

Assessing the Participants of UNDANA Teacher Pro Profiles with Digital-Based Learning Model; Cat. 1, 2022

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Abstract: This study aims to profile teachers in the 1st category of Undana Teacher Professional Education in 2022 using a digital-based learning model. The expected results are the right model in evaluating digital-based learning models to be ready to become professional teachers, graduates from Category I Teacher Professional Education Participants in 2022 at Nusa Cendana University, Kupang, East Nusa Tenggara. Conditions in the field show that student learning strategies and activities play a very important role in digital-based learning, where students sometimes lack concentration and are less skilled in learning activities with digital-based models. The research uses qualitative methods and aims to evaluate the effectiveness of digital-based learning models in preparing teachers for professionalism. Research innovations at the theoretical level, for the development of studies on population mobility, who work as teachers, practical levels for regions of origin, the potential for remittances of migrants between regions in NTT, and their impact on destination areas. The design of this study was carried out in two stages within a span of 1 year of research procedures in the first semester: field observations which were exploratory studies of learning strategies for In-service PPG students in Kupang City and its surroundings. In various study programs where learning uses Digital-based. Followed by the preparation of a draft field observation report. Seminars or workshops around the effect of full IT/Digital use between learning strategies and Digital mastery which are still minimal/insufficient in the 2 (two) PPG Study Programs referred to above and with reporting. The second semester, Conducting Interactive Analysis of the Milles and Humberman model where IT media learning strategies with Online learning strategies affect the ability to learn to operate a Computer and continue with paying attention to Digital students' high ability to operate Computers / IT in lectures at PPG Undana.

Keywords: Learning strategy; IT; Digital learning; Online

1 Introduction

The need for teachers in the East Nusa Tenggara (NTT) region continues to grow in accordance with the needs for the development of human resources which are very widely distributed. The mobility of the NTT population is an ongoing population phenomenon, because humans have needs that continue to grow, for example, it is not possible to fulfill them in their place of origin, human resource development, it will be able to develop in several other areas in the NTT region, to be able to participate in developing existing human resources in the NTT regions. Ferreira et al [7] defined that economic motives and work opportunities are important factors that can explain this mobility. NTT people are residents who come from islands scattered in the NTT archipelago, for example here Timor Island, Flores Island and Sumba Island and there are dozens of other islands in NTT such as Rate, Sabu, Alor and others, all on islands that located in the archipelago area of NTT Province. In general, the people of NTT have the characteristics of high mobility, like to go abroad, driven by a high work spirit.

The mobility of the people of NTT is quite extensive throughout the country, and is almost evenly distributed in various regions of NTT, especially in the destinations at close proximity. The city of Kupang was not spared from the target of movement of NTT people, as workers in the formal sector such as teachers, government ASNs, many held important positions, as well as in the non-formal sector for entrepreneurship, as large and small traders, besides that many of them pursued work in the informal sector [5].

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There are indeed many migrations of NTT residents in Kupang City who are pursuing formal sector businesses as teachers/ASN located in Formal and Informal Schools activity centers such as foundations, in areas/areas near settlements and public facilities such as offices and school complexes. What are the social environmental factors that drive people to leave their place of origin in the destination area as workers in the formal and/or informal sectors. It is interesting to study how the population moves in NTT as workers in the formal-teacher/Asn and informal sector, especially as Asn and/or entrepreneurs as households.

Migration of residents in the NTT region who came from various islands spread across the city of Kupang so ASN, in this case being a teacher [1], chose a formal sector job as a teacher as the main livelihood [8]. The formal sector jobs that are occupied include, as a teacher, in various schools and or foundations in the development of human resources, to be able to participate in building and developing human resources. Hakim [9] defined that the learning model developed as a dominant teacher is driven by the ability to operate technology in work in the area of origin, which is characterized by job opportunities that are difficult to obtain, which do not provide sufficient income, due to physical environmental factors and technological support [2]. The physical environment of the place of origin, such as the development of learning technology and IT facilities in the area of origin is very minimal, where IT support facilities in the area of origin are inadequate, so efforts to develop teacher human resources are difficult, a limited consumptive IT environment can also cause people not to live in the area of origin, due to technological developments that do not support [4].

In the destination area, economic activities and technological developments such as IT as the selected ASN / teacher really support formal sector jobs. ASN teachers as formal sector workers are rather difficult to do if they are not supported by technology, so they can develop various learning models to be able to follow applicable regulations, capital, expertise, skills and government regulations Law Number 14 of 2005, so that they become the choice of many people.

