

ANALYSIS OF THE PEDAGOGIC COMPETENCE AND PROFESSIONALISM OF LECTURERS IN SEAMANSHIP POLYTECHNIC MAKASSAR BASED ON THE SAILING PERIOD

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ABSTRACT

This research has two objectives. First, it aims at finding out the influence of the sailing period toward the pedagogic competence of the lecturers in Seamanship Polytechnic Makassar. Second, it aims at finding out the influence of the difference of sailing period toward the professionalism competence of lecturers in Seamanship Polytechnic Makassar. This research was ex-post facto because lecturers in Seamanship Polytechnic Makassar, who were the subjects of this research, have individual characteristics which relate to the experience of sailing time of less than five years, between five years up to ten years and over 10 years. One-way analysis of variance results shows that the sailing period has a significant influence on the probability of 0.00 on pedagogical competence. The sailing period that is less than five years is 3, 32. The sailing period that is between 5 years up to 10 years is 4, 09. The sailing period that is over ten years is 4, 21. In addition, the sailing period has an influence on the professionalism competence with the probability value is 0.00. The sailing period that is less than five years is 4, 25. The sailing period that is between 5 years up to 10 years is 3, 91. The sailing period that is over ten years is 3, 24. It means that the sailing period affects the competence of pedagogic and professionalism of the lecturers. Furthermore, One-way analysis of variance results show that the influence of the sailing period toward the pedagogic competence is getting bigger along with increasing period of sailing. However, it is the opposite of the professionalism competence.

Key words: sailing period, pedagogic competence, professionalism competence

1. INTRODUCTION

The lecturer is one of the main components in the system of education at all levels, including at the University. The roles, duties, and responsibilities of teachers are crucial in realizing the goals of national education. There are some goals of national education. First, it aims at educating the nation's life. Second, it aims at improving the quality of human beings in Indonesia, including the quality of faith, morals, and their mastery of the science, technology, and the arts. Third, it aims at realizing the citizens in Indonesia, who are progressive, equitable, prosperous and polite. A university requires the professional lecturers in order to accomplish the functions, roles, and strategic positions. Lecturer is the most important component in helping students so that they become human beings who are intelligent, innovative, competitive, and having good morals.

Act No. 14 in 2005 [1] and Government Regulation Number 37 in 2009 [2] about the teachers and Lecturers reveal that the lecturers are professional educators and scientists. They have some major tasks in transforming, developing and disseminating knowledge, technology and the arts through education, research and public service. As scientists, the lecturers must have the motivation to work. They must also have academic writing skills. Therefore, they are capable of writing articles that can be published in scientific journals, and they can give a good example of how a person should work well.

Furthermore, the lecturers are also as a qualified educator, who must have a set of competencies, including pedagogic, professional, social, and personality. With these competencies, the lecturers will be able to build a network of cooperation with any agencies in order for the development of education, research and service to the community based on their academic competence.

These competencies are crucial, because the lecturers' competencies determine the quality of the implementation of the three responsibilities of colleges as shown in the activities of professional lecturers. A lecturer is qualified in carrying out his duties professionally if the lecturer has the competency of pedagogy,

professional, personality, social, and institutional facilities, which are necessary for the practice of education, research, and service to the community.

According to Indra Djati Sidi (2003: 37) [3], the lecturer is one of the dominant and strategic factors, which determine the success rate of students in the process of transformation of science and technology, as well as the internalization of ethical and moral.

Professional lecturers are always expected to be able to adjust to the development of science and technology. In relation to this matter, each lecturer must always develop his competence by improving knowledge and skills through experience, either in the form of training or continuing his study.

There are some problems of the lecturer that is still unresolved. Qualification and competence are inadequate. There is a lack of reading interest. Work ethic and commitment are weak. The role of Lecturer in applied research is still weak. There is a lack scientific publication. The lecturers are still less able to manage and implement a process of learning.

