Original Research Article

Development Design of Current Career Guidance Service Model in Makassar Aviation Polytechnic

ABSTRACT

The purpose of this study was to develop a career guidance service model at Makassar Aviation Polytechnic. This research uses the research and development (R & D) method with a quantitative descriptive approach. The research location was at Makassar Aviation Polytechnic, Campus II Salodong. The type of data used in this research is a combination of primary data and secondary data. A well-planned Counselling Programme will increase productivity and performance ratings, develop careers increase diversity. Career guidance to guide and direct cadets who are in the final semester is an absolute obligation of the Makassar Aviation Polytechnic to strengthen and support the role of career development institutions in preparing and planning career preparation for cadets. Career guidance is very influential on the maturity of career plans that determine future success. The results of research on the implementation of career guidance activities at Makassar Aviation Polytechnic are carried out in accordance with the desired targets, goals and objectives. It is hoped that this model can continue to be developed and applied in the university environment, especially on vocational campuses, to assist students in preparing their careers in the future.

Keywords: Career Guidance, Development, counselling program

1. INTRODUCTION

The issue of alumni absorption in the world of work has always been a hot topic of discussion among academics in higher education. This problem is inseparable from the increasing trend of open unemployment data from universities nationally. The number of open unemployment from higher education currently reaches 999,543 people, (Indonesia in figures, 2020), or 0.37 per cent of the total population of Indonesia, which currently reaches 272 million. This data should still be below the number of open unemployment originating from high school education which reached 2.3 million and 2.1 million from junior high school graduates. The latest data shows that there is a tendency for an increase in the number of open unemployment originating from higher education.

This issue is certainly a warning for the sustainability of education in higher education. This situation then sparked several questions and doubts from the public regarding the curriculum system implemented in higher education, whether it is adaptive to the development of a strategic environment based on industry 4.0, or still uses the old curriculum. Meanwhile, the central government, which is at the forefront of developing the learning system in higher education, has a big responsibility to encourage the quality of alumni who are more competitive and needed in society. Thus, synchronisation between the university curriculum and the needs of the workforce in the industrial world is an absolute thing to do to save the fate of the younger generation in the future.

In the end, the reputation of university alumni who take part in the community becomes a bet on strengthening the image of higher education. Not all alumni are able to enjoy success after graduating from college, it is not uncommon to

hear information about alumniwho are still unemployed even for years unable to get the desired job, (Afrida and Iskandar 2017), (Whitaker 2017), (Demissie et al. 2021), (Meyer and Mncayi 2021) the same condition is currently experienced by Makassar Aviation Polytechnic (Poltekbang). As a vocational campus under the auspices of the Ministry of Transportation, the number of alumniabsorptions in the world of work should no longer be a doubt and debate on this campus.

The number of Makassar Aviation Polytechnic alumni absorption in the world of work has continued to experience a very significant decline in the last 3 (three) years. In addition to the influence of the covid-19 pandemic that has hit this country since the end of 2019, the demand for labour from the industrial world has sloped quite drastically. However, the economic recovery carried out by the government so that economic activity returns to stretching should be a note for stackholders at Makassar Aviation Polytechnic to improve and prepare prospective alumni to face competition in the world of work.

Research results (Rahman and Mahmud 2022) found that the existence of the Career Development Centre at Makassar Polytechnic is a solution for their alumni to be absorbed in the world of work. Similar to the findings (Pasmawati, 2018) that the position of final cadets and cadets in higher education is at the stage of pre-occupation transition to the career stage. At this stage it is a difficult time for them because they are faced with a real phenomenon (the world of work). For this reason, cadets and cadets need to be equipped with insights and understanding of the world of work starting from the stages of knowledge of work information, making work decisions, to their readiness to adjust to work ethics and culture, and self-development after work. Soft skills like this can only be obtained through career counselling and guidance services at career development centres. Therefore, the urgency of a career development centre in a university becomes very crucial.

Another reinforcement of the urgency of career guidance in higher education was found by (Lawler, 2019) in Canadian cadets and midshipmen who are considered capable of developing careers to their career changes after following the career guidance process. In connection with some of the research findings that strengthen the position of career institutions in a university, it then becomes an alarm for Makassar Aviation Polytechnic to optimise the function of career institutions in preparing their cadets and cadets. cadet career development system should be focused on an autonomous institution to manage, plan, evaluate and develop career coaching patterns for cadets. This institution needs to get support from the institution in terms of access, funding, and an independent management system so that it can provide maximum results on cadets' career readiness. This effort needs to be realised concretely to ensure the quality of Makassar Aviation Polytechnic graduates in the world of work.

