., 2020; Marijan, Soleha, Windarti, Budury, Nurjanah, Wisnuanto, et al., 2020). Based on the importance of this MBKM activity, Unusa participated in activities carried out by the Directorate General of Higher Education, Ministry of Education and Culture by actively participating in the “Merdeka Learning-Independent Campus” (MBKM) program through the 2021 MBKM Grant which was won by the Faculty of Economics, Business and Digital Technology (FEBTD) (Humar Unusa, 2021), and the 2021 Indonesian Student Micro Credential Grant (KMMI) won by the Faculty of Teacher Training and Education (FKIP) (Kementrian Pendidikan Kebudayaan Riset dan Teknologi, 2021).

This MBKM activity provides an opportunity for Unusa students to gain learning experiences through *learning based projects*, increasing competence through various internships/work practices, and entrepreneurial activities. As for lecturers, this MBKM activity is carried

out with several supporting programs for skill improvement through lecturer competency certification and lecturer publications in national and international journals and proceedings (Marijan, Soleha, Windarti, Budury, Nurjanah, Dwijayanti, et al., 2020; Rodiyah, 2021; Rohiyatussakinah, 2021; Sopiensyah et al., 2022; Susetyo, 2020). The KMMI program carried out by FKIP Unusa is carried out through the *augmented reality (AR) learning media course* by providing students with skills to design interesting 3-dimensional learning media based on existing markers or conventional learning media. The method used in this method is *project based learning* which is carried out in 3 credits with LMS E-Sorogan (Hartatik, 2021).

The implementation of MBKM in each university certainly needs to be monitored and evaluated in order to determine the effectiveness of the implementation of MBKM towards improving the quality of students' soft-skills and hard-skills (Arifin & Muslim, 2021) (Nehe, 2021) while using online learning (Sulistiyani & Budiarti, 2021). Therefore, it is necessary to conduct research related to the evaluation of the MBKM implementation of Insitution. This objective focuses on analyzing the MBKM implementation model at Unusa in order to determine the optimal achievement of the MBKM program.

RESEARCH METHODOLOGY

Data Collections

The primary data of study was obtained through filling out questionnaires conducted by Unusa Lecturers, Admin's Educators and Students at the link <https://survey.spadadikti.id/>. The number of Unusa lecturers who took part in the filling was 220 people, the teaching staff

who filled in the filling were 113 people, and students were 3,657 people. The data obtained were then analyzed to obtain the MBKM implementation model at Unusa.

Data Analysis

In data analysis, using key influencers using ML.NET to run linear regression (Ahmed et al., 2019), using the same data transformation as categorical key influencers and using the SDCA regression algorithm (Shalev-Shwartz & Zhang, 2013).

In this research, key influencers basically using metric analysis by the use of measures and aggregates that are used as segment factors are evaluated in the analytical metric table to find out the factors that contribute to high rankings (major influences) and low rankings (minor influences) based on each question's role as a variable used by providing a value display. in each category. With metric analysis, the correlation test is carried out with respect to the target if the target is continuous, then the use of Pearson correlation is chosen, if the target is categorized then the biserial point correlation test in this case uses key influencers where the AI visualization used uses ML.NET in running logistic regression on giving a score with the type of categorical analysis in assessing each factor one by one so that a high, neutral and low score is produced. The statistical test used in this determination uses the Wald test with a visual p-value of 0.05 as the threshold.

In this case, the algorithm looks at how the questions change based on the reviewer's factors, such as knowledge related to MBKM or the effect on soft skills and hard skills. In this case, the impact of having a good MBKM implementation on the results of respondents from lecturers, students, and teaching staff can be seen.