The lecturers, in Seamanship Polytechnic Makassar, are required to have two-professionalism competencies. They are competence in teaching and learning process in the classroom and competence in sailing. The requirement to sail on a specific period time should be conducted by the lecturers in order to have the capability in the understanding of marine. However, the phenomenon which happens is that the length of the period of sailing can decrease the other competence of the lecturers.

Based on the description above, there are two problems revealed in this research as follows:

1. Is there an influence of the sailing period toward the pedagogical competence of the lecturers in Seamanship Polytechnic Makassar?
2. Is there an influence of the sailing period toward the professionalism competence of the lecturers in Seamanship Polytechnic Makassar?

Professionalism of Lecturers

In the dictionary of the Indonesian Language, profession is the field work that is based on particular expertise, including education, vocational, and skill. Professional relates to the profession. It requires special abilities to run it. In addition, it requires payment for doing it. The professionalism is quality and action, which are a characteristic of a profession or a professional person. Professionalism relates to the profession and ability to act professionally.

Professions of lecturer show the efforts conducted by the lecturers in managing and organizing the learning in university. Thus, the development of professional lecturers can be interpreted as a broad effort to improve the competence, quality of learning and academic role of educators at the university.

Lecturers are professional educators who have some primary tasks in educating, teaching, guiding, directing, training, assessing, and evaluating the students. Professional is the work or activity conducted by a person, and it becomes a source of life, which requires skill, finesse, or proficiency that meets certain quality standards or norms as well as the need for education of the profession.

Competence of the Lecturers

Some experts give different definitions of competence. Stakeholders expect the needs to obtain professional and superior human resources. The needs referred to in this context are the competence of human resources. Competence refers to the knowledge, skills, abilities, personalities, and characteristics, which directly affect the performance of an individual.

According to Act Number 13 in 2003 article 1 (10) [4] about the employment, Competence is the ability of work for every individual, including aspects of knowledge, skills and attitude to work in accordance with the standards established.

McAshan in Mulyasa (2003) [5] reveals "Competence is the knowledge, skills, abilities and capabilities that a person achieves, which become part of his or her being to the extent, or she can satisfactorily perform particular cognitive, affective, and psychomotor behaviors."

From the explanation above, it can be defined that the lecturers are educators who have the ability to guide the learners in the learning process in a professional manner so that the educational goal can be achieved.

The following will set forth the notion of competency and professional pedagogic lecturer who examined in this study, namely: (1) pedagogic competence is essentially the ability of a lecturer in managing learning learners. Pedagogic competence being one of these types of competencies that must be mastered lecturer, is typical of competence, which will distinguish lecturer with other professions. pedagogical Competence coupled with a mastery of professionals will determine the level of success of the process and learning outcome's learner.

Pedagogic competence in studies of instrument validity and reliability are the competence of the Sailing Technical Academy in Makassar that right with a mastery of educational disciplines and other science-related. Tasks as a teacher who is an average score of the assessment against the management of the school teaching and learning process of a college professor. (2) the competence of professional lecturers is the ability, knowledge, skills and attitudes that a lecturer in running through employment in accordance with the duties with full responsibility. Professional competence in studies of instrument validity and reliability are the competence of the Polytechnic lecturer Science Cruise Makassar is the ability of people skills and the skills and practices of Professor theoretic who is an average score of the assessment against the management of the school teaching and learning process of a college professor.

Experience Sailing Cruise Science Makassar Polytechnic Lecturer

Work experience is a process of knowledge or skills about methods of a job due to the involvement of the employees in the performance of job duties. Work experience is a promotion based on the length of work experience of the employees.

The experience of sailing is work experience someone who works on the boat which shows the length of work on board ship, and the type corresponds to the type of cruise that had befallen him. Sailing experience showed the ability competency of seafarers. The experience of sailing was promulgated by the Directorate General of Sea Transportation as the administration of the Government of the Republic of Indonesia. As stated in Conversation STCW 1978 and amendment that the Government is implementing mandatory training sailors or guarantee that the implementation of the training and assessment of seafarers held refers to the standard of competence as set forth in the STCW Code 1995 [6] and each activity training seafarers must be supported by a system of quality standards. The experience of selling the Polytechnic lecturer Makassar on Cruise Science Lecturer with the competence of seafarers varies. Logically, the longer experience of selling a lecturer is then the higher competence of his sailor suit, which can give impact on the learning process in the classroom.