2 Method

A. Research Design

The research procedure was carried out in stages: field observation which was an exploratory study and reduced data on the abilities of PPG teacher professional education graduates in Category 1 positions at LPTK Undana Kupang. Just carried out path analysis both directly and indirectly interactively, then continued with the preparation of the research report draft with its reporting, while the description of the Research Fishbone Diagram is as follows:

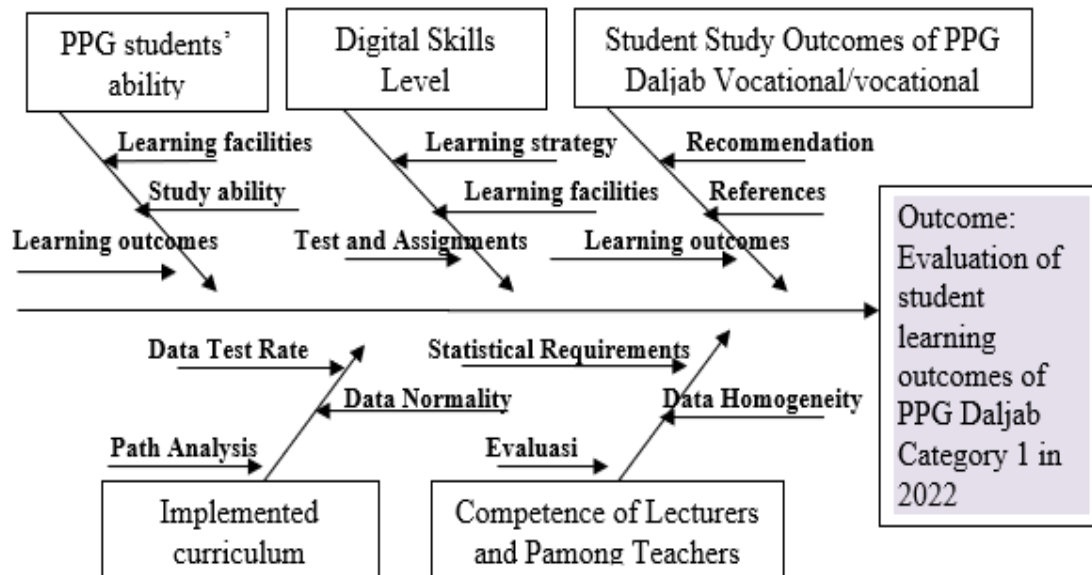


Fig. 1: Fishbone Diagram of Research for 1 Year

B. Output Process and Measurable Indicators

The output process and measurable indicators are arranged between variables as follows:

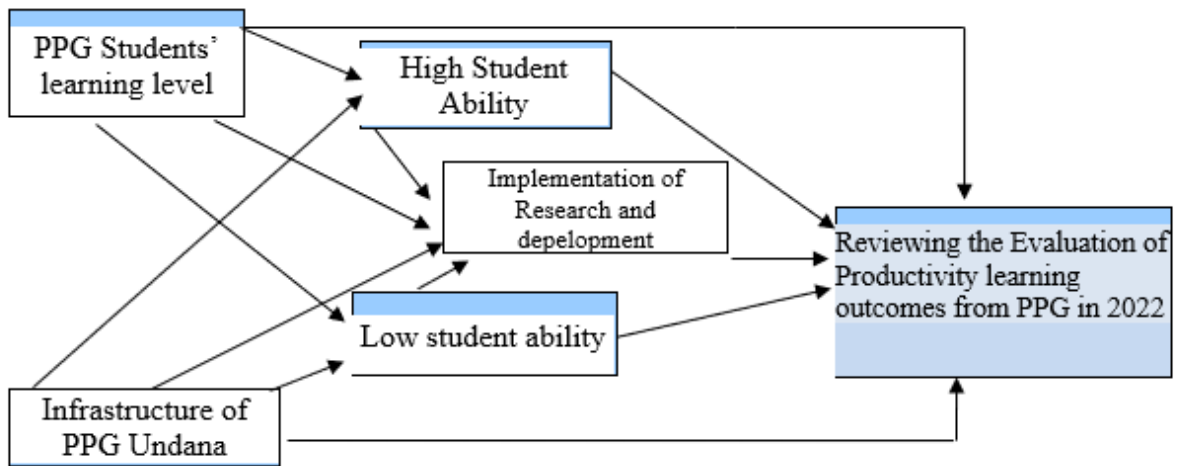


Fig. 2: The Theoretical Outcome Model of Relationships Between Measured Variables

This study aims to reveal what technological environmental factors push professional teacher workers to leave their areas of origin, what factors are the attractiveness of IT-based learning models in the city of Kupang. This research also wants to reveal further that formal workers are teachers and pursue other formal sector jobs, which is their choice. The research method applied is a qualitative research method, so the analysis is also qualitative in nature. According to Herman et al. [10], qualitative analysis may utilize a variety of specialized nonmathematical techniques. The analysis model used is an interactive analysis model [12].

C. Conceptual Framework

Miles and Huberman's analysis model divides the analysis into four parts, including: data collection, data reduction, data presentation and conclusion drawing or data verification.

