Model Assessment of Learning Performance For Students Education Programs Specialists In Ear, Nose, Throat–Head and Surgery At Hospital Network

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MODEL ASSESSMENT OF LEARNING PERFORMANCE FOR STUDENTS EDUCATION PROGRAMS SPECIALISTS IN EAR, NOSE, THROAT – HEAD AND SURGERY AT HOSPITAL NETWORK

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Abstract: The need for a specialist ear nose throat - neck and head surgery is still under ideal conditions. The number of specialist doctors so far is around 1200, so the ratio of doctors to a population of 1: 2000, conditions are not yet ideal. The need for many doctors is not comparable to the period of study of medical students/ specialists. This is a concern. The learning process that was followed turned out to be unable to measure the learning performance produced. Based on that research needs to be done to uncover the assessment of student learning processes. The research aims to describe the right performance evaluation model to measure the learning process of students. The study used a Research and Development design, with the subject of research being students of the Medical Specialist Program I, ear nose, throat and head surgery. The results of the study showed that the learning performance evaluation model of the students' Specialist Education Program I had a sore nose - neck and head surgery was feasible and could be carried out. Expert test results were 82.5% for feasibility tests, and 85% for FGD results for feasibility tests. The performance appraisal model was designed through the identification of the potential of the student learning profile of the Specialist Medical Education Program I, ear, nose, throat, head and neck surgery in network hospitals. The formulation of a model of performance appraisal instruments is expected to be able to integrate the deficiencies found in learning and will ultimately be able to improve student learning performance. Recommendations to related parties to be able to understand and be able to conduct supervision, and direct the development of learning performance assessments to improve the quality of learning.
Keywords: Ear nose throat neck head surgery, assesment, performance, learning

I. INTRODUCTION

Health is the right of all people, however the current number of medical personnel to meet the needs of health services in Indonesia is not sufficient. [1].

This causes health services are still not optimal. Republika 2015 newspaper in the article "Distribution of Doctors is a Problem in Indonesia", explains the ideal ratio of doctors and population in a province is 1: 2500-5000. This figure has not been reached and is evenly distributed throughout Indonesia. The need for doctors and medical personnel is also lacking in the distribution of specialist Ear, Nose, Throat Head and Neck Surgery. Efforts to fulfill and improve the quality of Ear, Nose, and Throat Head and Neck health services must be accompanied by meeting the needs of specialist doctors. Ear, Nose, Throat and Head Surgeon education programs are not enough to meet the doctor's distribution needs. The small number of education center often causes problems with the number and quality of the Ear, Nose, Throat Neck Surgery Specialist Education Program. The educational period of the student's Medical Ear, Nose, Throat Surgery Head Neck Surgery Program according to the College of Health Sciences-Ear, Nose, Throat Neck Surgery is 8 (eight) semesters or for 4 (four) years. Despite the fact that the average study period is around 9-10 semesters. This raises problems with the acceleration of graduates of the Specialist Education Program.

The College of Health Sciences - Ear, Nose, Throat Head and Neck Surgery provides guidance on the implementation of learning activities, from prequalification, division phase, and self-development activities, among others: symposium, thesis writing, and other activities. Students will take part in independent practice experiences at network hospitals. During the activities at the network hospital, supervision is carried out on a regular basis for student evaluations, which are conducted by teaching staff or supervisors. The supervision model that is currently implemented is by using a blank list and is very subjective. Factors that influence the success of learning are the provision of a real clinical learning experience, good organization in clinical learning sessions, good supervision and student learning abilities. Students of Specialist Medical Education Programs must be responsible for independently completing their education [2]. Students must have self-regulation for the sake of learning, the importance of developing learning independence. Self regulation is a process by which students activate and maintain cognition, behavior, and influence which are systematically oriented towards achieving their goals [3].

Survey results show that 77% of students' self-regulation is directed towards completing their studies. 78.6% Students understand the curriculum of the Ear, Nose, Throat, and Head-Neck Surgeon Education Program. Nevertheless 64.3% who understand competencies and indicators in learning. The lack of understanding is caused by the lack of time given by students to dig deeper. This often creates gaps and results in the workload of students in completing studies. Network hospital is a partner hospital for specialist medical education programs, in addition to teaching hospitals. Dissemination of practical experience in sangt network hospitals is needed for the development of student competencies. Because the resources and infrastructure of a network hospital are different from that of a teaching hospital, it is necessary to develop how the resident's learning as students of the Ear, Nose, and Throat Head Surgery Education Program at the network hospital. Performance appraisals are conducted to uncover the success of the learning process. Performance appraisal will drive changes in performance for the better [4]. This means that performance appraisals can be developed to drive changes that are consistent with the objectives to be achieved. Assessment of learning performance will provide a reflection of the process and achievement of the results of learning to be followed up.