2. METHODOLOGY

This research includes studies of ex-post facto. This is because the cruise Science Polytechnic lecturers (PIP) who were the subjects of research of Makassar has individual characteristics that are associated with the experience of sailing time of less than five years, between five years up to 10 years and over 10 years. The sample of this research is the cruise Science Polytechnic lecturer Makassar with different sailing as much as 51 people. The composition of the sample of the research based on the sale is as in table 1.

Table 1. Sample Research

The Sail	The Number Of Lecturers
0 – 5 year	14
5 – 10 years	28
above 10 years	9

The instruments used to capture data on the influence of the sail of competency and professionalism of pedagogic competency is the first-attitude scale developed by the researchers. The result's further validated instruments early development through the validation process guarantees (the validity of logic) by competent experts. Result of the validation of the theory was revised and should be referred back to the experts. After that, do the empirical validation of the (validity criteria) through the stage of trials on the subject. The empirical validation of the results was analyzed by using the Product-Moment Correlation. Further validation of the analysis results tested reliability tests aimed at measuring the level of consistency of a test using the equations developed Spearman-Brown (Arikunto, 2013: 107) [7].

Data analysis techniques used in this research is a descriptive and statistical analysis inferential. The statistical descriptive analysis is the analysis of a percentage of the average (mean), maximum score, score minimal and standard deviation. Inferential analysis of the comparative analysis is a technique used by using analysis of variants that are abbreviated with a one-way Anova, particularly Anova (One-way Anova) the test data when a variable contains a single free variable and bound variable.

The analysis of anova is used with basic assumptions, which must be fulfilled, namely (1) the distribution of the data should be normal, (2) each group should come from the same population with the same variants as well. When the numbers of samples in each group then in common variants are negligible. However, when the number of samples in each group is different from the similarity of the variants is required, and (3) sampling was done randomly (random).

3. RESULTS AND DISCUSSION

The pedagogic competence with sailing

Following is the results of the analysis of data about the competence of pedagogic lecturer PIP Makassar in the form of a table, its homogeneity analysis, analysis of anova, variants and analysis group for the sail less than five years, between 5 – 10 years and more than 10 years, following a row.

Table 2. Analysis of its homogeneity between the variances Sailing with the competence of Pedagogic Lecturer PIP Makassar

Levene Statistic	df1	df2	The Significance
2,03	2	48	0,142

Probability of a value greater than the value of 0,142 level of significance of 0.05 (5%), which means that null hypothesis (H₀) accepted and rejected the alternative hypothesis (H_a), and thus concluded that the third variants of the population are identical (homogeneous).

Table 3. Anova analysis between The Sailing with the competence of Pedagogic Lecturer PIP Makassar

Source variants	Sum of Squares	df	Mean Square	Sig.
Between groups	6,54	2	3,27	0,00
In the Group	7,93	48	0,17	
Total	14,47	60		

Table 3 shows that the magnitude of the probability values or their significance for smaller than 0.05 0.00 thus null hypothesis (H0) is denied. This shows that there is a difference between the pedagogic competence sailing less than five years, between 5 – 10 years and over 10 years.

The resulting analysis of different groups (homogeneous subsets) to do if the results of the anova analysis show a significant difference between the sail with competence pedagogic lecturer PIP Makassar, table 4 below are the results of the analysis of the different groups.

Table 4. Analysis of Homogeneous subsets of the sail with the competence of Pedagogic Lecturer PIP Makassar

The Sail	N	The Sail	
		Subset for alpha = 0.05	
		1	2
> 10 year	9	4,21	
5 – 10 year	28	4,09	
< 5 year	14		3,33

From the results of the analysis of homogeneous subsets above seen that on a subset of Group 1, sailing between five years up to 10 years with an average score of 4,09 and sailed in the top 10 of the year with an average score of 4.21, was no different. There are only two subsets on the score at the time the Group sailed for less than 5 years old with an average score of 3.32. This means that the group set sail less than five years the group is different from another sail.

