Conference Paper

Training on How Students Choose Their Academic Career Paths

Angga Yuni Mantara[1*], Rakhmaditya Dewi Noorrizki[2], Moch. Sa'id[3], Gebi Angelina Zahra[4], Diyah Sulistiyorini[5], Afi Rizqi Zakaria[6], Chaty Trizka Anggini[7] and Noviyani Sri Wahyu Siwi[8]

[1,2,3,4,5,6,7,8]Universitas Negeri Malang, Malang, Indonesia

Abstract.
The lack of knowledge that students face in choosing their careers is one of the issues for those who want to continue their education. Vocational High School (SMK) graduates hope to get a job after graduation rather than continue their study. However, it does not preclude the possibility that they will continue their studies at the higher education level. Therefore, this training aims to enhance participants' capacity to plan their career paths, particularly for higher education. The first step in the training process is distributing the material, followed by a workshop. A lecture introduces the subject matter, and a workshop setting involves participatory action research. The evaluation's findings demonstrate that students' knowledge and skills improve due to the training received, and they can better comprehend the career path they will eventually pursue.

Keywords: career choice, advanced studies, vocational high school

Corresponding Author: Angga Yuni Mantara; email: anggamanta.fppsi@um.ac.id

🔓 **OPEN ACCESS**

1. Introduction

All Indonesian state universities participate in the National Joint Entrance Selection also known as SBMPTN, as one of the entrance selection processes for higher education. Students have the chance to select the major that interests them through this selection process. Students have the option to select three majors from two different universities during the registration process. The test path is one of the most popular pathways because most students pass through these pathways [1]. Public universities were among the most popular educational options, per a study by Tabita and Halim (2014). The popularity of public universities is because of facilities that are qualified (13.09%), parental consideration (14.38%), and accreditation and reputation (24.39%)—making decisions about the major to study as one of the student's career paths after graduation thus becomes very stressful due to the level of difficulties that exist and the limitations of choice.

Various factors generally influence a student's decision to pursue higher education. Learning aptitude, intelligence, personality, self-efficacy, interest, self-confidence, and self-orientation are examples of internal drivers [1-9]. In contrast, external factors like parental and peer influence, institutional reputation, the chance to graduate, or counseling support and information services both regarding career paths, or careers after graduation, are thought to be important for students to know and need to be trained about it [10-17]. Three different secondary education options— Senior High School (SMA), Islamic High School (MA), and Vocational High School (SMK)—and problems relating to the characteristics of very diverse capabilities of student graduates. There are also ongoing

changes in university policies from year to year.

Students have a wide range of career options available to them, particularly those who are in high school or an equivalent. Of course, high schools prepare their graduates to continue their education at a higher level by preparing them to enroll in colleges, universities, or other high schools. In addition to preparing its graduates to continue their education, Madrasah Aliyah (MA), a formal education run under the Ministry of Religious Affairs, also provides high school graduates with an additional curriculum for studying Islam. Alternatively, students are encouraged by vocational high schools (SMK) to pursue careers as skilled workers in line with their chosen majors. Teachers who act as student facilitators often struggle to guide students when they want to pursue higher education, precisely due to the demands of Vocational High School, which focuses on developing skilled workers.

In addition to these features, the capacity of each highly trained major is very dynamic to change the laws and regulations. For instance, not all campuses publish information on each department's capacity, registrants, and enthusiasts on the campus page; disclosing the information is a problem in and of itself. The information will show how eagerly people apply to these colleges, how competitive it is, and how everyone has a chance to be accepted as part of a particular major. As a result of these issues, it is essential to update information and provide debriefing on how to read data about opportunities so that students can continue their high education in line with their interests.

