The Analysis of Lecturers Competence in Teaching and Learning Process of Cadets At Makassar Marine Polytechnic

Endang Lestari  
Nautical Department  
Politeknik Ilmu Pelayaran Makassar  
South Sulawesi, Indonesia  
lestarimaniezt@yahoo.com

Abstract. This Study aims to determine the competence of lecturers in the learning process of cadets at Makassar Marine Polytechnic (PIP Makassar).)

The research method used is a survey method to describe the existing conditions by using a questionnaire as a data collection instrument with a focus of research on cadets samples totaling 96 people consisting of Nautical, technique and management cadets.

The results of the study show that the lecturers of PIP Makassar have competency standards that must be possessed by a lecturer. This can be seen from the four competencies studied, where the answers chosen by the respondents for (1) the competence of the lecturers from the pedagogic aspect have met the standards in which the lecturer is able to use the right methods and media, can create a good learning environment while providing guidance and motivation to cadets; (2) lecturer competence from the personality aspect has fulfilled the standard in which the lecturer is able to provide a good example, duty and authority in front of the cadets but still polite when speaking, as well as neat dress; (3) lecturer competence from the professional aspect has met the standards where the lecturer has mastered the material/teaching material, can manage the class well as well as the lecturer always gives training tasks to cadets, and (4) lecturer competence from the social aspect has met the standards where the lecturer is capable of communicating with cadets and interact with parents/guardians of cadets, as well as establish communication and intimacy with peers.

Keywords—Lecturer competence, teaching and learning Process

I. INTRODUCTION

In the era of globalization the maritime world is growing rapidly, which is marked by the increasing number of large and small vessels equipped with sophisticated and modern equipment. Therefore, skilled human resources are needed to be able to operate these sophisticated and modern equipment so that they can carry out their duties and responsibilities well on board.

To answer this matter the PIP Makassar appeared to produce a Commercial Shipping Officer have international qualifications and skills according to current maritime education development. To produce Commercial Shipping Officers who have international qualifications and skills, the role of lecturers is highly expected to shape, organize and hone the skills of prospective seafarers so that they are truly capable of carrying out their functions and roles in matters relating to shipping safety.

The number of shipping accidents happened, apart from being caused by external factors or natural factors, 80 percent of which were caused by human error manning the ship so that many took lives and material casualties. One example that still remains today is the occurrence of KM. Tampomas II, which burned and sank around the Masalembo island of Pangkep Islands, South Sulawesi, as well as the sinking of KM passenger ships. Senopati Nusantara, KM. Levina and KM Trista that killed many passengers.

To be able to reduce the risk of an accident at sea, it is expected that PIP Makassar will produce prospective sailors who have good quality through increasing the role of lecturer competence. Decree of the Head of the Education and Training Agency for Transportation Number: SK.233 / HK.602/RD 98 dated July 10, 1998 concerning Guidelines for Organizing Marine Education, has been attempted to improve the competence of lecturers by stipulating the requirements for teachers. Therefore, the competence of lecturers in PIP Makassar basically has been seen in the requirements set by the lecturer.

Based on this description, it is expected that lecturers within the PIP Makassar scope have high knowledge and skills as human resources, so that they have a high quality of work and will ultimately support the achievement of institutional objectives namely the Makassar Marine Polytechnic (PIP Makassar).

One of the efforts to improve knowledge and skills as a quality human resource is by attending education and training which is the focus of this research both formal education (general education to higher levels, namely post graduate and Ph. D programs) and special education in accordance with the fields voyages namely (ANT II, ATT II, ANT I and ATT I), general education and special education.

PIP Makassar seeks to improve the knowledge and skills of human resources (lecturer competence) by looking at the number of lecturers who have reached 41 people for S2 and 8 people for S3.

PIP Makassarr has also attempted to improve the lecturers’ competence by involving lecturers in special education both in the Nautical Department and the Technical department. Almost all lecturers have participated in a special education and training program for both
departments. This shows that the quality of the PIP Makassar lecturers is very concerned.

Thus, besides the quality of good education, there is also the availability of qualified lecturers who can encourage the creation of qualified, creative and productive seafaring candidates. One characteristic of good quality education is the creation of a good learning process (starting from planning, implementing and evaluating).