Pedagogic competencies include capabilities about understanding learners and learning managers which educate and dialogue. In these competencies specifically delegated substantive understanding of the ability of professors to contain learners, designing and implementation of learning, student assessment, and the development of learners to actualize its potential range.

Based on the results of the analysis of the three groups the information obtained that the sailing has an impact on the competence of pedagogic lecturer PIP Makassar, each as follows. (1) For a period of less than five-year sailing of 3.32. (2) About 5 years to 10 years of 4.09. (3) The sails over ten years amounted to 4.21.

These results provide information that the sailing period has an impact on the competence of pedagogic lecturer of PIP Makassar. It means that education and training activities of the lecturers during the sailing course of PIP Makassar which is an implementation of government regulation of the Republic of Indonesia No. 7 in 2000 about Seamanship effectively increases the competence of the lecturers who followed it.

Seamanship training activities for Educational Science Lecturer Sailing is a process of educating and training as shown in government regulation of the Republic of Indonesia No.7 in 2000 about Seamanship [8]. On the General provisions chapter 1 stated that the Seamanship is everything to do with figure, education, certificate, authority, as well as the rights and obligations of a sailor. Thus it is said that in the process can go sailing, lecturer practice the competencies, in particular pedagogic competence and professionalism.

Seamanship of educating and training planned and arranged based on specific competencies, namely include the ability with respect to learners understanding and learning managers who educate and dialogic. In these competencies specifically delegated substantive understanding contain the ability of lecturers to learners, designing and implementation of learning, student evaluation assessment, and the development of learners to actualize its potential range. Because in the process of the sailing period, lecturer is also given the task as supervisor for students who are carrying out activities to sailing practice (prala) on board, the internship activities of running for a year that the stages in the completion of education.

Sailor Nautical Skills Certificate referred to in the regulation of the Government of the Republic of Indonesia No.7 in 2000 about Seamanship [8], consists of: (1) Nautical Expert level I Certificate, (2) Nautical Expert level II Certificate, (3) Nautical Expert level III Certificate (4) Nautical Expert level IV Certificate (5) Nautical Expert level V Certificate, and (6) Nautical Expert Basic level Certificate.

Machining Engineering Sailing Skills Certificate referred to in the regulation of the Government of the Republic of Indonesia No.7 in 2000 about Seamanship [8], consists of: (1) Engineering Expert level I Certificate, (2) Engineering Expert level II Certificate, (3) Engineering Expert level III Certificate (4) Engineering Expert level IV Certificate, (5) Engineering Expert level V Certificate, (6) Engineering Expert Basic level Certificate.

Lectures that join the long period sailing program will increase the competence and professionalism of pedagogy that is related to the ability of a lecturer in the field of teaching and learning as well as the supervision and examiner of students. As it known that there are two important terms related to the professions of lecturer at the Ministry of transportation in particular cruise, that ability as a lecturer and ability as examiners.

Ability as a teacher must be obtained when graduating TOT 609 and ability as testers through TOT 312. It is the provisions of the International Maritime Organisation (IMO) which is under the control of the United Nations (UN). On this lecturer of TOT 609 provided matters related to implementation of learning such as curriculum development, the preparation of the syllabus, Lecture Events Unit (Satuan Acara Perkuliahan/SAP), and the development of other learning devices. In addition, lecturers also provided about the concepts about the characteristics of learners. The knowledge about the characteristics of lecturer learners subsequently became one of the important considerations in developing a learning process. These characteristics are related to aspects of the social, intellectual, physical, emotional, moral, and social-cultural background.

The results of the study showed a significant difference between the lecturer who had sailed less than 5 years, about 5 years up to 10 years, and the sails above 10 years indicates that professors who have followed a long period of sailing (sailing time accumulated) surely already have at least a Engineering Expert Basic level Certificate up to Expert level I Certificate which is the highest certificate. It is equivalent to the process of education and training to obtain a certificate of Nautical Skills and Engineering. Expertise can be obtained through the process of sailing which run at least every two years will continue the hierarchical level of education started the basic level up to level 1.