The University of Indonesia (UI), the Bogor Institute of Technology (ITB), and the Universitas Negeri Malang (UM) are famous universities or institutions that have grown each year, making it difficult for students to get into higher education. This difficulty faced by students is something that everyone involved must acknowledge. For instance, according to data released by the University of Indonesia, medical education majors

have the lowest chance of graduating from the science program on the Joint Entrance Selection for State Universities (SBMPTN), with a 1.96% chance. In contrast, social studies majors have the highest chance, with 54 open spots. Communication Science is the most challenging, with 1978 registrants vying for 30 student positions [19]. When this article has written, it was impossible to access registrants' access on the ITB page to learn more about registration tightness.

Meanwhile, the Universitas Negeri Malang provides information on registrants and the number of people who re-register. According to the current 2020 data, the science department occupies informatics engineering with a percentage of 2.29%, 1309 people showing interest, and 30 people vying for student status. The Department of English Language and Literature also holds the title of the social studies department with the highest standards, with a percentage of 4.32%, an interest of 819 people, and 70 students competing for positions.

Students are generally unaware of most of the information listed above, or even if they are, many people are unaware of the advantages of this knowledge for students or teachers who offer career counseling. The teacher can only guide students and students to choose by measuring existing competencies and abilities due to the limited information and procedures for calculating how to determine the appropriate major. We believe that it is essential to provide a service in the form of a lecture on how to choose a major using the priority scale method and the current strictness analysis. On the other hand, as well as developing their skill through a straightforward workshop to try to choose the major, they will choose if they want to continue their studies.

Because of the abovementioned issues, we concluded that there are issues with students' ability to select the appropriate major. Moreover, at the SMK education level, it is necessary to distribute information on how to do so—determining the Priority Scale in the Selection of Lecture Departments in Jombang.

2. Method

Sixty-nine students from SMKN Gudo class XII participated in this activity, but five did not complete the instrument, so we excluded them from the analysis. Thirty-nine women and 25 men made up the 64 total individuals. By registering with the school counseling guidance party to participate in this study planning training activity, participants for this activity used a practical sampling method. The information we gather comes from the ratios of the correct decisions students make when ranking their majors under current

priorities. We used a test of the difference between participant values obtained before and after the training for our analysis.

We started by mapping the issues at the school. In this activity, the partners are SMKN Gudo in Jombang, East Java. The number of applicants who used the SNMPTN and SBMPTN pathways differed according to the results of the initial interview process. The difference in how students choose their tests is that many students prefer to compete against other students from other schools through the test route because they lack confidence in their ability to apply through the SNMPTN route. Finding the cause of the issue was the next step in the process. Discussions with some class XII students revealed that they prefer to work despite their desire to study. Some of them expressed confusion about what their priorities should be for college. Based on this, we felt that students' understanding of how to structure the priority scale of the major required intervention.

We started to create instruments to test students' knowledge as a method of evaluation once we were aware of the issues the students were facing. The activity is implemented in stages, starting with a pre-test with five major choices and data submitted on paper. The five options are majors available in the Universitas Negeri Malang's department. Because complete data is available from year to year and design and administration majors are dominating in participant characters, so we think that they will likely choose social majors in the future. After the pre-test, we give information on advanced career paths, college majors, and the dangers of choosing the wrong ones. This information is shared using the seminar method. We not only give information on this subject but also instructions on how to interpret the information we presented in the previous sheet. We reassessed the students' accuracy in creating the preexisting priority scale following the training, also known as the post-test.

The pre-test and post-test values are measured with a rater's aid to determine the student's correct order choice. After finishing, students are free to leave. There is a chance that participants will still receive a score based on what they do and what is the order of positions of each major in the section previously provided. The instruments used in the pre-test and post-test are true and false items. For each answer that answered true, they will get 20 points and a total possible score of 100 if all majors are put in place correctly.

3. Results and Discussion

According to descriptive statistics, thirteen people scored 0 on the pre-test. Twenty-five people received a score of 20, 19 received a score of 40, 6 received a 60, and 1 received an 80. While the post-test results showed that 16 participants received a score of 100, 29 participants received a score of 60, 13 participants received an 80, and 6 participants received a 40. The following is an illustration of the question file for the major.

TABLE 1: List of major instruments.