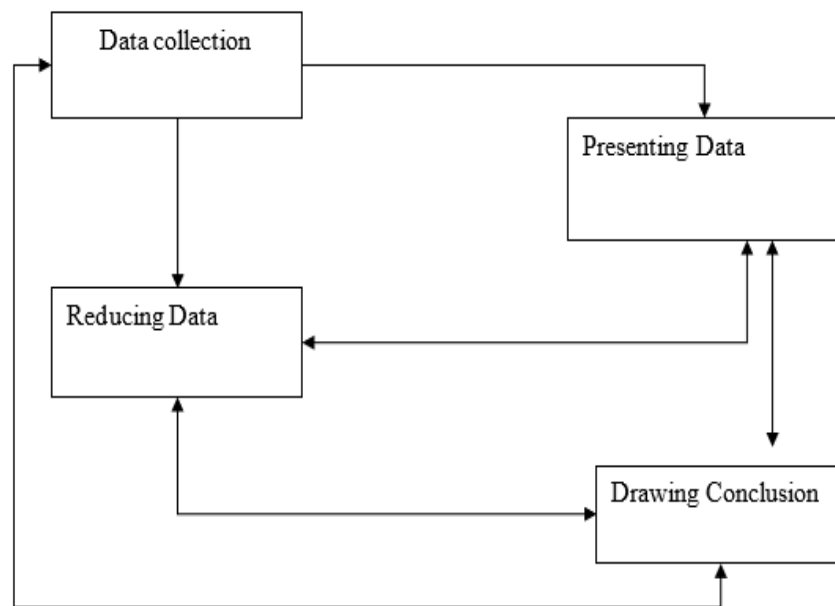


Fig. 3: Interactive Analysis Model Diagram

D. Data collection technique

This qualitative research used techniques based on research objectives (purposive sampling) and snowball sampling

(snowball sampling). The research subjects were teachers who attended Category 1 In-service Teacher Professional Education from the NTT region who had lived and been teachers in the city of Kupang for at least five years. The jobs they occupied were teachers in office complexes or schools, which is his main job. The number of research subjects was based on the snowball technique in which the research subjects pointed to other teacher friends who had relatively the same characteristics, both length of stay and work.

E. Data validity

In qualitative research, internal validity is expressed in terms of credibility; external validity expressed in transferability; reliability expressed in dependability; while objectivity is stated in confirmability (Silverman, 1993). To meet the credibility of the researcher will increase the time to collect data with data triangulation techniques, dig up the data to the saturation level. Checking the reliability of research data will be carried out by means of an audit trial, which in this case is carried out by the main researcher or members of the researcher [3]. In this activity, checking is carried out through discussion cloths with the data collection team. Other efforts were made to reduce suspicion of data reliability by presenting detailed, clear, and accurate records, so as not to allow multiple interpretations. The use of tools in records such as recorders or photographic devices will help and simplify data collection.

F. Research Instruments

Data collection using observation and interview instruments. Observations are observations in the field to understand fundamentally about culture, while interviews are open-ended questions with a small sample size [15; 14]. The research design is still temporary and will develop after the researcher enters the research object. Qualitative research assumes that realistic is holistic, comprehensive and cannot be separated into research variables. Researchers prioritize events as they are, so that in qualitative research the researcher is the main instrument in this study. Therefore, researchers must learn to use learning technology, intimate communication through respondents to communicate between subjects with subjects. In certain situations, researchers also position themselves as subjects who learn something from respondents. This method will further open the openness of respondents to express what is thought, known, felt, and desired.

G. Data collection

Data collection was carried out by the main researcher with members and assisted by several Undana students who came from the teachers who were the research subjects, who quite understood the language of the teachers as a means of communication and culture in the NTT region. Data collection was carried out through in-depth interviews with research subjects, continuous observations of research subjects in building teacher performance and also studies of existing documentation as supporting data in subjects carrying out IT-supported learning in Kupang City. In order to obtain the data, recording was carried out with a tape recorder/ HP to be able to record data that had not been recorded during the data collection process. This is in accordance with the opinion of Moleong [13] which states that there is data recording through a tape recorder and can also be done by self-recording by the researcher [11].

H. Research Data Sources

Primary data sources are research subjects who are observed and interviewed supported by documentary data sources. To determine the sample selected purposive sampling and snowball sampling. Purposive Sampling means that the sample is selected according to the purpose of the research, and snowball sampling, which is asking the respondent to appoint another person who can provide information. Furthermore, the appointed respondent was also asked to appoint another person and so on to provide the necessary information.

I. Research Data Analysis

In qualitative research, because the data obtained is more qualitative in nature, the data analysis technique used is qualitative analysis. Purba [17] explained that qualitative analysis may utilize a variety of specialized nonmathematical techniques. The data analysis used in this study follows the Interactive analysis model proposed by Miles and Huberman [12], which divides the analysis into four parts, including; data collection, data reduction, data presentation, and conclusion drawing or data verification [6, 16].

Sources and data collection techniques in research are adjusted to the objectives and focus of the research. In qualitative research, the data sources are selected by prioritizing the emic perspective, meaning that they are concerned with the views of the respondents. The process of data analysis has started since: 1. Data collection: by interviews, observation

and documentation, 2. Data reduction: done by the process of: selection, concentration, simplification, abstraction and data transformation. 3. Presentation of Data: can be in the form of: writing, matrix, graphics, flowcharts or tables and 4. Drawing conclusions: starting from the initial data collection to the end and verification is carried out so that the conclusions are comprehensive and intact.

