



Analysis and Identification of Human Resource Needs in the University Vocational Program

Abdul Hafidz^(✉), Martadi, Warju, Weni Rosdiana, and Gading Gamaputra

Vocational Program, State University of Surabaya, Surabaya, Indonesia
abdulhafidz@unesa.ac.id

Abstract. The needs of lecturers and educational staff need to be analyzed and should be stated in the strategic plan (Renstra) of Vocational human resources every 5 years. Currently, Vocational does not have a Strategic Plan for the next 5 years. This research is expected to be the basis for the preparation of The Strategic Plan from 2022 to 2023. The specific purpose of this study is to (1) analyze the needs of lecturers in the Unesa Vocational Program (2) analyze the needs of educational personnel in the Unesa Vocational Program. This research uses qualitative descriptive research using literature study methods, observations, and interviews. The results of the study are the total needs of education staff is 11 employees, namely library material managers as many as 2 employees, student and alumni administrators as 1 employee, IT personnel (data and information managers as many as 1 employee), state property managers (as many as 3 employees), staffing managers as many as 2 employees, archive managers as many as 1 employee, waiters as many as 1 employee and drivers as many as 1 employee.

Keywords: human resources · lectures · education staff · alumni

1 Introduction

Human resources (HR) are an important part of an organization or institution. HR is a driver, thinker, and planner in achieving the goals of the institution. Human resources need to be managed properly so that the institution can run and continue to grow Syaiful Bahri Jamarah. Without HR management, an institution will not be able to run and develop properly. According to Soetrisno, human resource is a resourced human being and in order to be strong, human resources must be improved in quality and competence [1, 2].

To realize quality and development, the Vocational Program of Surabaya State University (Unesa) was formed which was born from the organizational development of the Diploma Three (D3) and Vocational Program Study in four faculties at Surabaya State University, including the Faculty of Engineering (FT), faculty of social sciences and law (FISH), Faculty of Language and Arts (FBS), and Faculty of Sports Sciences (FIO). Incorporation into a vocational program has a planning basis using the theory of Robbins & Coulter [3] “planning provides direction, planning reduces uncertainty, planning minimizes waste and redundancy, planning establishes the goals or standards used in

Table 1. Distribution of Unesa Vocational Program lecturers based on academic qualifications (S2 and S3) as of September 2021

No.	Level of education	Percentage
1	Master	19%
2	Doctor	81%
Total		100%

Table 2. Distribution of Unesa Vocational Education staff based on academic qualifications as of June 2021

No	Level of education	Percent
1	Senior High School	54%
2	Bachelor	32%
3	Master	14%
Total		100%

controlling". Organizational development then makes a strategy in one organizational forum to achieve organizational goals. The vocational program consists of 10 Vocational Programs as stated in the Decree of the Minister of Research, Technology and Higher Education of the Republic of Indonesia No. 1063/KPT/I/2019 concerning permits for opening Study Programs at Surabaya State University, among others: (a) Vocational Program Study of Mechanical Engineering; (b) Vocational Program Study of Electrical Engineering; (c) Vocational Program Study of Civil Engineering; (d) Vocational Program Study of Program Transportation; (e) Vocational Program Study of Culinary; (f) Vocational Program Study of Fashion; (g) Vocational Program Study of Informatics Management; (h) Vocational Program Study of Public Administration; (i) Vocational Program Study of Graphic Design; and (j) Vocational Program Study of Sports Coaching.

After the establishment of the vocational program, the next thing that needs to be considered is related to the analysis of human resource needs. The needs of human resources include the needs of educators and education personnel. Based on Government Regulation Number 38 of 1992 explained that educators are educational personnel who are in charge of guiding, teaching, and training students. Educators are a major part of education. Educators must have expertise and have a diploma in accordance with their expertise. The task of educators is as a learning resource, facilitator, manager, demonstrator, guide, motivator, evaluator [4].

