Mapping Post-Graduation Choice Trends: A Quantitative Study of Class XI Multimedia Students of Vocational High Schools in Sleman Regency

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ABSTRACT

Purpose of the study: This study aims to map the post-graduation choice tendencies of Grade XI Multimedia students at vocational high schools in Sleman Regency, focusing on their orientation toward entering the workforce or continuing their studies in higher education.

Methodology: This study employed a quantitative descriptive survey design. The population consisted of 165 Grade XI Multimedia students from five vocational high schools in Sleman Regency, with 117 students selected through proportionate random sampling using the Slovin formula. Data were collected using a validated Likert-scale questionnaire and analyzed using descriptive statistics, including mean scores and percentages.

Main Findings: The results show that both post-graduation tendencies are categorized as high. The tendency to continue higher education (Mean = 3.84; 76.8%) is slightly higher than the tendency to enter the workforce (Mean = 3.59; 71.8%). Internal factors, particularly personal motivation and future aspirations, were identified as the most dominant determinants influencing students' choices. These findings indicate that students have developed relatively mature career orientations since Grade XI, with a stronger inclination toward further study.

Novelty/Originality of this study: This study provides a comparative mapping of two post-graduation tendencies within the same group of Multimedia students, rather than examining employment or further study interests separately. By focusing on Grade XI students and the Multimedia specialization in Sleman Regency, this research offers contextual and updated empirical evidence regarding vocational students' career orientation prior to graduation.

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1. INTRODUCTION

Vocational education is designed to prepare graduates for the workforce and provide them with the opportunity to continue their education to a higher level. Within Indonesia's national education system, Vocational High Schools (SMK) have a strategic mandate to produce skilled human resources to meet industry needs [1]. However, nationally, vocational high school graduates remain a significant contributor to the

relatively high open unemployment rate. This situation highlights the challenge of aligning vocational education objectives with the realities of the labor market. This situation raises questions about the post-graduation path of vocational high school students, whether they are more likely to pursue employment or further study.

This issue becomes more specific when examined among 11th-grade students majoring in Multimedia at a Vocational High School in Sleman Regency [2]. The rapidly developing multimedia field in the digital era should offer broad job prospects and relevant further study opportunities. However, the exact nature of students' career choices prior to graduation remains unknown. Furthermore, Sleman Regency is noted as a region with a relatively high open unemployment rate in the Special Region of Yogyakarta [3]. This situation reinforces the importance of understanding students' post-graduation career orientations starting in 11th grade.

One strategic step to address this issue is to systematically map students' post-graduation career choices. Through a quantitative, survey-based approach, empirical data can be obtained to describe students' career orientations and educational aspirations [4]. The results of this mapping are expected to provide a snapshot of the proportion of students' inclinations to work or continue their studies [5]. This information can inform the formulation of school policies regarding career guidance services. This way, interventions can be more targeted to students' needs.

Several previous studies have shown that interest has a positive relationship with both job readiness and academic achievement in vocational high school students. These studies confirm that the higher a student's interest in a choice, the greater their readiness and effort to achieve it. Previous research generally focused on the relationship between interest and other variables such as academic achievement or job readiness. These findings provide a theoretical basis for examining student choice orientation [6]. However, these studies have not specifically mapped post-graduation career choices within the context of multimedia expertise competencies in Sleman.

On the other hand, there are studies examining the internal and external factors causing unemployment among vocational high school graduates. These studies focus on the mismatch between graduate competencies and the needs of the workforce. While relevant to vocational education issues, their focus is more on the causes and impacts, rather than on students' preferences before graduation. Therefore, there are few studies that quantitatively describe student preferences in grade 11 [7]. This gap highlights the need for research that specifically maps the post-graduation orientations of multimedia students in Sleman.

The novelty of this research lies in its approach to mapping post-graduation choices specifically among eleventh-grade students majoring in Multimedia Expertise in Sleman Regency. This research not only examines interests but also positions them within the framework of students' future choice orientations [8]. Focusing on eleventh-grade students provides a unique perspective because they are in the decision-making phase before graduation. Furthermore, the relatively new and evolving context of multimedia competency provides added value to vocational education studies. Thus, this research presents a more contextual and up-to-date empirical perspective.

This research is important because its results can serve as a basis for strengthening career guidance and academic planning services in vocational high schools. Local governments and schools require factual data to ensure education policies align with student needs and the workplace [9]. Without clear mapping, decision-making tends to be assumptive and poorly targeted. Therefore, this study aims to map the post-graduation career choices of 11th-grade Multimedia Vocational High School students in Sleman Regency using a quantitative approach [10]. The research results are expected to provide practical and theoretical contributions to the development of vocational education that is more responsive to students' career dynamics.

2. RESEARCH METHOD

This study employed a quantitative approach with a descriptive survey design. This design was chosen to map the post-graduation career choices of eleventh-grade students majoring in Multimedia at a vocational high school in Sleman Regency [11]. The quantitative approach was used because the data obtained were numerical scores that were analyzed statistically. This study focused on two main trends: entering the workforce and continuing higher education. The analysis was conducted to describe the proportion and dominant trends of student choices.