Career guidance or career assistance basically starts from the needs of service participants for various information related to the career that will be undertaken, of course also strengthened by the reasons for the need from the institution to overcome the increasingly worrying problem of alumni absorption. This argument is then strengthened by the opinion expressed by (Sandowil, Yusuf, and Afdal 2021) that a career is a sequence of positions or main jobs occupied by a person whose process lasts from adolescence to retirement. While the career stage itself can be divided into three main stages, namely; pre-occupation, which is the learning process carried out by a person at the education level, starting from elementary school to college. The occupational stage, which is the period where a person enters the world of work or the working period, and finally post-occupational, which is the period of retirement.

At the tertiary level, career guidance provides great potential to help cadets and cadets understand career planning and the placement process after they finish college, with this career guidance can help cadets prepare for the

competencies that must be possessed, both academic and non-academic competencies in the form of additional soft skills in accordance with the demands of the world of work.

The urgency of career guidance to guide and direct cadets who are in the final semester is an absolute obligation of the Makassar Aviation Polytechnic to strengthen and support the role of career development institutions in preparing and planning career preparation for cadets.
Research that is more complex and difficult to adapt by vocational campuses in Indonesia so this research will adopt the career development approach found by the Aviation Polytechnic of Makassar (Greco and Kraimer 2020) which has tested a career management model where the experience of career professional assistance is the first step of short and long-term goals to find professional and work-ready individuals through their identification.

In the process, career guidance has become part of the process of assistance, services, and approaches to individuals, so that the individual concerned can know himself, understand himself, and know the world of work to plan with the expected form of life to make choices and decide that his decision is the most appropriate in accordance with his circumstances associated with the requirements and demands of the job or career he chooses. In substance, career guidance is a tool, more precisely a systematic programme, process, technique, or service intended to help individuals or cadets and cadets understand and act on the basis of self-recognition and recognition of opportunities in work, education, and leisure, and develop decision-making skills so that they can create and manage their career development (Pasmawati 2018).

Career guidance is very influential on the maturity of career plans that determine future success (Rahma, Yusuf, and & Afdal 2021). This guidance will prepare themselves or career planning for cadets and cadets / cadets in facing the real world of work. In choosing a job or a certain position or profession, of course, they are equipped with various soft skills and equip themselves with knowledge related to the world of work so that they are truly ready to face the world of work or hold that position. On the other hand, those who actively carry out the career planning process will easily adjust to the various demands of the work they carry out later (Afrida and Iskandar 2017), (Mahapatra, 2022).

From this description, it shows that career guidance is in principle a structured and planned assistance process carried out by educational institutions for cadets and cadets so that they can know and understand themselves, know the world of work, develop a future in accordance with the expected form of life, be able to determine and make decisions appropriately and responsibly.

3. METHODS

This research uses the research and development (R & D) method with a quantitative descriptive approach [9]. The quantitative approach is used to answer the problem formulation about the effectiveness of psychosocial mentoring activities obtained from the assessment results. The research was conducted at Makassar City Aviation Polytechnic, Campus II Salodong. The subjects of this study were all cadets at Makassar Aviation Polytechnic, consisting of four study programmes, namely Aircraft Maintenance Technology (TPPU), Air Traffic Management (MLLU), Airport Technology (TBU), and Air Navigation Technology (TNU). The type of data used in this research is a combination of primary and secondary data. Primary data is data that is directly taken from the object of research, while secondary data is data obtained indirectly from the object of research. measure the effectiveness of psychosocial mentoring activities by using psychological tests (assessment tests) used to measure affective aspects and intellectual abilities.

The results of this test also serve as a reference to the effectiveness of the implementation of psychosocial counselling activities as a second trial to encourage career readiness for cadets.

4. RESULTS AND DISCUSSION

The results of research conducted by (Pasmawati 2018), (Theses, 2021) found the important role of career guidance for cadets in preparing themselves to enter the world of work. Self-readiness is a provision for them to adjust to the needs of the world of work, so that the

competencies they have can be developed properly, in addition to the lecture process they get on the bench so far will be more optimal. In addition, career guidance for cadets, graduates or alumni who are in the waiting period in getting a job will be better prepared and can minimise various problems related to confusion and unpreparedness in entering the world of work.