The number of educators must be proportional according to the number of students. Educators in higher education units must be university graduates who meet certain requirements regulated in the Suderajat Cahyono government regulation (2015) (Tables 1 and 2).

Meanwhile, education staff are personnel who will be assigned to work within the scope prepared through special education and the sincerity of Muhammad Nafi [8],

education staff as supporters in educational institutions that have an important role in the implementation of education. Educational personnel include the head of affairs, administration, laboratory, librarian, security, and hygiene [4]. The number of educational personnel must be in accordance with the needs, and their expertise must be in accordance with the type of work.

Educators and education staff are important human resources for the continuity of education in the Vocational Program. The number and quality of educators and education staff must be regulated in a good HR management. Human resources that are not managed properly will result in the work not being smooth, and the results will not be optimal, and the goals of the institution will not be achieved by Suderajat [6]. The ratio of the needs of lecturers and education staff will always change every year because it is influenced by several factors, including the number of students, the number of study programs, the number of retired/deceased, and the study assignment of [7].

Mintasih Danumiharja [8] explained that there are still many problems in educators, including quantitatively, especially in urban areas, there are quite a lot of them, but in terms of quality and professionalism, they are not as expected. There are still those who are not in accordance with their scientific fields, the ability to deliver material is still lacking, mastery of technology is also lacking.

The problems of educators and education staff found in the field also vary. One of the problems with educators is the number of educators who are not in accordance with the needs of their study programs, so that the workload is overloaded, besides that there are study programs whose number of educators exceeds the number needed by the study program, so they lack their workload.

Problems with education personnel, especially in personnel administration and technicians, namely there are differences in workload on faculties and other work units. So that there is less equalization of workload between one work unit and another work unit. To find a solution to these problems, the needs of lecturers and educational staff. It needs to be analyzed and outlined in the strategic plan of the power, so that effective HR management can be carried out. Based on the background description of the problem above, a study is needed to support the preparation of the Strategic Plan, so that in making policies on HR there are guidelines.

2 Method

This research is a qualitative descriptive research that aims to talk about and solve actual problems, by collecting data, compiling and clarifying them, analyzing and interpreting [9]. Research location in Vocational Program, State University of Surabaya [10]. In this study, the research procedures are stages that are carried out from the beginning of the implementation to the end of the preparation of the research report [11]. This research procedure goes through the preparatory stage, implementation stage, and data analysis stage of research results [12].

- 1) Preparation Stages: observation, proposal, preparation of research instruments and validation.
- 2) Implementation Stages: literature study, observation and interview.
- 3) The data analysis stage of the research results: comparing between literature data, observations and interviews that refer to the comparison of data on the number of needs and the amount that exists, then analyzed based on regulations.

3 Discussion

The number of needs for lecturers and educational personnel in the Unesa Vocational Program refers to the policy in the field of staffing of Surabaya state university related to the nomenclature of functional positions. The needs of lecturers and education staff in vocational programs refer to existing regulations. The Table 3 shows the standard needs of educational personnel in the academic section at the faculty level at Unesa as follows.

The need for academic staff in the vocational program must have a Department, Data and Information Processing, Library Material Manager, Student and Alumni Administration, Personal IT which in total has access to a minimum of 9 people who are kept in service quality improvement. The vocational program also has non-academic needs to support academic activities. This academic support activity also functions in the service process for all existing interests. To regulate the standard number of non-academic education staff needs, rules are given. The number of standards for the needs of non-academic education staff at the Faculty level at Unesa is as follows (Table 4).

The need for non-academic staff must include a financial manager with 4 members, a BMN Manager with 15 people so that the minimum requirement for non-academic personnel is 19 people. Based on the standards for the needs of educational personnel mentioned above and the availability of educational personnel in the Unesa Vocational Program, an overview of the needs of educational personnel is obtained as follows (Table 5).