The ability of lecturers in teaching is one of the determinants of the achievement of a good teaching and learning process. The role of lecturers in the teaching and learning process is also influenced by the motivation of the lecturers themselves in relation to their responsibilities as an educator. The motivation of the lecturer in carrying out his duties properly will encourage the achievement of successful teaching and learning for students (cadets). With this, the PIP Makassar will be able to produce a qualified commercial shipping officer, skilled and responsible in carrying out his duties on board so that the expected level of ship accidents at sea can be reduced.

Therefore, the main problem in this study is the competence of lecturers in the teaching and learning process of cadets in PIP Makassar

II. LITERATURE REVIEW

A. Human Resource Management

Human Resource Management (HRM) is a science that teaches about how to regulate relationships and the role of resources owned by each individual efficiently and effectively. [18] defines HRM as follows: "Human resource management is the science and art of managing relationships and the role of the workforce to be effective and efficient in helping the realization of company goals, employees and society". Furthermore, [21 and 2] "Human resource management is the development and utilization of employees in order to achieve the goals and objectives of effective individuals, organizations, communities, nations". HRM as an effort to develop the potential of employees through several trainings, both general and special in order to bring employees who are truly competent in their fields.

Then [3] stated that: "Human resource management is an approach to human management based on four basic principles, namely: 1) Human resources are the most important assets owned by an organization, 2) Success can be achieved if all elements in the organization are interrelated and contribute to the achievement of corporate goals and strategic planning, 3) Culture and corporate values will have a major influence on the best achievement results, 4) Management of human resources, related to integration that is all members of the member organization involved and working same to achieve common goals ".

Another opinion expressed by [43] was: "Human Resource Management as the withdrawal, selection, development, use and maintenance of human resources by the organization", as stated the definition of Human Resource Management proposed by [is as follows: "It is a planning, organizing, coordinating, implementing, and supervising the procurement, development, remuneration, integration, maintenance and employment of companies in order to achieve organizational goals".

Whereas according to [42, 33 and 18], definition of Human Resource Management (HRM) uses the term labor management as a substitute for human resource management.

Based on some of the above understanding, it can be concluded that Human Resource Management is a management and utilization of resources available to individuals to achieve organizational goals. Human Resource Management is essentially a series of activities to organize individual members of the organization and is the most important wealth factor owned by an organization as a key to success for the organization.

B. Education Management

Education management can be defined as the art and science of managing educational resources to realize a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and the skills needed by themselves, society, nation and state.

Management education can also be defined as the process of planning, organizing, directing and controlling educational resources to achieve educational goals effectively, efficiently, independently and accountably [46, 14 and 7]

Furthermore [15] suggests that: "Management of education is a science that learns how to organize resources to achieve the goals that have been set productively and how to create a good atmosphere for humans who participate in achieving goals that are mutually agreed upon".

Another opinion was expressed by [32 and 38] that management education is a series of activities or the whole process of controlling the business cooperation of a group of people to achieve educational goals, in a planned and systematic manner held in a particular environment, especially formal education institutions.

Finally Education Management according to [40] is the application of Management science in the world of education or as an application of Management in coaching, developing, and controlling business and educational practices. Management education is the application of principles, concepts and management theories in educational activities to achieve educational goals effectively and efficiently.

C. Principles and Functions Of Education Management

1) Principles of educational Management: The principles of education management formulated by [15 and 47] are as follows:
   a) Prioritize goals above personal interests and the interests of the working mechanism
   b) Coordinate authority and responsibility
   c) Giving responsibility to school personnel should be in accordance with their characteristics and abilities
   d) Know well the human psychological factors

2) Management Function: Management functions that are in accordance with the educational performance profile in general are carrying out the functions planning, organizing, staffing, coordinating, leading, reporting and controlling.

3) Purpose and Benefit of Education Management: According to [19] the objectives and benefits of education management include:
a) The realization of a learning atmosphere and an active, creative, effective, fun and meaningful learning process
b) The creation of students who actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation and state.
c) Fulfillment of one of the 5 competencies of education personnel (including managerial competence of education personnel as manager)
d) Achieving educational goals effectively and efficiently
e) The availability of education personnel with theories about the process and tasks of educational administration (supported by the profession as an education management manager or consultant)
f) The top issue is the quality of education, because 80% of quality problems are caused by management
g) The creation of education plans that are equitable, quality, relevant and accountable
h) Improving the positive image of education

4) Factor Affecting Educational Management Behavior:
Philosophically, human behavior is formed by the interaction between humans, the organizational climate and the system adopted. These three interactions, both individually and jointly interact with their external environment.