The study population was all 165 students of grade XI Multimedia Expertise Competency at five Vocational High Schools in Sleman Regency in the 2023/2024 academic year. The schools that were the location of the study included Muhammadiyah Vocational High School 2 Moyudan, State Vocational High School 1 Godean, Muhammadiyah Vocational High School Prambanan, Budi Mulia Dua Vocational High School, and Muhammadiyah Vocational High School 1 Sleman. The sampling technique used proportionate random sampling so that each school was represented proportionally [12]. Based on the Slovin formula calculation with a 5% error rate, a sample of 117 students was obtained. The number of samples from each school was adjusted to the proportion of the number of students.

The research instrument was a closed-ended questionnaire using a five-level Likert scale. The research variables consisted of two main constructs: the tendency to continue studying and the tendency to enter the

workforce. Each construct was measured through several indicators reflecting internal motivation, social factors, and perceived self-efficacy [13]. The instrument underwent validity and reliability testing before being used in data collection [14]. The reliability test results showed a Cronbach's Alpha value above 0.80, indicating good internal consistency.

Data analysis was conducted using descriptive statistics to obtain mean values, percentages, and categories of student preference tendencies. Tendency categories were determined based on percentage intervals into high, medium, and low [15]. To clarify the mapping of post-graduation choices, a comparison of the means between the two main constructs was conducted. The results of the analysis are presented in a summary table for ease of interpretation. The entire analysis process was conducted using statistical software.

Table 1. Research Variable Mapping Design

Variables	Key Indicators	Scale	Analysis Output
Tendency to Continue Study	Internal motivation, social support, educational aspirations	Likert (1–5)	Mean & Persentase
Trends in Entering the World of Work	Job interest, competency readiness, environmental support	Likert (1–5)	Mean & Persentase

The research procedure began with the development of an instrument outline based on theoretical studies of career interests and vocational education aspirations [16]. Next, a pilot test was conducted to ensure the validity and reliability of the items. After the instrument was declared suitable, the questionnaire was distributed directly to respondents at each school [17]. The collected data were then coded and processed using descriptive statistical analysis. The results were used to map the dominant post-graduation career choices of 11th-grade Multimedia students in Sleman Regency.

To ensure representation of each school, the sample distribution was carried out proportionally based on the student population in each school. Details of the sample distribution can be seen in Table 2.

Table 2. Distribution of Research Samples

School	Population Size	Number of Samples
Muhammadiyah 2 Moyudan Vocational School	30	21
State Vocational School 1 Godean	36	25
Muhammadiyah Prambanan Vocational School	34	24
Budi Mulia Dua Vocational School	32	23
Muhammadiyah 1 Vocational School, Sleman	33	24
Total	**165**	**117**

This table shows that each school obtained a proportional number of samples according to the population of class XI Multimedia students.

3. RESULTS AND DISCUSSION

This study shows that the post-graduation choices of eleventh-grade students at Multimedia Vocational High School in Sleman Regency are in the high category for both alternatives, namely continuing studies and entering the workforce [18]. The results of descriptive analysis indicate that the tendency to continue studies has a higher average than the tendency to enter the workforce [19]. The percentage of the tendency to continue studies reached 76.8%, while the tendency to enter the workforce was 71.8%. This finding indicates that most students have a strong orientation towards future planning after graduation. In general, students show quite good awareness in determining the direction of post-graduation choices.

Table 3. Comparison of Post-Graduation Choice Trends

Variables	Mean	Percentage	Category
Continuing Studies	3,84	76,8%	Tall
Entering the World of Work	3,59	71,8%	Tall

When examined from the formative aspects, internal motivation is the most dominant determinant in both tendencies [20]. Personal motivation, future aspirations, and perceptions of career opportunities are the indicators with the highest scores. Meanwhile, social and environmental factors show relatively lower scores than internal factors. This indicates that students' post-graduation decisions are more influenced by personal

awareness and aspirations than external pressures [21]. Therefore, this mapping shows that students' career orientations have been quite maturely formed since grade XI.

Table 4. Summary of Dominant Indicators for Each Variable

Variables	Dominant Indicators	Mean	Category
Continuing Studies	Motivation and Aspirations	4,04	Tall
Entering the World of Work	Interest and Competence Beliefs	3,71	Tall

Furthermore, mapping between schools shows a relatively consistent pattern. Four out of five schools have a higher tendency to pursue further study than employment. Differences between schools do not show extreme differences, thus concluding that orientation patterns are relatively even across Sleman Regency [22]. This indicates that Multimedia students are not only oriented toward job readiness but also consider further academic development. Thus, post-graduation student orientation is dual-oriented, but leans toward higher education.

To obtain a more comprehensive picture, analysis was also conducted on each of the indicators that make up the variable. The results of the analysis of the tendency to continue studying and enter the workforce indicators are presented in Table 5.