Table 3. The standard of educational staff needs in the academic section

Academic	Number of educational staff (person/people)
Akademik Manager	–
Faculty	2
Departemen	1
Data and Information Processors	1
Library Material Manager	2
Student and Alumni Administration	2
IT personnel	1
TOTAL	9

Table 4. Standard of non-academic education staff needs

Non-Academic	Number of educational staff (person/people)
Financial Manager	–
BPP	1
PPABP	1
Technical Team	2
BMN Manager	–
Operator SIMAK-BMN	1
Inventory Operator	1
Technical Team	1
Facilities and Infrastructure	2
Staffing Manager	2
General Administration	2
Archival Arranger	1
Service attendants	2
Driver	1
Security Officer	2
TOTAL	19

Table 5. Availability of education staff in the Vocational Program

Name of Job Qualification	Number of Staff Needs
Academic Informational Manager	1
Library Materials Manager	–2
Student and Alumni Administration	–1
IT Personnel (Data and Information Processors)	–1
Financial Manager	0
State Property Manager	–3
Staffing Manager	–2
Archival Arranger	–1
Service attendants	–1
Driver	–1
Total	11

From the explanation above, it can be seen that the education staff in the vocational program is still lacking based on the standards that have been set by the university. These shortcomings include the Library Materials Manager less than 2 people, Student and Alumni Administration less than 1 person, IT Personnel (Data and Information Processors) less than 1 person, State Property Manager less than 3 people, Staffing Manager less than 2 people, Archival Arranger less 1 people, service attendants are less than 1 person and drivers are less than 1 person.

The vocational program has a shortage of 11 education staff. This lack of education staff has the following impacts:

1. The quantity and quality of services that will be provided by the vocational program are experiencing problems.
2. The amount of workload of education staff is greater than the number of existing education staff so that the workload becomes high.
3. The high workload results in the accumulation of work in each section.

The number of lecturers needs in the Vocational Program can see in the Table 6. From the data resulting from the need for the number of lecturers in each study program, it is known that The Vocational Program Study of Public Administration requires an additional 2 lecturers, The Vocational Program Study of Culinary requires an additional 2 lecturers, The Vocational Program Study of Civil Engineering requires an additional 2 lecturers and other study programs already meet the standards.

The shortage of lecturers results in: (1) The ratio between lecturers and students is too high; (2) The high ratio between lecturers and students has a negative impact on the results of the study program accreditation assessment; and (3) The number of teaching lecturers in each class has increased so that the workload of lecturers has increased such as an increase in the number of academic advisors, final assignments, assessment of paper assignments and field research, the number of value entries, all of which have an effect on education.

Table 6. The number of lecturers needs in the Vocational Program

Vocational Study Program	Active Students on 2022	Active Lecturers on 2021	Ratio	Nor Needs Mall	Lecturer Needs on 2022
Vocational Program Study of Graphic Design	144	5	1:36	4	0
Vocational Program Study of Public Administration	358	8	1:45	10	-2
Vocational Program Study of Informatics Management	287	8	1:36	8	0
Vocational Program Study of Culinary	273	6	1:46	8	-2

(continued)

Table 6. (continued)

Vocational Study Program	Active Students on 2022	Active Lecturers on 2021	Ratio	Nor Needs Mall	Lecturer Needs on 2022
Vocational Program Study of Fashion	213	6	1:36	6	0
Vocational Program Study of Electrical Engineering	193	6	1:32	6	0
Vocational Program Study of Mechanical Engineering	215	6	1:36	6	0
Vocational Program Study of Civil Engineering	299	7	1:43	9	-2
Vocational Program Study of Transportation	213	8	1:27	6	2
Vocational Program Study of Sport Coaching	98	9	1:11	3	6
Number of Vocational Program Studies	2293	74	1:31	66	2