3 Result and Discussion

The answers obtained from the informants can be described in the form of descriptive statistics as follows:

Table 1: Frequency Distribution of Student Learning Outcomes

No	PPG Students' Learning Outcomes by LPTK Undana	Expertise Competency								Frequency (Respondents)	(%)
		Frequency (Respondents)									
		Department of Primary Teacher Education	Department of Mathematics Education	Department of Counseling Guidance	Department of Pancasila and Citizenship Education	Department of Chemistry Education	Department of Physics Education	Department of Economics Education	Department of Biology Education		
1	Quality of Achievement of PPG Students	13	1	1	1	1	1	1	1	1	79 %
2	Quality of PPG Students' Learning Outcomes	13	1	1	1	1	1	1	1	1	90 %

Notes:

1. PGSD (Pendidikan Guru Sekolah Dasar) is the Department of Primary Teacher Education with 440 students.
2. PM (Pendidikan Matematika) is the Department of Mathematics Education with 35 students.
3. BK (Bimbingan Konseling) is the Department of Counseling Guidance with 24 students.
4. PPKN (Pancasila dan Pendidikan Kewarganegaraan) is the Department of Pancasila and Citizenship Education with 35 students.
5. PK (Pendidikan Kimia) is the Department of Chemistry Education with 34 students.
6. PF (Pendidikan Fisika) is the Department of Physics Education with 20 students.
7. PE (Pendidikan Ekonomi) is the Department of Economics Education with 34 students.
8. PB (Pendidikan Biologi) is the Department of Biology Education with 27 students.

With 3 models measured, among others:

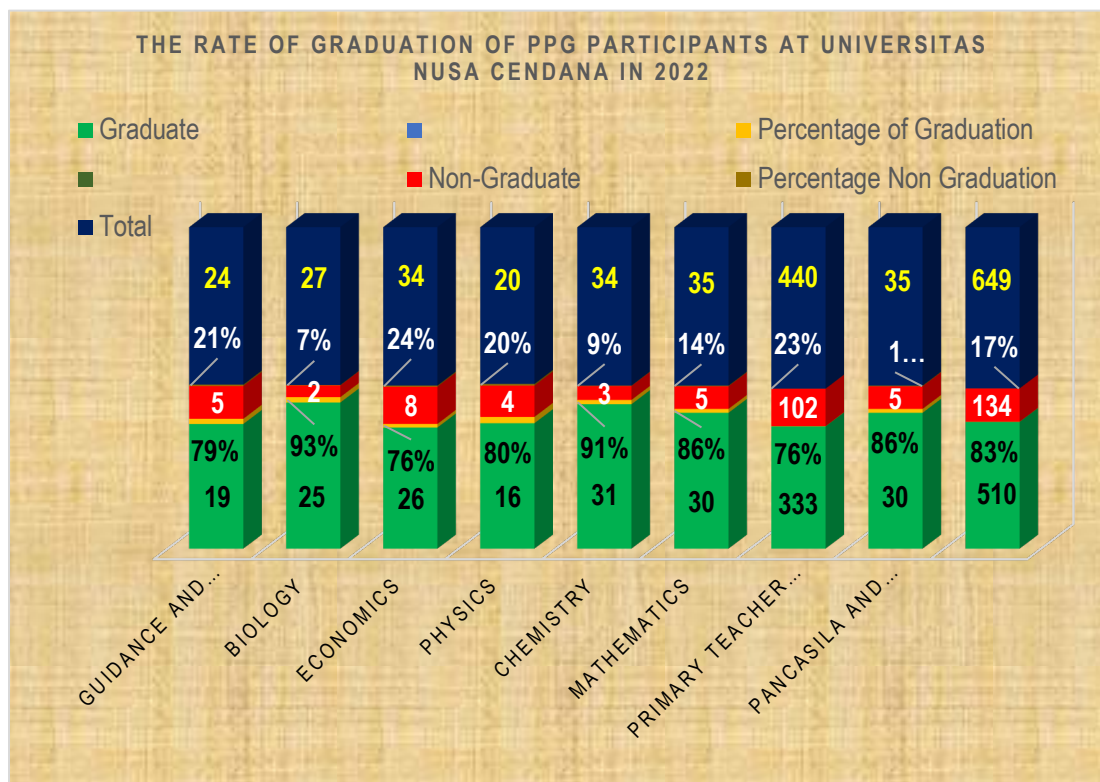
1. What learning model is the driving force for the teaching profession to leave their place of origin.
2. The factors that attract residents to develop learning methods supported by IT are simply choosing the city of Kupang.
3. Why do teachers choose government employees as formal sector workers, with IT through online and offline to become professional teachers.

The following is a graph with the percentage of passing PPG Daljab Category 1 in 2022 as follows

Table 2: The percentage of passing PPG Daljab Category 1 in 2022

No	Subjects	Passing UMKPPG	Percentage of Graduation	Failed from Performance Test	Failed the UKIN (%)	Failed the knowledge test (UP)	Failed the UP	Failed Knowledge and Performance Test	Grand Total
1	Guidance and Counseling	19	79%		0%	5	21%		24
2	Biology	25	93%		4%	1	7%	1	27
3	Economics	26	76%		0	8	24%		34
4	Physics	16	80%		0%	4	20%		20
5	Chemistry	31	91%		0%	3	9%		34
6	Mathematics	30	86%		0%	5	14%		35
7	Primary Teacher education	333	76%	2	1%	102	24%	3	440
8	Pancasila and Citizenship Education	30	86%		0%	5	14%		35
Grand Total		510	79%	2	1%	133	21%	4	649

This data shows that the number of Study Programs with graduation at Undana has increased by an average of 79% from last year (check the percentage of Graduation) so that the curve will increase.