RESULT AND DISCUSSION

The MBKM activities carried out by the Management, Accounting and Information Systems Study Programs have referred to the KPI that has been implemented by the Ministry of Education and Culture, namely meeting the Key Performance Indicators (IKU) 1 through efforts to produce graduate students who are trying through entrepreneurial training and webinars, IKU 2 compiles the MBKM curriculum and guides students to actively participate in competitions at the national level, IKU 4 improves the skills of lecturers through participation in certification to increase educator competence, IKU 5 relates to cost assistance for lecturer publications in scientific articles both national and international conferences, and national journals or internationally reputed, IKU 7 enhances student competence through project-based courses which can be directly implemented in knowledge along with internships in industries such as Pelindo and Indosat (Kemendikbud, 2020; Marijan, Soleha, Windarti, Budury, Nurjanah, Dwijayanti, et al., 2020; Marijan, Soleha, Windarti, Budury, Nurjanah, Wisnuanto, et al., 2020; Rohiyatussakinah, 2021).

Based on data taken from a survey containing questionnaires conducted on respondents including lecturers, admin's educators and students.

In the results of data with lecturer respondents, there are 25 questions with a total of 220 lecturers as respondents.

From the 25 questions, 3 questions were obtained that had a major influence on the results of the lecturer's response, where the data contributed greatly to the data obtained on the question scores and the results of the lecturer respondents.

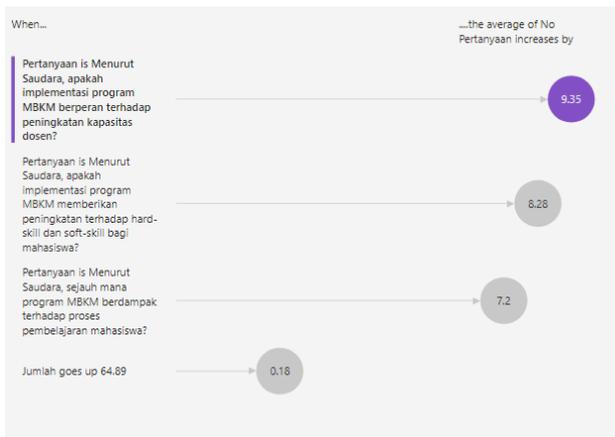


Figure 1 Questions that Have Major Influences from the Results of Lecturer Respondents

The three selected questions that have a major influence include:

1. In your opinion, does the implementation of the MBKM program play a role in increasing the capacity of lecturers?
2. In your opinion, does the implementation of the MBKM program improve students' hard-skills and soft-skills?
3. In your opinion, to what extent does the MBKM program have an impact on the student learning process?

Accord to the major impact on the 3 questions above, it can be concluded that in the selected question 1, the result of the increase in impact is 9.35 points over the other 25 questions. on the selected question 2, the result of an increase in the impact of 8.25 points above the other 25 questions, while the selected question 3, has an increase in the impact of 7.2 points over the other 25 questions.

The questions related to the role of MBKM implementation in increasing the capacity of Unusa lecturers who have major influences, the percentages are obtained as follows:

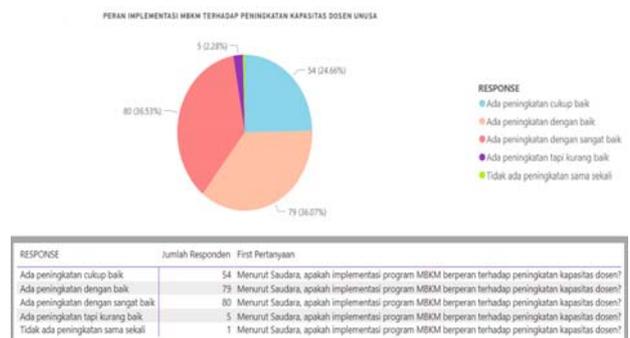


Figure 2 Results of Analysis of the Role of MBKM Implementation in Increasing the Capacity of Unusa Lecturers

From Figure 2, the results of 220 lecturer respondents who filled out the MBKM questionnaire. 36.53% of lecturer respondents stated that there was a very good improvement from the implementation of MBKM, while 36.07% stated that there was a good improvement, 24.66% of the improvement was quite good and 2.25% stated that there was an improvement but not good. Meanwhile, 1 lecturer respondent stated that there was no improvement at all in the implementation of MBKM.