4 Conclusion

4.1 Summary

- a) The number of educational personnel needs is 11 employees, namely library material managers as many as 2 employees, student and alumni administration as 1 employee, IT personnel (data and information managers as many as 1 employee), state property managers (as many as 3 employees), Staffing managers as many as 2 employees, archive managers as many as 1 employee, waiters as many as 1 employee and drivers as many as 1 employee.
- b) The number of needs of lecturers of the Vocational Program Study of Public Administration requires 2 lecturers, Vocational Program Study of Culinary requires 2 lecturers, Vocational Program Study of Civil Engineering requires 2 lecturers and 7 other study programs have met the needs.
- c) The number of lecturer needs will increase if student admissions increase so that an ideal ratio of lecturers and students appears.
- d) The need for educational personnel is based on the calculation of workload in each position

4.2 Suggestion

Vocational programs must periodically evaluate each year regarding the number of needs of lecturers and staff who function as a means of controlling the needs of superior human resources.

Acknowledgment. This research was funded by Rector of Universitas Negeri Surabaya. The author would like to thank the Director of Vocational Program Unesa for supporting this research. The authors are also grateful to colleagues for finishing this paper.

Authors' Contributions. Abdul Hafids and Weni Rosdiana conceived the original idea. All authors discussed and agreed with the main focus and ideas of this paper. The authors also collaborated to finishing the paper together.

References

1. E. Soetrisno, *Human Resource Management*. Jakarta: Kencana, 2008.
2. S. Larasati, *Human Resource Management*. Yogyakarta: Deepublish, 2018.
3. M. Robbins, S., P & Coulter, *Management*. London: Pearson Education, 2013.
4. Musriadi, *Educational Profession theoretically and applicatively*. Yogyakarta: Deepublish, 2018.
5. Muhammad Nafi, *Educators in the Concept of Imam Al Ghazali*, Yogyakarta. Deepublish, 2017.
6. A. S. Cahyono, "Pengaruh Media Sosial Terhadap Perubahan Sosial Masyarakat di Indonesia.," *J. Publiciana*, vol. 09, pp. 142-143., 2016.
7. Desilia Purnama Dewi & Harjoyo, *Human Resource Management*. Pamulang: UNPAM Press, 2019.
8. M. Danumiharja, *Profession of Education Personnel*. Yogyakarta: Deepublish, 2014.
9. N. Zuriah, *Methodology of Social Research and Educational Theory of Application*. Jakarta: Bumi Aksara., 2006.
10. Nasution, *Scientific Research Research Methods*. Jakarta: PT Bumi Aksara, 2003.
11. N. Seixas, B., & Smith, "The Qualitative Descriptive Approach in International Comparative Studies.," *Int. J. Heal. Policy Manag.*, vol. 7, p. 780, 2018.
12. Y. S. Denzin, N. K., & Lincoln, *Handbook of Qualitative Research*. Yogyakarta: Student Library., 2009.
13. Aristi, N., Hafiar, H. 2014. Workload Analysis of Educators and Education Staff in Faculty Y University X. *Journal of Communication Studies Unpad* Vol. 02: p. 02. 53–60.
14. Helianty, Y. 2014. Employee Needs Analysis Based on Workload Analysis. *Journal of Reka Integra Itenas* Vol. 01: p. 250-258
15. Hill, Charles, W., & Steven, L. (2008). *Principles of management*. New York: McGraw-Hill/Irwin
16. Indonesian government. 1992. Government Regulation No. 38 of 1992 concerning Education staff
17. Indonesian government. 2003. Law of the Republic of Indonesia Number 20, of 2003, concerning the National Education System.
18. The Government of Indonesia. 2005. Government Regulation of the Republic of Indonesia Number 19 of 2005, concerning Indonesian National Standards
19. Indonesian government. 2014. Permendikbud Number 49 of 2014 concerning National Standards for Higher Education
20. Government of Indonesia. 2016. Presidential Regulation Number 10 of 2016 concerning Lecturers and Education staff at New State Universities

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