Instrument validation as described above, is needed to test the validation of the instrument against the variables to be used. On the instrument of the career model development model guideline at Makassar Polytechnic, it was carried out by 5 (five) validators who provided an assessment of the accuracy of each component or indicator of this model guideline. Furthermore, the results of the assessment from these validators were then processed based on each score given to each component or indicator assessed so that the results of the scoring categories came out as follows: for scores very valid (4); valid (3); less valid (2) and invalid (1). The results of the average validation score for this instrument are described in the table below.

Table 1. Results of Instrument Validation of Career Development Model Guidelines at Makassar Polytechnic

	Component/Indicator	Average Score			
		1	2	3	4
A.	**Aspect Instructions**				
1.	Model guidance instrument sheet instructions are clearly stated			3,8	
2.	Assessment criteria are clearly stated			3,8	
B.	**Aspect Coverage**				
3.	In accordance with the purpose of the instrument sheet guiding the career guidance model at Makassar Polytechnic				4
4.	Statements according to indicators			3,8	
5.	Statement boundaries are clearly formulated			3,8	
C.	**Language Aspect**				
6.	Using correct, simple, and communicative Indonesian language				4
7.	Use sentences that are easy to understand and do not cause multiple interpretations			3,8	
	GENERAL ASSESSMENT (VALIDATION)	**A**	**B**	**C**	**D**
	General assessment of the model guideline instrument sheet at the Career Development Centre at Makassar Polytechnic	**A**			

Source: Research Instrument Validators (data processed), 2023

The results of instrument validation carried out by validators obtained an average score for this instrument of 3.83 from 3 (three) aspects of assessment, namely aspects of instructions, coverage, and language. The validator's assessment for this instrument is considered very good and very valid for all components/indicators. Even in the coverageand language aspects, some validators gave 4 (four) points, indicating that this instrument is very valid to be used to measure career development guideline at Makassar Polytechnic.

The next instrument to be measured in this research is the instrument of career guidance

module. This module is an instruction or guideline for cadets of Makassar Polytechnic in receiving career guidance services. This module

is published by the Makassar Polytechnic Career Development Center which contains methods, requirements and technical explanations related to the implementation of career programs that will be received by cadets during the program. The results of the instrument assessment carried out by the validator are then given a category for a score of very valid (4); valid (3); less valid (2) and invalid (1).

Table 2. Results of Instrument Validation of Career Guidance Modules at Makassar Polytechnic

	Component/Indicator	Average Score			
		1	2	3	4
A.	**Aspect Instructions**				
1.	Model guidance instrument sheet instructions are clearly stated				4
2.	Assessment criteria are clearly stated			3,8	
B.	**Aspect Coverage**				
3.	In accordance with the purpose of the instrument sheet guiding the career guidance model at Makassar Polytechnic				4
4.	Statements according to indicators				4
5.	Statement boundaries are clearly formulated			3,4	
C.	**Language Aspect**				
6.	Using correct, simple, and communicative Indonesian language				4
7.	Use sentences that are easy to understand and do not cause multiple interpretations			3,8	
	GENERAL ASSESSMENT (VALIDATION)	**A**	**B**	**C**	**D**
	General assessment of the model guideline instrument sheet at the Career Development Centre at Makassar Polytechnic	**A**			

Source: Research Instrument Validators (data processed), 2023

The results of the validators' assessment of this instrument are quite varied and tend to be normally distributed. The average of the total scoring for this instrument is quite good with an average score of 3.86. Even for some assessment components such as the coverage aspect, the highest assessment was obtained by a score of 4 (four) for two categories, namely the suitability of the purpose of the career service module instrument at Poltekbang Makassar and the statement according to the indicator. All assessment components or indicators that become references to this module assessmentinstrument is declared very valid and can be used as indicator assessments without revision.

3.1 Talent Mapping Assessment Instrument Validation Results

The next instrument assessment is the talent mapping assessment which is part of the career services at Poltekbang Makassar. This assessment is also a pilot programme carried out in this study which will then become a prototype for career development in universities in Indonesia. The assessment of this instrument is given a score of very valid (4); valid (3); less valid (2) and invalid (1). The results of the average validation score for this instrument are shown in the following table.