The results of the distribution of data on the questions and the number of lecturer respondents can be seen in Figure 3.



Figure 3 Results of the Distribution of Unusa Lecturer Respondent Data

Based on the 25 questions obtained 1 question that has a minor influence on the results of

the lecturer's response, where the data contributes very little to the data obtained on the value of questions and the results of lecturer respondents.

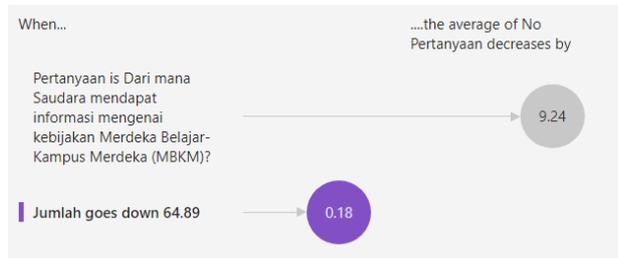


Figure 4 Questions that Have Minor Influences from the Results of Lecturer Respondents

One question that has a minor impact is “Where did you get the information about the independent learning-independent campus (MBKM) policy?”

Accord to the 25 questions given to the lecturer respondents, it was found that a minor effect was obtained on the choice question no.1 minor which had a decreasing impact of 9.24 points on the other questions.

From questions related to how Unusa lecturers get information related to MBKM policies that have minor influences, the percentages are obtained as follows:

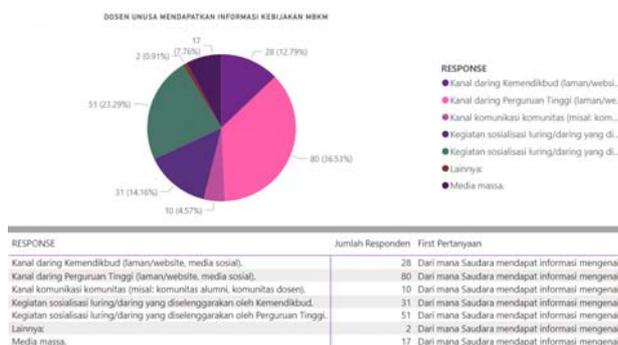


Figure 5 Results of Analysis of Unusa Lecturers Obtain MBKM Policy Information

Based on Figure 5, the results of 220 lecturer respondents who filled out the MBKM

questionnaire. 36.53% of lecturer respondents stated that they received information on MBKM policies from higher education online channels (pages/websites, social media), 23.29% stated that lecturers received information on MBKM policies from offline/online socialization activities organized by universities, 14.16% came from offline outreach activities. Organized by the Ministry of Education and Culture and 12.79% stated that they came from the online channel of the Ministry of Education and Culture. The rest was obtained from mass media 7.76%, community communication channels 4.57% and 0.91% obtained from others.

In the results of data with student respondents, there are 22 questions with a total of 3661 students as respondents. From the 22 questions obtained two questions that have major influence on the results of student response, where data tersebut which contribute greatly to the data obtained on the value of the question and the results of student respondents.



Figure 6 Questions that Have Major Influences from the Results of Lecturer Respondents

Two questions that have a major influence include:

1. In your opinion, how important are MBKM activities to prepare for the post-campus period?
2. In your opinion, how much of an increase in soft-skills did you get after you participated in

MBKM activities in developing competence/ skills as a preparation for work after graduation?

Based on the major impact on the 2 questions above, it can be concluded that the selected question 1 resulted in an increase of 6.57 points over the other 22 questions. on the selected question 2, the result of an increase in the impact of 5.48 points above the other 22 questions was obtained.