**Fig. 4:** The rate of graduation of PPG participants at Universitas Nusa Cendana in 2022

Based on the graph above, it can be explained that the number of participants for the 2022 PPG UKM exam was 649 people with details of 24 people from the Counseling Guidance Education Study Field, 27 people from the Biology Education study field, 34 people from the Economics Education study field, 20 people from the Physics Education study field, 34 people from the study area of Chemistry Education, 35 people from the study area of Mathematics Education, 440 people from the study field of Elementary School Teacher Education, 35 people from the study field of Pancasila and Citizenship Education. The test results showed that a total of 510 students passed or 83% and 134 students failed or 17%. From the graduation presentation it can also be explained that the largest contributor to graduation is from the field of Biology as much as 93% and the smallest is from the PGSD study field which is equal to 76%. While the field of study that contributed the most to graduation was the study of Economics Education, which was 24%. However, as a whole it can be concluded that the graduation rate for PPG participants at Nusa Cendana University in 2022 is Very Good because

From the results of the exam, the discussion of each field of study can be described as follows:

A. Subject: Counseling Guidance (BK)

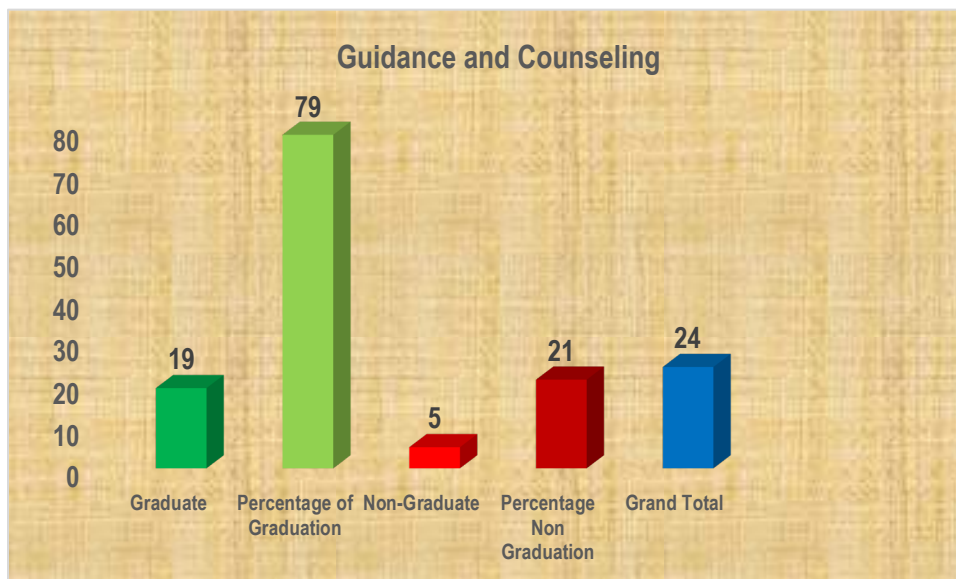


Fig. 5: Total of students who joined the PPG UKM Test from Counseling and Guidance

Based on the graph above, it can be explained that the number of PPG UKM test takers from the Counseling Guidance Study Field was 24 participants with a passing presentation of 79% or the equivalent of 19 people, while participants who did not pass were 5 people or the equivalent of 21%.

B. Subject: Biology Education

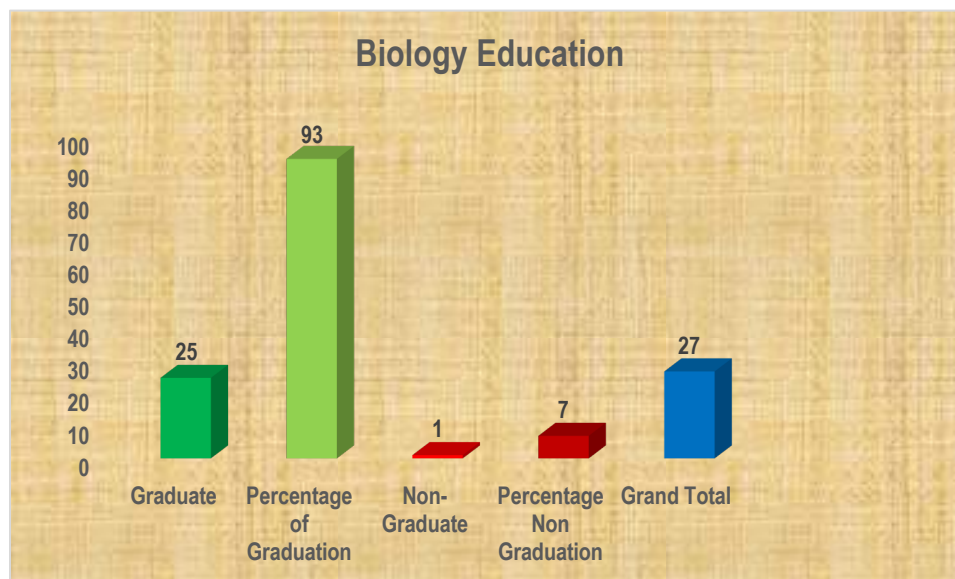


Fig. 6: Total of students who joined the PPG UKM Test from Biology

Based on the graph above, it can be explained that the number of PPG UKM test takers from the Biology Education Study Field was 27 participants with a passing presentation of 93% or the equivalent of 25 people, while participants who did not pass were 2 people or the equivalent of 7%.