From the description above, it can be said that the sailing experience of lecturer in PIP Makassar the lecture with seamanship competency is the competence of the pedagogic influence varied. It is because in the process of sailing, a lecturer gains educating and training.

The sailing period with the competence of professionalism

Following the results of data analysis in the form of table which shows the results of the analysis of its homogeneity of variance, anova analysis, and analysis of different groups about the competence of professionalism lecturer of PIP Makassar during the review of sailed for the sail less than 5 years, about 5 – 10 years and over 10 years, following successively.

Table 5. Analysis of Homogeneity of Variance between the Sailing Periods with Competence Professionalism Lecturer of PIP Makassar

Levene Statistic	df1	df2	Significance
1,79	2	48	0,18

The probability value of 0.18 greater than the significance value of 0.05 (5%), which means that null hypothesis (H₀) accepted and the alternative hypothesis (H_a) rejected so it was concluded that the third variant of the population are identical (homogeneous).

Table 6. Anova Analysis between the Sailing Periods with Competence Professionalism Lecturer of PIP Makassar

Variance Source	Sum of Squares	df	Mean Square	Sig.
Between group	10,65	2	5,33	,000
In group	7,59	48	0,16	
Total	18,24	50		

Table 5 results of the anova analysis showed that the magnitude of the probability value or significance of 0.00 smaller than 0.05 thus null hypothesis (H₀) is rejected, and H_a is accepted (alternative hypothesis). It indicates that there is a difference between the professional competence sailing periods less than 5 years, about 5 – 10 years and more than 10 years.

Table 7. Analysis of Homogeneous Subsets between the Sailing Period with Competencies Professionalism Lecturer of PIP Makassar

Sailing Period	N	Subset for alpha = 0,05		
		1	2	3
> 10 years	9	4,43		
5 – 10 years	28		4,02	
< 5 years	14			3,15

From homogeneous subsets analysis results in table 6 above can see that there in subset 1 only on the score at the Sailing Period Group over 10 years with an average score of 4.43. It means that the Sailing Period Group over 10 years in contrast to the other sailing groups. On subset 3 also only Sailing Period Group less than 5 years old with an average score of 3,15. On a subset 2 has score Sailing Period Group about 5 years up to 10 years with an average score of 4,02.

The above results suggest that the attainment of competencies professionalism lecturer of PIP Makassar is higher to Sailing Periods over 10 years compared with other sailing periods. In general, it can be said that the lecturer with the sailing periods longer more pointed attitude professionalism better. It is because the longer the sailing period then lecturer will master skills and expertise in doing tasks on the ship as well as support the profession of lecturer in the learning process on campus PIP Makassar. Through sailing, lecturers will be able to

enhance professional competence in teaching as it has had a scientific mindset in theory and practice. Thus, the ability of faculty in the delivery of material will be greater. The mastery and use of technology in the learning process will also increase.

It has been explained earlier that the sailing program for lecturers of PIP has been prepared through the regulation of the Government of the Republic of Indonesia No. 7 in 2000 about seamanship [8]. This Program is designed to enhance the competence of seamanship that includes everything to do with figure, education, certificates, and authority. Thus, the lecturer who follows sailing program will have the seamanship certificate, expertise certificate namely sailors' expertise certificate and sailors' skills certificate.

Seamanship education curriculum drawn up having regarded to: (1) the safety aspects of shipping, (2) the level of ability and skill competency standards for mariners, and (3) development of science and technology as well as management in the field of shipping. All these aspects are related to the learning implementation on-campus of PIP Makassar.

4. CONCLUSION

1. There is a difference in the pedagogic competence sailing periods less than 5 years, about 5 years up to 10 years, and over 10 years.
2. There is a difference of professional competence sailing periods less than 5 years, about 5 years up to 10 years, and over 10 years.
3. The longer sailing period, pedagogic competencies of PIP's lecturer is better.

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