Accord to the question related to the comparison of conditions before the MBKM program, how significant is the improvement in the quality of graduates produced to face the post-campus world (the world of work, continuing college, self-employment)? which has major influences, obtained from the following percentages:



RESPONSE	Menurut Saudara, seberapa penting kegiatan MBKM untuk persiapan menghadapi masa paska kampus?	
Sangat Penting		2256
Penting		721
Cukup Penting		381
Tidak Penting		21
Kurang Penting		5

Figure 7 The Importance of MBKM Activities for Unusa Students in Preparation for the Post-Campus Period

Based on Figure 7, the results of 3661 student respondents who filled out the MBKM questionnaire. 66.67% of student respondents stated that MBKM activities were very important in preparation for the post-campus period, 21.31% stated that they were important, 11.26% stated that they were quite important. As for the rest, 0.62% stated that MBKM activities were not important, and 0.15% stated that they were less important.

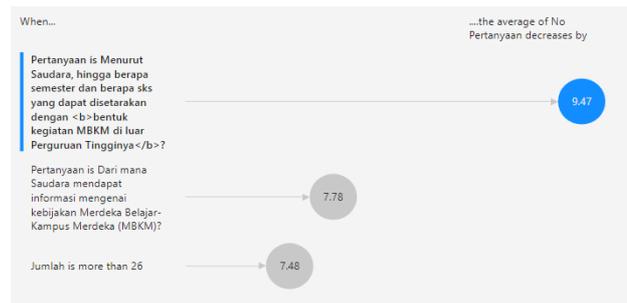


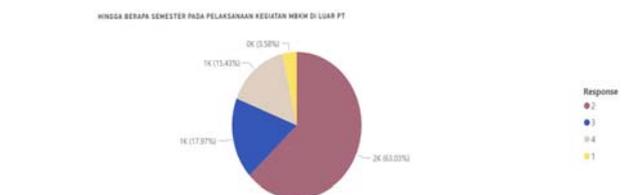
Figure 8 Questions that Have Minor Influences from the Results of Lecturer Respondents

The two questions that have a minor influence include:

1. In your opinion, how many semesters and how many credits can be equated with the form of MBKM activities outside the university?
2. Where did you get information about the Independent Learning-Independent Campus (MBKM) policy?

Based on the minor impact on the 2 questions above, it can be concluded that in the selected question 1, the result of the increase in impact is 9.47 points above the other 22 questions. on the selected question 2, the result of an increase in the impact of 7.78 points above the other 22 questions was obtained.

The questions related to up to how many semesters in the implementation of MBKM activities outside universities identified as having minor influences, the percentages are obtained as follows:



Response	Jumlah	Pertanyaan
2	2133	Menurut Saudara, hingga berapa semester dan berapa sks yang dapat disetarakan dengan bentuk kegiatan MBKM di luar Perguruan Tinggi?
3	608	Menurut Saudara, hingga berapa semester dan berapa sks yang dapat disetarakan dengan bentuk kegiatan MBKM di luar Perguruan Tinggi?
4	522	Menurut Saudara, hingga berapa semester dan berapa sks yang dapat disetarakan dengan bentuk kegiatan MBKM di luar Perguruan Tinggi?
1	121	Menurut Saudara, hingga berapa semester dan berapa sks yang dapat disetarakan dengan bentuk kegiatan MBKM di luar Perguruan Tinggi?

Figure 9 Analysis Results from Unusa Students related to How Many Semesters of Implementation of MBKM Activities Outside Higher Education

Figure 9 explained the results of 3661 student respondents who filled out the MBKM questionnaire. 63.03% of student respondents stated that up to 2 semesters of MBKM implementation outside of tertiary institutions, 17.97% of student respondents stated that up to 3 semesters of MBKM implementation outside of universities, 15.43% of student respondents stated that up to 4 semesters of MBKM implementation outside of Universities. As for the rest, 3.58% of student respondents stated that up to 1 semester of MBKM implementation outside universities.

The results of the distribution of data on questions and the number of student respondents can be seen in Figure 10.