C. Subject: Economic Education

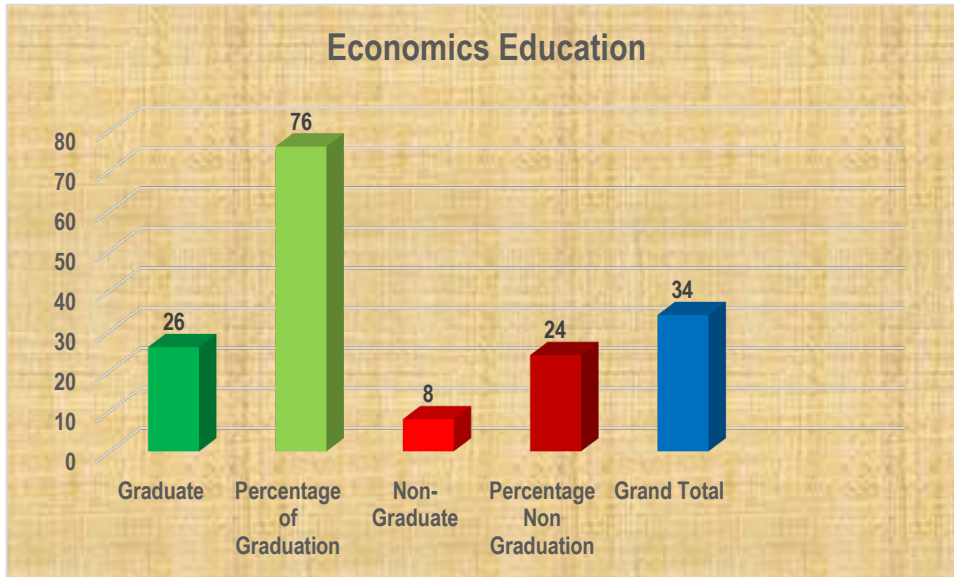


Fig. 7: Total of students who joined the PPG UKM Test from Economics

Based on the graph above, it can be explained that the number of PPG UKM test takers from the Economic Education Study Field was 34 participants with a passing presentation of 76% or the equivalent of 26 people, while participants who did not pass were 8 people or the equivalent of 24%.

D. Subject: Physics Education

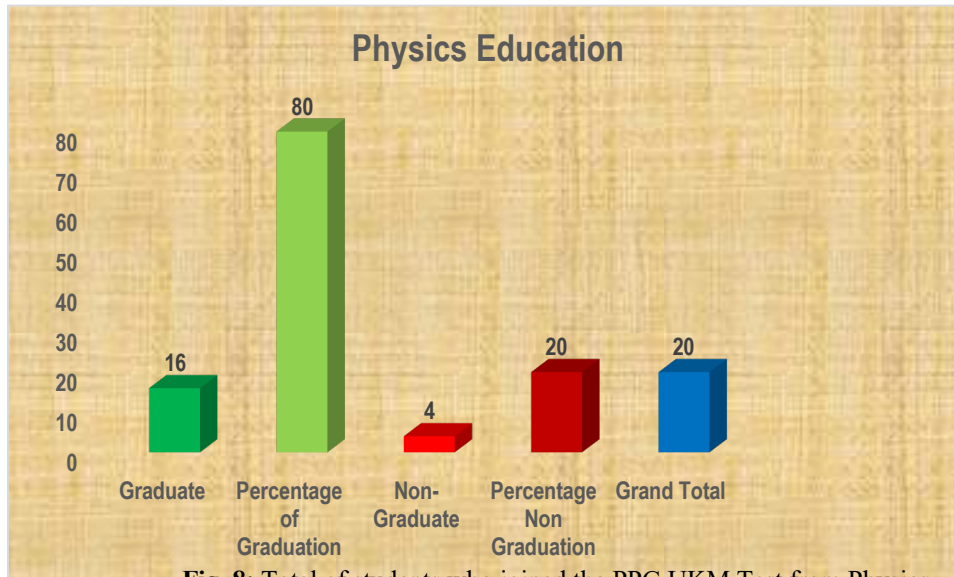


Fig. 8: Total of students who joined the PPG UKM Test from Physics

Based on the graph above, it can be explained that the number of PPG UKM test takers from the Physics Education Study Field was 20 participants with a passing presentation of 80% or the equivalent of 16 people, while participants who did not pass were 4 people or the equivalent of 20%.