In our opinion, from the following 5 majors, sort from the hardest to the easiest	
Optional (at UM)	**Order**
English Language Education	
Primary School Teacher Education	
Visual Communication Design	
Accountancy	
Physical Education, Health, and Recreation	

According to the test results produced by these instruments, the participants' values were as follows.

TABLE 2: Participant value distribution.

Value	Pretest (person)	Posttest (person)
0	13	0
20	25	0
40	19	6
60	6	29
80	1	13
100	0	16

The analysis revealed a significant difference between the participants' post-test and pre-test scores. Participants' values were t (63) = .39, $p < .01$, significantly higher during the post-test than during the pre-test.

TABLE 3: Pretest-Posttest testing table.

Valuation	N	Mean	St.Dev.	Corr.	Sig.
Pretest	64	26.56	19.208		
Posttest	64	72.19	19.399		
Pretest*Posttest	64	-45.625	21.223	.395	.001

Additionally, this test showed no discernible differences between men and women (F (62) = 3.49, p = .7). So that there is no discernible difference between men and women when making career decisions, particularly when selecting a college major.

TABLE 4: Sex influence table.

Assessment Components	F	Sig.
Score Differences*Gender	3.495	.066

4. Conclusion

Therefore, based on the findings, it can be said that the Jombang Regency's priority scale determination training in major selection successfully develops students' capacity to choose their course of study. The result is consistent with other research, particularly research by Setiawan [7], which implements major-related training directly; however, this finding fits with the other research about information services, services, and career understanding [20,11,12,21]. For further implementation, it is crucial to consider how the institution's reputation is measured and compared between one campus and another. The finding also aligns with Meyer et al., [13], who found that the university's reputation influences students' decisions to continue their studies. Students' decision-making process is not only limited to the choice of the major but also the same majors in another university.

5. Thank you

References

[1] Balsamo M, Lauriola M, Saggino A. Work values and college major choice. *Learning and Individual Differences*. 2013;24:110–116. https://doi.org/10.1016/j.lindif.2012.12.022

[2] Komara IB. Hubungan antara Kepercayaan Diri dengan Prestasi Belajar dan Perencanaan Karir Siswa SMP. *Psikopedagogia Jurnal Bimbingan dan Konseling*. 2016;5(1):33–42. https://doi.org/10.12928/psikopedagogia.v5i1.4474

[3] Malgwi C, Howe MA, Burnaby PA. Influences on students' choice of college major. *Journal of Education for Business.* 2005;80(5):275–282. https://doi.org/10.3200/JOEB.80.5.275-282

[4] Ali SR, Saunders JL. The career aspirations of rural appalachian high school students. *Journal of Career Assessment.* 2009;17(2):172–188. https://doi.org/10.1177/1069072708328897

[5] Rizdania R. Sistem Pendukung Keputusan (SPK) pemilihan jurusan perguruan tinggi menggunakan algoritma fuzzy mamdani. *Jurnal Tecnoscienza.* 2021;6(1):30–42. https://doi.org/10.51158/tecnoscienza.v6i1.529

[6] Rufaidah A. Pengaruh intelegensi dan minat siswa terhadap putusan pemilihan jurusan. *Faktor: Jurnal Ilmiah Kependidikan.* 2015;2(2):139–146. https://journal.lppmunindra.ac.id/index.php/Faktor/article/view/379

[7] Setiawan A. Keterbukaan diri dan kemampuan pemecahan masalah. *Jurnal Psikologi.* 2019;6(1):68–80.