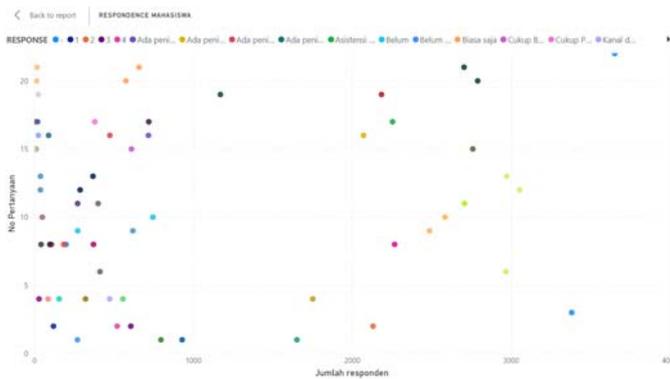


Figure 10 Results of Data Distribution of Unusa Student Respondents

In the results of the data from admin’s educators that called “Tendik” respondents, there are 26 questions with a total of 113 education personnel as respondents. From the 26 questions, there were 3 questions that had a major influence on the results of the tendik responses, where the data contributed greatly to the data obtained on the value of the questions and the results of the admin’s educators or tendik respondents.

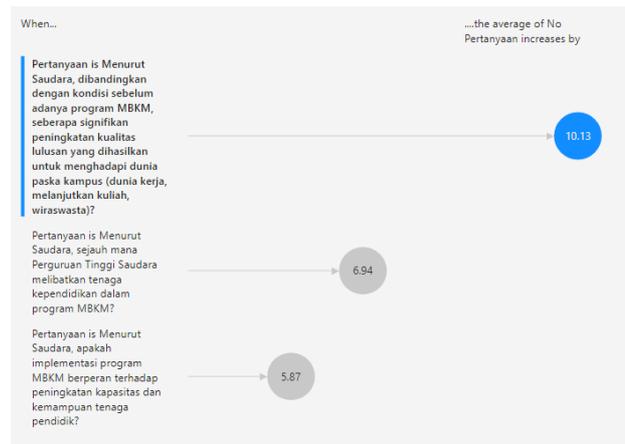


Figure 11 Questions that Have Major Influences from the Results of Education Personnel Respondents

The three selected questions that have a major influence include:

1. In your opinion, compared to conditions before the MBKM program, how significant is the improvement in the quality of graduates produced to face the post-campus world (the world of work, continuing college, self-employment)?
2. In your opinion, to what extent does your university involve education personnel in the MBKM program?
3. In your opinion, does the implementation of the MBKM program play a role in increasing the capacity and ability of admin’s educators?

From the major impact on the 3 questions above, it can be concluded that in the selected question 1, the result of an increase in the impact of 10.13 points above the other 26 questions was obtained. on the selected question 2, the result of an increase in the impact of 6.94 points over the other 26 questions was obtained, while in the selected question 3, it had an increase in the impact of 5.87 points over the other 26 questions.

From questions related to the comparison of conditions before the MBKM program to

improving the quality of graduates produced in dealing with the post-campus world (the world of work, continuing studies, entrepreneurs) which have major influences, the percentages are obtained as follows:

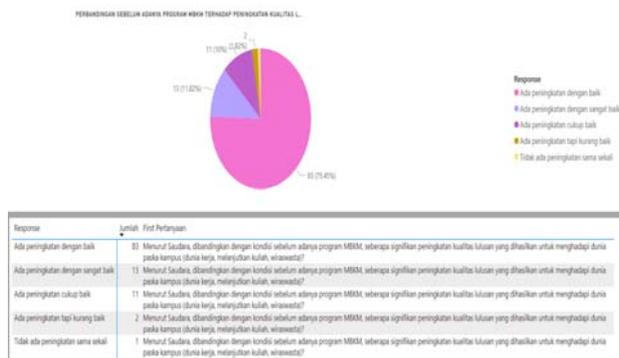


Figure 12 Results of Comparative Analysis of Conditions Prior to the Program MBKM towards Improving the Quality of Graduates Produced to Face the Post-Campus World

Figure 12 revealed the results of 113 admin’s educators who filled out the MBKM questionnaire. 75.45% of teaching staff respondents stated that there was a good improvement in post-campus graduates from before the MBKM program. Meanwhile, 11.82% stated that there was a very good increase in post-campus graduates from before the MBKM program. As for the rest, 10% increase is quite good, 1.82% there is an increase but not good and 0.91% is obtained from 1 respondent who states there is no improvement at all.