E. Subject: Chemistry Education

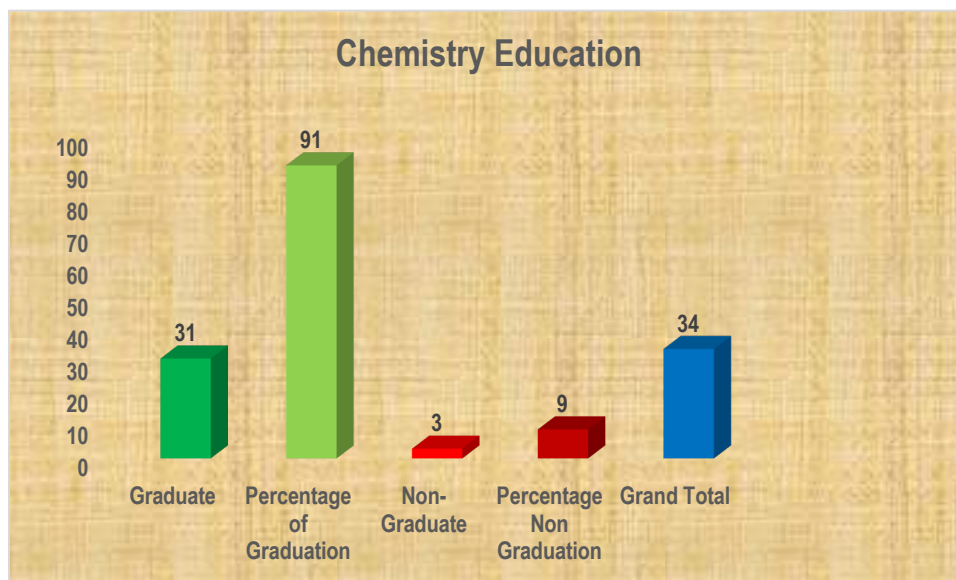


Fig. 9: Total of students who joined the PPG UKM Test from Chemistry

Based on the graph above, it can be explained that the number of PPG UKM test takers from the Chemical Education Study Field was 34 participants with a passing presentation of 91% or the equivalent of 31 people, while participants who did not pass were 3 people or the equivalent of 9%.

F. Subjects: Mathematics Education

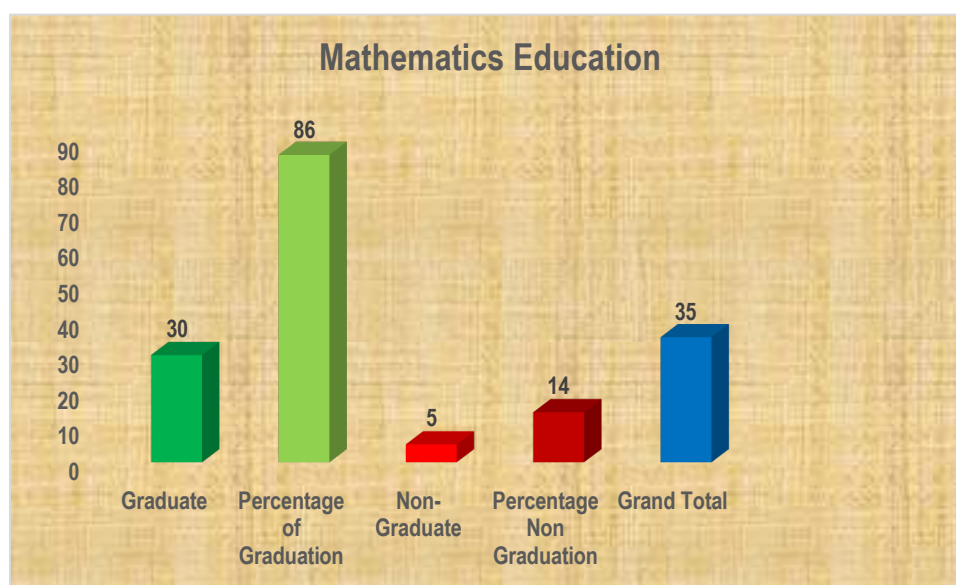


Fig. 10: Total of students who joined the PPG UKM Test from Mathematics

Based on the graph above, it can be explained that the number of PPG UKM test takers from the Mathematics Education Study Field was 35 participants with a passing presentation of 86% or the equivalent of 30 people, while participants who did not pass were 5 people or the equivalent of 14%.