D. Lecturer Competency

Competence or ability is the nature of a person which in itself is related to the implementation of a job that is carried out effectively or very successfully [1]. Competence can be in the form of goals, temperament, self-concept, attitude or value, mastery of problems, or behavioral skills [8, 36, 24, 48 and 23]. Lecturer competence can be defined as mastery of knowledge, skills, values and attitudes reflected in the habit of thinking and acting in the profession as a lecturer.

Competence is a set of responsible intelligence actions that must be owned by a person as a condition to be considered capable of carrying out tasks in a particular field of work. Intelligence must be shown as skill, accuracy and success in acting. The nature of responsibility must be shown as the truth of action, both in terms of science, technology and ethics. In the sense that the action is correct in terms of science, it is efficient, effective, and has appeal from the point of view of technology, and is good in terms of ethics [30].

To be able to become a lecturer who has competence, it is required to have the ability to develop three aspects of competence that exist in him, namely personal competence, professional competence and community competence [35 and 23]. Furthermore, Educator Profession in [23] classifies the four competencies for sub competencies as follows: Pedagogic competence [26], personality competence, social competence, and professional competence [27]. The principles of learning carried out in PIP Makassar are motivational principles, context principles, directional principles, principles of social relations, principles of work-learning, principles of individualization, principles of developing learning strategies, and principles of problem solving.

III. RESEARCH METHOD

This research is a survey research which is a research that takes samples from the population and uses questionnaires as the main data collection instrument.

On the other hand it is stated that the use of survey methods is used not only to describe existing conditions, but also to compare these conditions with predetermined criteria or to assess the effectiveness of the program.

A. Population and Samples

The population in this study were all cadets in the VIII semester at the Makassar Sailing Polytechnic, amounting to 135 peoples spread over 3 majors namely Nautical 65 peoples, Technical 55 peoples, and Management (KALK) 15 peoples. The number of samples taken with an error rate of 5% of each part of the total population of 135 peoples set is 96 peoples.

B. Sampling Technique

Sampling in this study was carried out by proportional random sampling technique, which is sampling technique by taking into account proportional amounts by giving the same information to each member of the sub-population. To get a representative result, it will take a sample from the Makassar Maritime Science Polytechnic Cadet VIII in three different majors.

C. Data Collection Techniques

Data collection in this study uses the following methods:

1) Questionnaire

In the questionnaire technique a likert scale is used where the questions posed to the respondent are given a gradation from very positive to very negative which contains written questions that refer to the research variables given to the respondent

2) Interview

Interviews are data collection techniques used by researchers to obtain data and information directly from informants who have been determined by researchers who believe that Assistant Director I, Head of Staff Affairs, 3 lecturers with different majors, 3 cadets in different majors and 2 people PIP Makassar alumni as informants to conduct interviews in accordance with their respective experience and knowledge capacity.

3) Documentation

Document review is carried out by seeking information in the form of documents as secondary data available at research locations that relate to lecturer competencies such as lecturer assessment reports so that they can be used as a reference for further discussion.
D. Research Instruments

The concept that underlies the preparation of instruments is about the competence of lecturers in the learning process of cadets and departs from research variable indicators derived from dimensions based on the theory of each variable that has been built. Furthermore, the indicators are translated into grids to produce several questions.

E. Data Analysis Technique

All research data collected, then analyzed using quantitative descriptive analysis. This technique is intended to describe the competencies possessed by lecturers in the teaching and learning process of cadets in Makassar PIP in terms of: (1) Pedagogic competence (2) Personality competence (3) Professional competence (4) Social competence.

The formula used in this data analysis technique uses the Frequency Distribution formula:

\[ P = \frac{f}{n} \times 100 \]

Where is :
- P = Procedure
- F = Frequency of respondent's answer
- N = Number of respondents

While the scale used to measure the success or competence of lecturers is:
- 1.0 - 1.8: Never / No
- 1.8 - 2.6: Rarely / Less
- 2.6 - 3.4: Sometimes / Enough
- 3.4 - 4.2: Frequent / Good
- 4.2 - 5.0: Always / Very Good

The research instruments that were disseminated were then analyzed by quantitative descriptive analysis or looking for frequencies and percentages of the eighth semester cadets samples in the three different departments regarding lecturer competence in the learning process of cadets in PIP Makassar.