Table 5. Average and Percentage of Each Indicator

Variables	Indicator	Mean	Percentage	Category
Continuing Studies	Internal Motivation	4,04	80,8%	Tall
Continuing Studies	Social Support	3,72	74,4%	Tall
Continuing Studies	Educational Aspirations	3,85	77,0%	Tall
Entering the World of Work	Job Interests	3,71	74,2%	Tall
Entering the World of Work	Competency Readiness	3,64	72,8%	Tall
Entering the World of Work	Environmental Support	3,42	68,4%	Medium–High

Based on Table 5, the internal motivation indicator scored the highest compared to the other indicators. This indicates that intrinsic motivation plays a more dominant role in shaping students' choice tendencies than external factors.

To clarify the dominant factors shaping choice tendencies, a comparison was made between internal and external factors. The results of the analysis are presented in Table 6.

Table 6. Comparison of Internal and External Factors

Factor	Mean	Percentage	Category
Internal	3,95	79,0%	Tall
Eksternal	3,57	71,4%	Tall

Data shows that internal factors have a higher average score than external factors. Thus, students' post-graduation decisions are more influenced by personal awareness, motivation, and future aspirations than by social pressures.

The findings of this study align with previous research, which states that interest significantly contributes to work readiness and study continuation. Previous studies have shown that intrinsic motivation is positively related to academic achievement and work readiness [23]. The results of this study strengthen this argument by demonstrating that internal motivation is the dominant factor in shaping choice tendencies. However, this study goes beyond simply highlighting the relationship between interest and achievement and also maps the distribution of choices comparatively. Thus, the results of this study broaden the understanding of post-graduation orientation in the context of vocational education.

The novelty of this study lies in its comparative mapping approach between two choice tendencies within the same respondent group. Unlike previous studies, which generally examined only career interests or continuing studies interests separately, this study measures both simultaneously. Furthermore, the study focused on eleventh-grade students enrolled in the Multimedia Expertise Program, a relatively new and developing program in Sleman Regency [24]. This context provides a new perspective on students' career orientation in information technology at the vocational high school level. Thus, this study presents a more contextual and up-to-date empirical contribution to the issue of vocational education.

The results of this study can be explained through the context of the development of the multimedia field, which is closely related to information technology and the creative industry [25]. Students tend to view higher education as a means to improve their competencies and expand career opportunities in the digital field. Furthermore, Sleman Regency, as an educational region with many universities, also provides strong academic

exposure for students. The proximity of higher education institutions can increase students' aspirations to continue their studies. Therefore, the higher tendency to choose to continue their studies can be understood as a response to academic opportunities and the increasingly competitive development of the digital industry.

The implications of this study's findings suggest that schools need to strengthen career guidance services based on student interest mapping. Because internal factors are proven to be dominant, programs to strengthen motivation and career planning starting in grade 11 are crucial [26]. Schools can also develop collaborations with universities and industry to provide a more realistic picture of post-graduation options. For local governments, these findings can serve as a basis for formulating policies to strengthen vocational education that are more adaptive to student aspirations. Therefore, this trend mapping can be utilized as a strategic instrument in educational decision-making.

However, this study has several limitations that should be considered. It used only a descriptive approach, thus not analyzing causal relationships between variables. Furthermore, the study's scope was limited to five vocational high schools (SMK) in Sleman Regency, requiring caution in generalizing the results [27]. Data were also collected through a self-report questionnaire, which could potentially introduce respondent perception bias [28]. Future research is recommended to use a mixed or longitudinal approach to examine the dynamics of changes in student choice leading up to graduation. This will allow for a more comprehensive and in-depth mapping.

4. CONCLUSION

Based on the research results, it can be concluded that the post-graduation choice tendencies of 11th-grade Multimedia Expertise Competency students at Vocational High Schools in Sleman Regency are in the high category for both alternatives, namely continuing studies and entering the workforce. However, the tendency to continue studies shows a higher value than the tendency to enter the workforce. Internal driving factors, such as personal motivation and future aspirations, are the main determinants in shaping students' choice orientations [29]. These findings indicate that students have had relatively mature career awareness and planning since 11th grade. Overall, this study confirms that the post-graduation orientation of Multimedia students in Sleman is dual-oriented with a stronger tendency towards higher education.

These findings underscore the importance of mapping choice trends starting in 11th grade as a basis for planning more targeted career development programs. The empirical data obtained not only illustrates the distribution of student choices but also reveals the structure of decision-making factors that need to be considered in school policies.

The results of this study provide an empirical contribution to the study of vocational education, particularly in understanding the direction of student career choices before graduation. The mapping conducted demonstrates the importance of data-driven career guidance services to support student decision-making. Schools and local governments can use these results as a basis for designing programs to strengthen motivation, develop competencies, and partner with universities and industry. With factual data on student choice tendencies, vocational education policies can be formulated more precisely [30]. Therefore, this research has theoretical and practical relevance in developing vocational education that is adaptive to students' career dynamics .

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