G. Subject: Primary Teacher Education

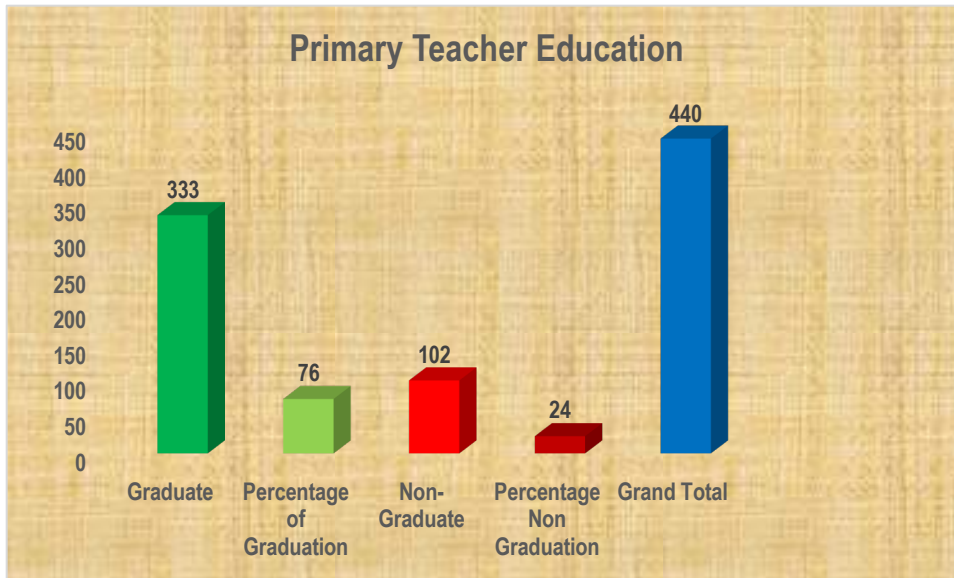


Fig. 11: Total of students who joined the PPG UKM Test from Primary Teacher Education (PGSG)

Based on the graph above, it can be explained that the number of PPG UKM test takers from the Primary Teacher Education Study Field (PGSD) was 440 participants with a passing presentation of 76% or the equivalent of 333 people, while participants who did not pass were 102 people or the equivalent of 24%.

H. Subject: Pancasila and Citizenship Education

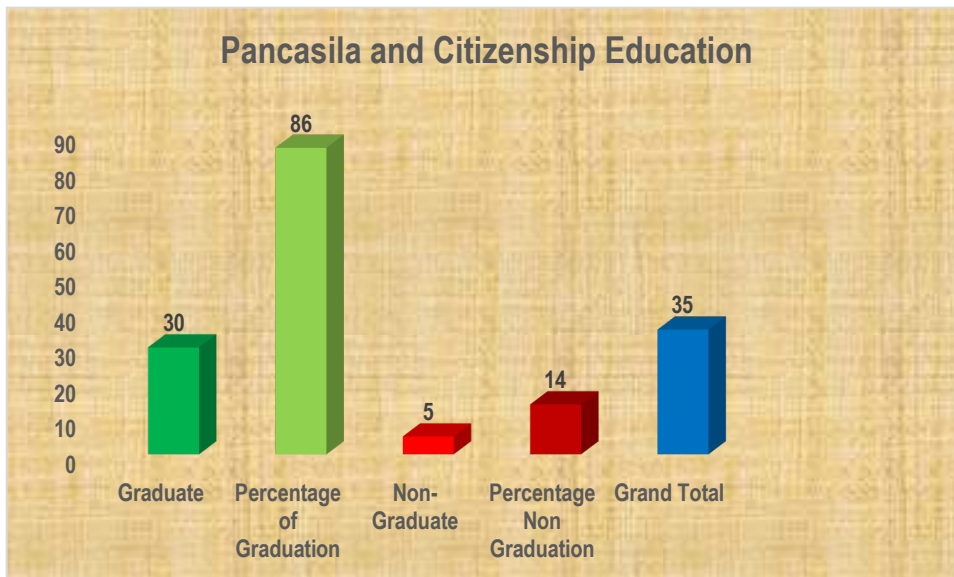


Fig. 12: Total of students who joined the PPG UKM Test from Pancasila and Citizenship Education

Based on the graph above, it can be explained that the number of PPG UKM test takers from the Citizenship Education Study Field (PKn) was 35 participants with a passing presentation of 86% or the equivalent of 30 people, while participants who did not pass were 5 people or the equivalent of 14%.

4 Conclusions and Implications

Based on the findings and discussion that has been carried out, it can be concluded that several things reflect the analysis of learning motivation, facilities and infrastructure and teacher competence at SMK Negeri 2 Kupang as follows:

1. What learning model is the driving force for the teaching population to leave their area of origin, because in other

areas IT facilities and infrastructure are very supportive for learning in the 21st century, for example Wi-Fi facilities are available, electricity is available as needed. If there are problems in technology, it will be easy to do service/repair.

2. The factors that attract the population, the development of learning methods supported by IT remains in Kupang City as one of the cities with developed facilities, causing the supporting factors for learning facilities to become smoother and the provision of goods/books and other learning resources to become smoother.
3. Why do teachers choose government employees as formal sector workers? with IT through online and offline to become professional teachers, after the development of technology and other supporting infrastructure has caused some learning activities to become better and more actual according to ongoing conditions.

The impact of this research activity can be proposed to give effect to the results given as follows:

1. Improving good and harmonious communication with parents and guardians of students (school committee), so that the school committee can provide moral and material support in improving the quality of student learning outcomes.
2. Continuously carry out maintenance and procurement of school infrastructure as well as updating practice facilities, in terms of equipment, practical raw materials and equipment technology that follows the development of science and technology which is developing faster in DUDI, so that students are not left behind in mastering technology.
3. Improving the competence of teachers to have professional skills that are able to guide and improve the quality of their students' learning both in general field groups, adaptive subjects and productive subjects, so as to improve their students' learning abilities.

Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

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