Table 3. Results of Instrument Validation on Talent Mapping Assessment at Makassar Polytechnic

NO	Component/Indicator	Average Score			
		1	2	3	4

A.	**Aspect Instructions**				
1.	Model guidance instrument sheet instructions are clearly stated			3,8	
2.	Assessment criteria are clearly stated				4
B.	**Aspect Coverage**				
3.	In accordance with the purpose of the instrument sheet guiding the career guidance model at Makassar Polytechnic			3,8	
4.	Statements according to indicators			3,8	
5.	Statement boundaries are clearly formulated			3,6	
C.	**Language Aspect**				
6.	Using correct, simple, and communicative Indonesian language			3,8	
7.	Use sentences that are easy to understand and do not cause multiple interpretations			3,7	
	GENERAL ASSESSMENT (VALIDATION)	**A**	**B**	**C**	**D**
	General assessment of the model guideline instrument sheet at the Career Development Centre at Makassar Polytechnic	**A**			

Source: Research Instrument Validators (data processed), 2023

The results of the instrument validation conducted by this validator show that this talent mapping assessment instrument can be run with a validation level of a very valid category and is recommended to be run (assessment score A). The validator's assessment of this instrument is quite varied with an average score of 3.77. Although the average score for this indicator is the lowest score among the 4 (four) instruments validated, the assessment results from the validators are in the highly valid category.

This study adopted the research and development model as a foothold to develop a model that is expected to become a prototype for career management institutions at Makassar Polytechnic. The initial process began with research activities to find problems and collect various information related to career preparation for prospective alumni of Makassar Polytechnic. This process has produced output in the form of information related to career planning issues for prospective alumni. There are two fundamental problems that are often faced by final cadets and cadets, namely orientation and information related to the current world of work, and recognition of their abilities. These two issues often become obstacles for them to prepare themselves.

After receiving information and finding the root of the problem, the next stage is to plan (planning) which includes activities to formulatethe objectives to be achieved, as well as research design. This activity is part of thestages or series of research processes using the research and development method. Operationally, the planning process is carried out after identification of the problem, so this research will answer the problems faced by cadets and cadets, namely career preparation and information on the world of work. These two problems certainly require an approach or model that is integrated and planned programmatically by the Makassar Polytechnic Career Development Centre. This model or programme will be tested for validation and accuracy in solving these two problems and answering the problem formulation.

The current model developed by the Makassar Polytechnic Career Development Centre is talent mapping which is an approach or employee recruitment strategy that has been widely used by large companies. The strategy in talent mapping is carried out through various development programmes which include: career acceleration programmes, experience enrichment, coaching and mentoring, and rewarding (Sari & Prasetya, 2017). In essence, talent mapping is a talent mapping instrument that is carried out through a series of tests to see the talents possessed by everyone. Its function can not only be applied in an internal environment to see the potential possessed by cadets and cadets, but can be applied in an external environment to see the potential of individuals during the recruitment process. This can help universities in mapping the potential of cadets and cadets according to their talents and choosing the right majors for their future careers. This means that future policies do not only look at the choice of study programmes of cadets and cadets when they register, but when they are declared to have passed the selection, there are still opportunities for them to switch study programmes based on their interests and talents obtained from their talent mapping test results.

After going through the planning process, the next stage is the develop preliminary activity. This stage is determining the design of the model to be developed, the research facilities and infrastructure needed, the stages of implementing the design test in the field, and determining the job descriptions of the parties involved in the research (Zheng, Luo, & Liu, 2019). As explained in the research method, the implementation of this model test involved many elements, including cadets and final semester cadets who became the field testing of the model. The first testing was carried out on 104 cadets and cadets of Makassar Polytechnic who were taken from all majors / study programmes. Furthermore, the second testing was carried out again as many as 104 people with the same cadets and cadets by involving external parties as model testers by involving the Makassar Polytechnic Career Development Centre manager to monitor and evaluate the model comprehensively.

The next step is preliminary field-testing activities, namely the initial stage of field-testing activities (first stage) involving 104 cadets and cadets. In this step, data collection and analysis were carried out through interviews and observations of the implementation of talent mapping activities carried out by the Career Development Centre. This model testing was carried out for 2 (months) months on 104 cadets and cadets of Makassar Polytechnic. This activity is distributed into 4 (four) study programmes within the scope of Makassar Polytechnic, namely Air Traffic Management (MLLU), Airport Technology (TBU), Air Navigation Technology (TNU), and Aircraft Maintenance Technology (TPPU).

In the preliminary field-testing stage, several learning topics were given as part of the talent mapping process. Learning topics at this stage include introduction to job preparation, finding sources of motivation, knowing yourself, SMART goals, priority scale, 21st century skills, CV 101, finding job vacancies, correspondence etiquette, preparing for job interviews, success in the workplace, greetings in English, use of expressions in English, communicating directly with consumers, followed by closing the programme and awarding. This stage uses a long duration of time for 2 (two) months. In this limited model test, improvement steps were then taken in the form of programme interventions as an effort to improve the model.

