

Functional Instructor Needs for Application of General Services Agency

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Abstract – We determined the number and strategy of instructors functional needs for now and projections in the next five years in the Politeknik Penerbangan Palembang using the Load Analysis method Work and Comparison Ratio. We obtained the data from documentation of Balai Diklat Penerbangan Palembang and then analyzed using the workload analysis method and comparison ratios to find out the number of instructors' needs for now and 5 five years later. The results obtained indicate that the number of instructors currently and future is less than the needs and the strategies that can be taken to overcome are mutations, internal and external recruitment, and preparation of Standard Operating Procedure related to the training of instructors. This paper contributed to official management to develop instructors based on the needs.

Keywords – Instructors Functional Needs, Strategy, Mutations, Internal and External Recruitment, Training of Instructors.

I. INTRODUCTION

Politeknik Penerbangan Palembang was named Balai Diklat Penerbangan Palembang on 2016, and there was less of teaching and educational staff. Educators with certain functional positions, instructors are Civil Servants who are given duties, responsibilities, authority and full rights by authorized officials to carry out training and learning activities to trainees in certain fields or vocational fields (Regulation of Minister Apparatus Number: 36/KEP/M .PAN / 3/2003) are assigned as permanent teaching staff in Politeknik Penerbangan Palembang which only has 2 members. Educational staff are human resources with the status of both Civil servants and Non Civil servants who are assigned as supporting staff for the implementation of education and training activities consist of 77 people.

In order to change the organization of the Palembang Aviation Education Institute into a Public Service Agency, the need for instructors in the next year is greatly needed in

line with the growth in the number of training participants given the current condition of the number of instructors currently available is only 2, whereas based on temporary data per October 2016 the number of training participants has reached 641 participants (Performance Achievement Report, 2016). But the problem that is happening right now is the lack of functional instructors in the Politeknik Penerbangan Palembang based on the data there are only 2 instructors so that as many as 21 educational staff who have competence in the aviation field are assigned to teach in training in the air field training to be sufficient the shortage of instructors based on the Decree of the Head of Politeknik Penerbangan Palembang Number: SK. 007 / BP3P-16 dated January 4, 2016.

Based on initial predictions there is a need for a workload analysis to calculate the need for the number of instructors to educate the number of current training participants and the next 5 (five) years will require more than 2 (two) instructors. Besides that, the calculation of the ability of the number of

teaching hours for an instructor must also be taken into account in relation to the workload of an instructor Public Service Agency.

In addition, there are also matters regarding discrepancies that occur, such as an education staff who only have competence but are not supported by the required level of education, the difficulty of an educational staff in fulfilling credit figures due to the busyness of their main tasks and functions, etc (Soleh, 2019). which is seconded to become educators is difficult and constrained to become educators. Based on this background, the author is interested in conducting an internship with the theme "Instructional Functional Requirements Analysis for Public Service Agencies (Case Study at Politeknik Penerbangan Palembang)" (Abdullah, 2020; Hartiwi et al, 2020).

II. METHODS

This type of research is qualitative with a case study design. In this internship research the data used or analyzed data are quantitative and qualitative data. Quantitative data in the form of numerical data to calculate the number of instructors needed for the next 5 (five) years. Qualitative data is in the form of instructor workload analysis and efforts to meet the needs of the number of instructors. The analysis used in this case of intership is the calculation of the number of instructors needed is based on an analysis of the instructor's functional workload and a comparison ratio based on the number of instructors and the number of graduates, the

calculation of planning or projected needs of instructors for the next 5 (five) years is used Simple Linear Trend and calculation of needs is based on ratio analysis which is also a forecasting technique that uses an index in determining organizational growth, especially to find out the number of instructors' needs in the long run, and analysis of non-compliance that causes the education staff has not become an educator. By describing the factors that cause the teaching staff has not become an educator.

III. RESULTS AND DISCUSSION

Identification of human resources available in the organization (human resource audit)

Knowing the number of instructors available is also a component of planning. An inventory list of the number of instructors available and sourced from the Human Resources Management information system is needed to determine the strengths or weaknesses. From the data it is known that the number of instructors is 2 people, education staff are 77 people, education staff are assisted to teach 21 people, then the percentage of calculation results is known that the percentage of instructors in Palembang BP3 is only 2, 53%, educational staff as much as 97.47%, and education staff those who are taught are 27.27% more than the number of instructors.