Assessment of learning performance is key in improving the quality of learning. Based on the foregoing, in an effort to accelerate graduation without leaving the quality of graduates, it is necessary to design a learning assessment model for students of Ear, Nose, Throat, and Neck Head Surgery Specialist Education Program students, especially in network hospitals. Considering the wide range of issues that might be examined in this study, the study limits the design of student learning performance assessment models for Ear, Nose, Throat, and Head-Neck Surgery Specialist Surgery Programs who are undergoing stases at network hospitals. The formulation of the problem in this study is how the learning performance appraisal model can improve the competence of students of the Ear, Nose, and Throat Head Specialist Medical Education Program in network hospitals. The purpose of this study is to describe how the learning performance assessment model can improve the competency of students of the Ear, Nose, and Throat Head Specialist Medical Education Program in network hospitals.

II. LITERATURE REVIEW

Learning Performance Assessment

Performance Assessment (Performance Assessment) is an evaluation section that illustrates the progress of the learning process shown through deeds. Learning performance assessment is an observation of students' activities carried out through performance, behavior, and interaction. Performance appraisal is designed so that the competencies to be achieved can be measured [5]. Individual profiles, individual traits, skills, competencies, etc. are the basic components of performance. the component is processed in such an objective manner through observing behavior [6].

Performance appraisal must be able to apply the knowledge gained to describe the ability of students through the process and performance. Performance and development in learning can be arranged in a system that facilitates the grouping of work actors (students). There are 3 criteria for achievement of learning performance, 1) above the average normal performance performer, 2) average fulfill various expectations from the performers of solid performance, and 3) low performance under various expectations [6]. Performance appraisal will cover all learning activities with due regard to cognitive, psychomotor, affective and all aspects of learning to be measured [7]. Learning characteristics will influence the shape and size of the assessment conducted. Nevertheless, in general the assessment of learning performance will pay attention to observations made by the teacher / lecturer on the activities of students, observing the activities of fellow students, and evaluating performance and products.

Ear, Nose, Throat & Neck Head Surgery Medical Education Program

The current implementation of specialist medical education programs in Indonesia carried out in teaching hospitals. Specialist Professional Medical Education Standards in Indonesia are devices for equalizing the quality of specialist medical education created and mutually agreed upon by specialist medical education stakeholders. Stakeholders include all interested parties in the education of specialist doctors, namely students (resident), Educational Institution for Specialist Hospital Education, College of Doctors and Specialists, Professional Association of Doctors and Specialists, Ministry of Health, Ministry of Education and Culture, Indonesian Medical Council and representatives Public. Professional doctor's professional education standards are also a tool to ensure the achievement of educational goals according to competence. Educational standards can also be used by Specialist Education Institutions to assess themselves and as a basis for planning quality improvement programs in the educational process sustainable [8].

Ear, Nose, Throat and Head-Neck Surgery is one of the fields of medicine that examines the sensing system, airway, head and neck area and the systems associated with it [9]. The competence of specialist doctors in the field of ear, nose, throat, head and neck surgery is an important component in the interests of the government to provide excellent service to the community. Ear, Nose, Throat and Head Neck Surgery Education is oriented to science technology in the field of health and research as well as special health care needs in the present and the future. Based on the standard of education of ear, nose, throat throat surgery, ear, nose, throat head surgery education including Basic Surgery, Ear, Nose, Paranasal Sinus, Maxillofacial, Oral Cavity, Tonsil, Pharynx, Larynx, Tractus Endoscope Tracheobronchial Esophagus, Neck, Head-Neck Surgery, Salivary Glands, Immunological Allergy, Medical Rehabilitation of Ear, Nose, Throat, Head-Throat Surgery, and Promotive and Preventive Ear, Nose, Throat and Head-Neck Surgery.

Network / Satellite Hospital

Hospitals are part of the health service network to achieve health performance indicators set by the region, therefore hospitals must have a coordinative, cooperative and functional relationship with the health department and other health facilities. In the network of health services, hospitals are the main node that functions as a referral center. Hospitals are organizations that are labor intensive, capital intensive, technology intensive, and skill intensive [10]. According to WHO, hospitals are institutions that are an integral part of health organizations and social organizations that function to provide comprehensive health services, both curative and preventive for outpatients and inpatients through medical services and care activities. According to the Ministry of Health, the hospital is a means of health efforts to organize health service activities and can be used for health education and research. The law on hospitals stipulates that the Government and associations of hospitals form networks in order to improve health services [11]. The network includes information, facilities, infrastructure, services, referrals, supply of equipment, and personnel education. The formation of networks is very important to establish synergy between regulators and service providers and between fellow health service providers whose estuary is to provide the best service to the community.

III. RESEARCH METHOD

This research is Research and Development (R & D). R & D is a research method used to produce certain products, and test the effectiveness of these products [12]. The subject of the study was the student resident of the Ear, Nose, Throat, Neck and Ear Head Surgery Specialist Education Program who were practicing at a network hospital. The object of research is the assessment of learning performance. Data collection techniques used in this study were interview, observation, documentation, questionnaire / questionnaire, and FGD. Research carried out through preliminary stages (research) and development (development). Checking the validity of the data using the Triangulation method. Data analysis techniques using percentage techniques to see the feasibility of the model by experts and the feasibility of the model by practitioners. Effectiveness was analyzed by comparing results before and after treatment. The Research and Development (Reseach and Development) steps that are used, can be seen more clearly in Figure 1 below.