Figure 13 Questions that Have Minor Influences from the Results of Education Personnel Respondents

Two questions that have a minor impact include:

1. Where did you get the information about the independent learning-independent campus (MBKM) policy?
2. In your study program, how many credits of courses are recognized/equalized with the form of MBKM learning activities?

The minor impact on the 2 questions above, it can be concluded that the selected question 1 resulted in an increase of 10.34 points over the other 22 questions. On the selected question 2, the result of an increase in the impact of 5.97 points above the other 22 questions was obtained.

The questions related to get the information about the independent learning-independent campus (MBKM) policy which have minor influences, the percentages are obtained as follows:

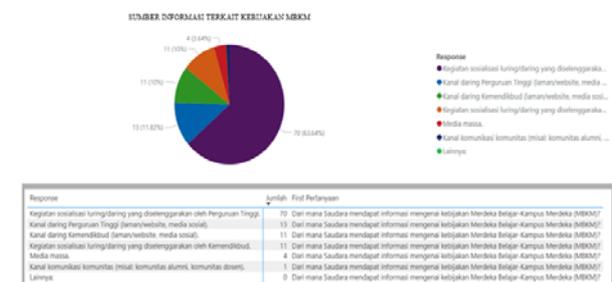


Figure 14 Results of Analysts for Unusa Admin’s Educators Obtaining Information MBKM Policy

Figure 14 obtained the results of 113 admin’s educators who filled out the MBKM questionnaire. 63.64% of admin’s educators respondents stated that they received information on MBKM policies from offline/online socialization activities organized by universities, 11.82% stated that admin’s educators received information on MBKM policies from universities’ online channels (websites/websites, social media), 10% came from online channels. Ministry of Education and Culture (websites/websites, social media) and offline/online so-

cialization activities organized by the Ministry of Education and Culture. As for the rest, 3.64% were obtained from mass media, 0.91% of community communication channels and 0% were obtained from others.

The following are the results of the distribution of data on the questions and the number of respondents of education personnel can be seen in Figure 15.

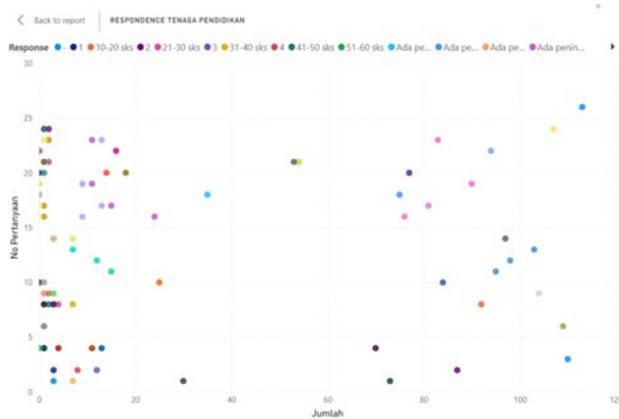


Figure 15 Results of the Distribution of Data on Respondents of Education Personnel of Unusa

CONCLUSION

Based on total sampling of 220 lecturers, 113 students and 3661 students were obtained the percentage of the results achieved included the major influence of the questionnaire, 36.53% of the lecturer respondents who were divided into 5 response groups, 66.67% of students who were divided into 5 respondents into 5 response groups 75.45% groups of admin’s educators were divided. The percentage of the results achieved included minor influence from the questionnaire, 36.53% of the lecturer respondents who were divided into 7 response groups, 63.03% students were divided into 4 response groups and 63.64% admin’s educators were divided into 7 response groups.

The results of visualization exposure make the level of influence of the factors worthy of being considered compared to other factors that do not have a major influence or minor influence. This depiction pattern is expected to provide a reasonably representative consideration of data points in concluding the pattern with the results of filling out a questionnaire on the questions given in determining the impact factors that are considered to have a significant influence on the MBKM program at Unusa.

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