Analysis of supply and demand balance (demand and supply analysis)

Table 1: Instructor Workload Analysis

No	Job Description	Out put	Unit	Average Time/Unit (hour)	Total Working Time (Hour)
1.	Participate in Instructional Education and Training and obtain a Certificate of Completion of Education and Training	Certificate of training	2	200	400
2.	Develop training plans for each training item in a package	GBPP	50	30	1500
3.	Arranging the main unit of training topics in one package in accordance with their authority;	SAP	50	30	1500
4.	Make a training eye job sheet in accordance with their authority;	Job sheet	50	26	1300
5.	Develop training modules	Modules	50	40	2000
6.	Teach in training with participants.	Lesson hours	50	80	4000

7.	Train on training with participants	Lesson hours	50	80	4000
8.	Carry out Work Competency Test	Lesson hours	50	40	2000
9.	Make a paper / scientific work in the field of training and learning;	Book	1	600	600
10.	Prepare reports on the results of the implementation of each skill level competency test.	Report	50	20	1000
11.	Hold a Seminar / Workshop / Conference	Certificate of conference	2	56	112
Total Working Hours					18412 hour

Analysis of the supply and demand balance is carried out to find out the number of instructors 'needs in meeting the instructors' needs in the implementation of education and training. One way to find out the number of instructors needs is to calculate the workload borne by the instructor. The main task of the instructor is to carry out training and learning activities and develop training. In the calculation of instructor workload analysis is based on the Minister of Transportation

Regulation No. 40 of 2012 concerning Workload Analysis and PermenB RB Number 36 of 2003 concerning Instructor Functional Position as well as employee performance target documents from the instructor's position which is an instructor's work contract in one year. When using an instructor's effective time in one year the instructor's needs can be calculated as follows:

$$\begin{aligned}
 \text{Instructure of needs} &= \frac{\text{amaount work time per year}}{\text{amaount effective work time per year}} \times 1 \text{ person} \\
 &= \frac{18.412 \text{ hour}}{1.200 \text{ hou}} \times 1 \text{ person} \\
 &= 15,34 \text{ person} \approx 16 \text{ person}
 \end{aligned}$$

Based on the calculation above, it can be seen that currently the number of instructors that must be available based on an analysis of workload and effective working time is 16 people while there are only 2 people meaning that there is a shortage of 14 instructors.

Ratio of Instructor Workforce Comparison with Training Participants

Pursuant to Regulation of the Director General of Sea Transportation Number: HK.103 / 2/12 / DJPL-14 Regarding Instructions for Ratification of the Maritime Training and Education Program at the Education and Training Aid Medical Training Program Institute. Referring to the regulation it is assumed that the activities carried out are the same, namely the management of the implementation of education and technical training with the object of the training participants is the transportation apparatus.

From these regulations it is known that the fixed teacher ratio is at least 1: 60; the ratio of all permanent and non-permanent teachers is at least 1: 20; maximum number of

participants is 30 (thirty) per class for theoretical teaching material; For practice in laboratories and group activities the ratio is 1: 6

From the above information, for the existing conditions with 741 graduates participating in the training: Ratio of Permanent Teachers = 1: 60. With the number of graduates in 2016 as many as 741, BP3 Palembang must meet the needs of permanent instructors : $\frac{1}{60} \times 741 \text{ person} = 12,35 \approx 14$ person.

The ratio of all permanent and non-permanent teachers = 1 : 20. With 741 training participants, Palembang BP3 must meet the needs of permanent and non-permanent teachers as much = $\frac{1}{20} \times 741 \text{ person} = 37,05 \approx 38$ person.

Laboratory practicum and comparison ratio group activities 1 : 6. With 741 training participants, Palembang BP3 must meet the needs of permanent and non-permanent teachers in the laboratory or as many group activities = $\frac{1}{6} \times 741 \text{ person} = 123,5 \approx 124$ person.

Projection calculations using Simple Linear Regression

This projection calculation uses graduate data and training participants target of the last 5 (five) years obtained from Lakip BP3 Palembang in 2016 where the formula used is:

$$Y = 800,8 + 8,4 (X)$$

Table 2 : projection calculation used graduate data and training participants form BP3 Palembang period 2017 – 2021

year	Period (X)	Projection graduated Y (x) =
2017	6	852
2018	7	860
2019	8	868
2020	9	877
2021	10	885

From the results of the calculation of projections up to 2021 the instructor needs with a ratio of 1: 60 then the needs amount to 15 people.