IV. RESULTS

Based on the description of the competence of Makassar PIP lecturers from the pedagogic, personality, professional and social aspects that have been analyzed previously. So the following are the results of the recapitulation of the frequency distribution data of the average score of respondents' responses to the competency of the Makassar Polytechnic Science lecturers from the Pedagogic, Personality, Professional, and Social aspects, as follows:

1. Respondents' responses regarding the competence of the lecturers of the PIP Makassar from the pedagogical aspect showed good scores or the highest average score of respondents was 44.70 percent. This proves that the Lecturer of Makassar Sailing Polytechnic has been able to do his job well in managing cadets learning.
2. Respondents' responses regarding the competence of PIP Makassar lecturers from the personality aspect showed the good score or the highest average score of 40.00 percent respondents. This proves that the Lecturers of Makassar Sailing Polytechnic have been able to show good personality so that they can be role models and role models for cadets.
3. Respondents' responses regarding the competence of PIP Makassar lecturers from the professional aspect showed the good score or with the highest average score of 41.40 percent. This proves that PIP Makassar lecturers have been able to carry out their duties and responsibilities as professional lecturers, namely lecturers who are able to master the learning material widely and deeply.
4. Respondents' responses regarding the competence of Makassar PIP lecturers from the social aspect showed the good score or the highest average score of 43.00 percent respondents.

Base on the calculation of competency Makassar PIP lecturers are also professional lecturers in the field of marine education. Therefore, PIP Makassar lecturers also have standard competencies that must be possessed by a lecturer. One of the competencies possessed is pedagogic competence as stated in [27] that one of the pedagogic competencies had understand students in depth. According to the results of the interview, cadets admitted that the lecturers had guided according to the character of each cadet. This illustrates that Makassar PIP lecturers have been able to understand students individually.

Related to [27] opinion that understanding of students is by paying special attention to biological differences, intellectual differences and psychological differences with their respective aspects, so as to be able to understand their cadets and be able to provide guidance individually according to biological, intellectual and psychological differences.

According to the informant, PIP Makassar lecturers have been able to develop a syllabus. Although the standard used is international standards (IMO), but the lecturers have been able to provide material to cadets that are easily understood by cadets.

This can be seen in Makassar PIP lecturers who have mastered the components in learning planning, among others, according to [26], that the objectives, content of learning activities, media and learning resources and evaluation so that the PIP Makassar lecturer has competency as a lecturer.

One part of learning planning is the use of media and learning resources. According to informants, the PIP Makassar lecturers have used the method variedly, so can using the media while learning the practice well, so that they can be more interested in learning.

While in terms of evaluation, according to the informant, the lecturer gave a variety of evaluations, sometimes the lecturer did question and answer, gave questions at the end of the lesson and there were even lecturers who gave questions before the material was taught.

In line with this, Makassar PIP lecturers have the ability or competence in providing evaluation, in accordance with [28], evaluation is an action or process to determine the value of an action or a process to determine the value of something. While according to Law No. 20 of 2003 the learning evaluation of students was carried out to monitor the process, progress and improvement of students’ learning outcomes on an ongoing basis.

V. CONCLUSIONS

Based on the results of the research described earlier, it can be concluded that the competence of lecturers in the
Makassar PIP which includes pedagogic competence, personal competence, professional competence, and social competence, has met national education competency standards, although not maximally.