The testing stage carried out for the development of the talent mapping model for cadets and cadets of Makassar Polytechnic is through a survey by asking a questionnaire or a few questions to cadets and cadets related to a series of career preparation training programmes that have been carried out as a form of testing of the research & development approach applied in this study.

5. CONCLUSION

Makassar Polytechnic has developed a career model in the form of a career path progression (CPP) approach which is still relatively new in the university environment, especially in vocational campuses. This model is more often used by large companies such as multinational companies and BUMN in recruiting and developing employee abilities. In the research conducted, the model was diversified by adding an assessment test process through a talent mapping programme as one of the stages in CPP. The results of this activity show that the ability of cadets and cadets in preparing their careers is quite good. As many as 34.62 per cent of cadets and cadets obtained very good assessment results, 54.81 per cent obtained good category results, and the remaining 10.58 per cent obtained quite good results. This shows that the CPP model developed by Makassar Polytechnic can help cadets and midshipmen in preparing their careers better. In the CPP model, cadets and midshipmen will be given information about the career paths available at Makassar Polytechnic, as well as the skills and competencies needed to achieve these career paths. In addition, cadets and midshipmen will also be given the opportunity to take part in training and skills development programmes that are in accordance with the chosen career path. Thus, the CPP model can help cadets and midshipmen to develop their careers in a more structured and directed manner. Overall, the CPP model developed by Makassar Polytechnic can be a good alternative to assist cadets and midshipmen in preparing their careers in the future. With the assessment test process through the talent mapping programme, cadets and cadets can find out the extent of their abilities and skills in achieving the desired career path. It is hoped that this model can continue to be developed and applied in the university environment, especially in vocational campuses, to help students prepare their careers in the future.

REFERENCES

1. Afrida, Y., & Iskandar, R. (2017). Human Resource Development at Career Center Institutions in State Islamic Religious Universities. Journal of Islamic Economic Studies, 2 No 2.
2. Aka, K. A. (2019). Integration Borg & Gall (1983) and Lee & Owen (2004) models as an alternative model of design-based research of interactive multimedia in elementary school. *Journal of Physics: Conference Series*, *1318*(1), 012022. https://doi.org/10.1088/1742-6596/1318/1/012022
3. Demissie, M. M., Herut, A. H., Yimer, B. M., Bareke, M. L., Agezew, B. H., Dedho, N. H., & Lebeta, M. F. (2021). Graduates' Unemployment and Associated Factors in Ethiopia: Analysis of Higher Education Graduates' Perspectives. *Education Research International*, *2021*, 4638264. https://doi.org/10.1155/2021/4638264
4. Greco, L. M., & Kraimer, M. L. (2020). Goal-setting in the career management process: An identity theory perspective. *Journal of Applied Psychology*, *105*(1), 40–57. https://doi.org/10.1037/apl0000424
5. Meyer, D. F., & Mncayi, P. (2021). An analysis of underemployment among young graduates: The case of a higher education institution in South Africa. *Economies*, *9*(4), 1–16. https://doi.org/10.3390/economies9040196 6. Pasmawati, H. (2018). The Urgency of Career Guidance in Higher Education to help final year students' readiness to enter the world of work. Syi'ar Scientific Journal,

18(1), 1. https://doi.org/10.29300/syr.v18i1.1243
7. Rahma, F., Yusuf, A. M., && Afdal, A. (2021). Career Guidance and Counseling in Higher Education. SCHOULID: Indonesian Journal of School Counselling, 6(2), 133-139.
8. Rahman, Aulia; Mahmud, A. K. (2022). Journal of Economics and Business, Vol. 9 No. 1 January 2022 E - ISSN Article Info Article History: Keyword: 9(1), 33–43.
9. Sandowil, O., Yusuf, A. M., & Afdal, A. (2021). Career Guidance and Career Education in Trait and Factor. Tambusai Education Journal, 5, 3005–3013.
10. Sari, C., & Prasetya, A. (2017). Analysis of the implementation of strategies in talent management as an effort to plan succession and retain talent (Study at PT. Angkasa Pura I Juanda Airport Branch Office). Brawijaya University Undergraduate Business Administration Journal, 50(4), 146–154.
11. Whitaker, N. (2017). *The Effects of Unemployment on College Graduates*. 1–10.
12. Zheng, S., Luo, B., & Liu, Z. (2013). Empirical research on the industrial R&D investment and “two oriented society” construction in China—On the analysis of Anhui industrial enterprise. *Proceedings of International Conference on Computers and Industrial Engineering, CIE*, *2*(February), 868–877.