Analysis of Non-Matching Education Personnel has not been able to meet the needs of instructors

Analysis of Non-Matching Education Personnel has not been able to meet the needs of instructors in this paper are at present 3 non-permanent lecturers occupy structural positions, at present 3 non-permanent lecturers occupy structural positions (Ivanova et al, 2020). Non-permanent teachers who have not met the administrative requirements to be appointed functional instructors have 4 people: 2 (two) have graduated from S1 but have not yet received diploma adjustments so that they are still in SMK, 1 (one) person has not have experience in the field of training and learning for 2 (two) years, and 1 (one) person has a Retirement Age Limit starting from 2016 so that all of them cannot be proposed to become functional instructors, one non-permanent teaching staff in the medical field is a doctor and is in the process of submitting to be a functional doctor, one non-permanent lecturer is undergoing a Learning Task at Gajah Mada University 4. Yogyakarta, three people are undergoing maintenance procedures to be appointed as permanent instructors, the lack of knowledge about the instructor's functional position either by standard operational procedures in BP3 Palembang is also the reason for 4 (non-permanent) teaching staff. The absence of SOPs for submission to be functional is also difficult for employees and precarious

teachers to propose to become functional instructors, three non-permanent instructors have problems if they become functional instructors it will be difficult to collect Credit Score Submissions (PAK) because they only teach in a few training courses.

IV. CASE DISCUSSION

Existing conditions instructors need an average of 44 permanent and non-permanent people. Whereas specifically for instructors, it still needs 16 people and only 2 people are available so that the shortage is 14 people. If the need for the next 5 (five) years goes hand in hand with the increase in the number of training participants, the instructor's needs will also increase if, based on the number of graduates in 2021, 19 permanent instructors are needed and if based on the total target of the Palembang BP3 Strategic Plan in 2019, 32 permanent instructor person. The instructor's needs are still prioritized for instructors with PKP-PK and Aviation Security (AVSEC) qualifications because they are in line with the direction of the Head of the Transportation Human Resources Development Agency for the Politeknik Penerbangan Palembang to become an education center for PKP-PK and AVSEC competencies. Besides that, the needs of PKP-PK and AVSEC instructors are more dominant because the need for such training is very high, it can be seen from the number of training implementation each year is very much. It is expected that meeting the needs of 14 instructors based on analysis and calculation can meet the shortage of PKP-PK instructors by 4 people, AVSEC Instructors 4, Air Traffic Instructors 4 people, Air Navigation Technical Instructors 1 person, Electrical Engineering Instructors 1 person and Technical Instructors Civil 1 person (Septiani and Cahyono, 2019; Soleh et al, 2019).

V. CONCLUSIONS

Based on the analysis and discussion of the case above the following conclusions can be obtained if based on an analysis of instructor workload of 18,412 hours / year it takes 16 permanent instructors with an effective work time of 1,200 hours / year. With a comparative ratio of calculations based on the number of training participants in Palembang at BP3 currently numbering 741 people, the instructor needs remain to reach 14 people while there are only 2 permanent instructors available so that there are 12 permanent instructors. Based on the current target of 1,096 graduates, 19 permanent instructors are needed and 17 are lacking. Based on the results of forecasting using a simple linear trend and a ratio of 1: 60 based on the number of graduates, the instructor's needs can be projected for the next 5 years, namely in 2021 as many as 885 graduates and 15 permanent

instructors. If based on the Palembang BP3 RENSTRA and a ratio of 1: 60 then the need for 2019 with a total target of 1,870 graduates requires 32 permanent instructors, and there are some discrepancies that cause precarious teachers to not be able to meet the shortage of permanent instructors' needs at BP3 Palembang. To overcome the discrepancies that have an impact on the lack of instructors in Palembang BP3 can be done with mutation and or recruitment strategies both internally and externally.

VI. RECOMMENDATIONS

From the results of the above research it can be suggested 1) conduct 2 steps strategy in meeting the needs of fixed instructors, namely by offering mutations to become functional instructors to non-permanent teachers and recruiting to become permanent instructors at the Politeknik Penerbangan Palembang; 2) there is a need for socialization regarding instructor functional positions related to the lack of knowledge of employees in general and non-permanent instructors in particular regarding instructor functional positions; 3) there needs to be a Standard Operating Procedure (SOP) related to submitting an application to become a functional instructor for non-permanent instructors and other employees who are interested and eligible to become instructors and return the instructor's functional management authority to the staffing officer in accordance with applicable regulations; 4) there is a need for staffing supervisors who specifically handle the administrative administration system.

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