[8] Prabowo W, Yusuf M, Setyowati R. Pengambilan keputusan menentukan jurusan kuliah ditinjau dari student self efficacy dan persepsi terhadap harapan orang tua. *Jurnal Psikologi Pendidikan & Konseling: Jurnal Kajian Psikologi Pendidikan Dan Bimbingan Konseling.* 2019;5(1):42–48. https://doi.org/10.26858/jppk.v5i1.7460

[9] Widyastuti N, Widyowati A. Hubungan antara locus of control internal dengan kematangan karir pada siswa SMKN 1 Bantul. *Humanitas.* 2015;12(2):82–89. https://doi.org/10.26555/humanitas.v12i2.3835

[10] Husna RK, Taufik T, Netrawati N. Hubungan dukungan sosial orangtua dengan minat pilihan karir siswa. *Proceedings Internasional Counseling and Education Seminar*; 2017. 170–180. http://repository.unp.ac.id/11214/1/REZI%20KHATUL%20HUSNA-TAUFIK-NETRAWATI.pdf

[11] Juwitaningrum I. Program bimbingan karir untuk meningkatkan kematangan karir siswa SMK. *Psikopedagogia Jurnal Bimbingan Dan Konseling.* 2013;2(2):132–147. https://doi.org/10.12928/psikopedagogia.v2i2.2580

[12] Lestari D, Supriyo S. Kontribusi minat jurusan, kualitas layanan informasi karir, dan pemahaman karir terhadap kemampuan mengambil keputusan karir. *Jurnal Bimbingan Konseling.* 2016;5(1):47-54. https://doi.org/10.15294/jubk.v5i1.18520

[13] Meyer MS, Cranmore J, Rinn AN, Hodges J. College choice: Considerations for academically advanced high school seniors. *Gifted Child Quarterly.* 2021;65(1):52–74. https://doi.org/10.1177/0016986220957258

[14] Nelissa Z, Astuti S, Martunis M. Identifikasi faktor yang mempengaruhi siswa dalam proses pemilihan jurusan pendidikan lanjutan (Studi pada siswa kelas XI SMA

Negeri 5 Banda Aceh). *Jurnal Penelitian Pendidikan Indonesia.* 2018;4(1):78–83. https://doi.org/10.29210/02018198

[15] Rahmad U. Analisis referensi siswa sekolah menengah kejurusan dalam memilih program studi di perguruan tinggi. *Jurnal Manajemen Dan Supervisi Pendidikan.* 2018;2(2):147–152. https://doi.org/10.17977/um025v2i22018p147

[16] Tirta SD, Malfasari E, Febtrina R, Herniyanti R. Faktor-faktor yang mempengaruhi siswa SMA dalam memilih jurusan kesehatan di perkuliahan. *Jurnal Keperawatan Jiwa.* 2021;9(2):381–390. https://doi.org/10.26714/jkj.9.2.2021.381-390

[17] Gumiwang R. Mengapa Siswa Antre SBMPTN Demi Mimpi Kuliah di Kampus Negeri? *Tirto.id. 2018, March 13.* https://tirto.id/mengapa-siswa-antre-sbmptn-demi-mimpi-kuliah-di-kampus-negeri-cFZF

[18] Tabita A, Halim S. Faktor-Faktor yang mempengaruhi siswa SMA dalam memilih perguruan tinggi. *Prosiding Seminar Nasional Teknik Industri UK Petra 2014.* 36–40. 2014. http://repository.petra.ac.id/17130/1/Publikasi1_94032_2127.pdf

[19] SIMAK Universitas Indonesia. *Daftar program studi S1 Reguler TA* 2022. 2022. https://simak.ui.ac.id/reguler.html

[20] Hidayati NW. Pengaruh layanan informasi studi lanjut terhadap perencanaan karir siswa. *Edukasi: Jurnal Pendidikan.* 2014;12(1):94–101.

[21] Nadiarenita AA, Muslihati M, Hotifah Y. Pengembangan paket bimbingan perencanaan studi lanjut dengan model creative problem solving bagi siswa sekolah menengah atas. Jurnal *Kajian* Pratiwi M, Purnamasari A, Prasetyo I. Efektivitas pemberian konseling minat dan bakat untuk meningkatkan kematangan karir siswa SMA di Kota Palembang. *E-Dimas: Jurnal Pengabdian Kepada Masyarakat.* 2021;12(1):132–136. https://doi.org/10.26877/e-dimas.v12i1.6169