REFERENCES

[1] Alain Mitrat, 1995, Human Resource Management,
[2] Anmar Teguh Sulistiyana and Rosidah, 2003, Human Resource Management., Graha Ilmu: Yogyakarta.
[3] Armstrong, 2000, The Government Performance and Result Act. Of 1993 A Mandate for Strategik Planning and Performance Service, (terjemahan) Institute Arlington Virginia, AS
[4] Anwar A.Pahru Mangkunegara. 2005. HR Performance Evaluation. Bandung, PT. Refika Aditama.
[5] Arief, 1993, Introduction to Human Resource Management, Jakarta, Balai Pustaka
[6] Ariskanto, Sukarsimi, 1998. Research procedure. A Practice Approach. Jakarta, Rineke Cipta.
[7] Atmodiwirto Soebagio. 2000. Indonesian Education Management. Jakarta, Ardadiyia Jaya.
[8] Batanggi, Achmad, 2001, Public Service Management, Ujung Pandang: Mudul Kaliah STIA LAN
[9] Catheyne Devrye, 1997, Good Service, Good Business, Jakarta, Gramedia
[10] Depdikbud Planning Bureau. 1993. Management of Education Development, Jakarta, Depdikbud.
[11] Depdikbud. 1980Teacher Competence, Jakarta, Depdikbud.
[12] Direktorat Tenaga Kependidikan Depdiknas. 2004. Standar Kompetensi Guru. Jakarta: Depdiknas.
[13] Daryanto, 1998, Human Resource Development, Jakarta, Balai Pustaka
[14] Djam'an Satori. 1980, Education administration, Publikasi FIP IKIP Bandung.
[15] Engkoswara, 1993, Education Management, Jakarta, Balai Pustaka
[16] Gomes Fastio Cardoso, Dr. 2000. Human Resource Management Management, Jakarta, Gunung Agung.
[17] Gouzaly Saydam. 2000, Human Resource Management Management, Jakarta, Gunung Agung.
[18] Hasibuan, S.P. Malayu, H. 2000, Human Resource Management Management, Jakarta. PT. Bumi Aksara
[19] Husein Umar, 2000, Research, Jakarta, Balai Pustaka
[20] Indrawijaya, 1996, Introduction to Motivation, Jakarta, Haji Masagung
[21] Kiggundu, Moses N.,Managing, 1989, Organization in Developing Countries: An Operational and strategic Approach, Kumarian Press, Inc., West Hariford.
[22] Koontz and O'Donnel, 1972, The Essence Of Human Resource Management,成为一名: Toto Budi Santosa, Andi, Jakarta.
[23] Kunandar. 2007, Professional Teachers: Implementation of Education Unit Level Curriculum and success in Teacher certification. Jakarta: Raja Grafindo Persada
[24] Majid, Abdul. 2005. Learning Planning: Developing Teacher Competency Standards. Bandung: Remaja Rosdakarya
[25] Mawi Farid. 2000, ? Fun and Professional Teacher Competence. Jokjakarta, Power Book.
[26] Masitoh dkk. 2005. Learning Planning. Bandung, PT. Remaja Rosda Karya
[27] M. Ali, 1996, Teachers in the Teaching and Learning Process, Bandung, Sinar Baru Algesindo.
[28] M. Soebi sutilko. 2007, Teaching and Learning Strategies, Bandung, PT. Refika Aditama.
[29] Moenar, 1995, Human Resource Development, Jakarta, Balai Pustaka
[30] Muhaimin, 2003, Education Paradigm, Bandung, Remaja Rosda Karya
[31] Nana, Sudihana, 2000. Basics of the Teaching and Learning Process. Bandung, Sinar Baru Algesindo.
[32] Nawawi Hadari. 1981. Education administration, Jakarta, Gunung Agung.
[33] -------------- 2003. Human Resource Management. Jogjakarta, Gajah Mada University Press.
[34] Nurfad, 1998, Education Management, Balai Pustaka, Jakarta.
[35] Priet, A. Sahertiana. 1990. Supervisi Pendidikan dan Dasar Teoritis untuk Praktek Professional. Bandung, Angkasa.
[36] Poerwodarminta WJS. 1976, Teacher Education Based on Competency Approach Jakarta, Bumi Aksara.
[37] Prasetya Irawan. 1997, Human Resource Management, STIA LAN Pers, Jakarta.
[38] Purwoanto. M. Nglim dan Sutadji Djiojopranoto. 1981, Educational Administration and Supervision. Bandung, PT. Remaja Rosda Karya.
[39] Rohani dan Ahmad, 1999, School Education Management, Yogyakarta, Liberty
[40] Sagala syaifal. 2005, Contemporary Education Administration. Bandung, Alfaleta.
[41] Samsudin Sadili. 2006, Human Resource Management. Bandung, CV. Pustaka Setia.
[42] Sastroadiwirio Siswanto. 2002, Management of Indonesian Workers. Jakarta, PT. Gramedia Pustaka Prima.
[43] Sedarmayanti. 2001, Human Resource Management, Bandung, Refika Aditama
[44] Soejadi, F.X. 2000, Organization and Management, Jakarta, Haji Masagung
[45] Sugiyono, 2003, Administrative Research Methods, Bandung, Alfaleta
[46] Sutisna. 1979, Educational Administration and Theoretical Basis for Professional Practice. Bandung, Angkasa
[47] Uno, Hamzah. 2007. Learning Model: Creating a Creative and Effective Teaching and Learning Process. Jakarta: Bumi Aksara.
[48] Usman, Moh. Uzer. 1994. Become a Professional Teacher. Bandung, PT Remaja Rosdakarya