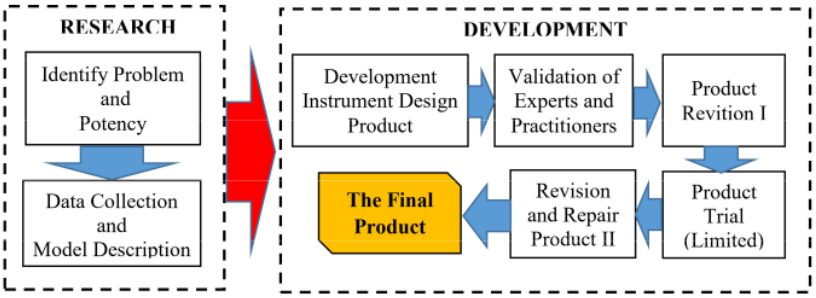

Figure 1. Research Flow Diagram

IV. RESULT AND DISCUSSION

The implementation of the Specialist Education Program for Ear, Nose, Throat, Head and Neck Surgeons is regulated in academic regulations with a series of attributes attached. One of the attributes that accompany it is the education curriculum. The curriculum becomes a foothold in organizing activities, teaching and learning activities, and learning assessment. From the results of the analysis in part I of the study showed that there needs to be a measure of the assessment of the learning process of students of the Medical Specialist I Ear Nose, Throat, Head and Neck Surgery.

Student learning of the Ear, Nose, Throat, and Throat Head Surgery Specialist Medical Education Program is planned through a curriculum of study programs, academic regulations, and stase procedures. Despite this socialization and understanding of the curriculum is still not optimal. It appears that the percentage of perceptions explored in the formulation of the learning profile still has an average of 71.44 <75. So the students' perceptions are within the criteria of Enough when describing the understanding of the learning performance profile related to the perception of understanding the curriculum. The results of observations of student learning performance show that time availability is key, given the density of competencies and indicators that must be achieved. The time availability indicator is an indicator that contributes the lowest perception percentage of 50%. This supports the display of competency understanding and indicators of each learning in the study program, even though it already exists and appears in the lesson plan given to students. Understanding of competencies and indicators of learning occupies the second lowest percentage criteria after time availability, 64.3%. Description of the learning process of students of the Ear, Nose, and Throat Head Surgery Medical Specialist Education Program can be seen in Table 1. The perception of the learning process of students appears from an understanding of the implementation of the process, and the process set. Because the lesson plan has been given and understood by students, then to uncover the perception of the process revealed about the source and learning media as well as the level of complexity of its use.

Table 1. Perception of the Learning Process

No	Indicator	Percentage (%)
1	Implementation of planned learning	55,7
2	Conformity between learning resources with learning objectives	78,6
3	The level of complexity of using sources and media	64,3
4	Continuous learning resources	71,4
5	There is relevance of source / media with student characteristics	71,5
6	There is a compatibility between media selection and learning objectives	71,5
	Average	68,8

The perception of the learning process still has an average of 68.8 <75. So the students' perceptions are within the criteria of Enough when describing an understanding of the learning process. Sufficient perception about the learning process can be caused by many factors, including a low understanding of individual performance in learning and a low understanding of learning assessment. Perceptions of individual self-understanding of learning can be seen in Table 2.

Table 2. Perceptions of Understanding Student Self Characteristics

No	Indicator	Percentage (%)
1	Interest during learning in the Ear, Nose, Throat and Head Surgery Neck Specialist Education Program	100
2	Attention during learning	91,9
3	Capital follows the Ear, Nose, Throat and Head Surgery Neck Specialist Education Program	93,9
4	How to study while following the Ear, Nose, Throat and Head Surgery Neck Specialist Education Program	65,7
5	Characteristics of communication inside and outside of learning	71,3
6	learning difficulties during the process	35,1
7	Student learning needs	71,4
8	Student learning readiness	64,2
9	Content mastery	85,7
10	Content processing	85,7
11	Quality of learning	92,8
12	Communication and interaction skills	71,4
	Average	77,4

Perceptions of understanding students' self characteristics have an average of 77.4> 75. So the students' perceptions are within the criteria of Good when describing students' self-understanding. The interesting thing in this descriptive presentation is the percentage of perception of 100% although there is also a percentage of 35.1%. High interest in learning but has difficulty learning about the process. Individual learning difficulties will appear in the display of learning performance and learning outcomes. So it is necessary to develop an appropriate assessment design and assessment instrument. A description of the learning assessment during the process and at the end of the process is illustrated in Table 3 below

Table 3. Perception of Assessment and Learning Assistance

No	Indicator	Percentage (%)
1	Ability to guide lecturers or accompanying doctors	92,8
2	The availability of grids and instruments in the assessment activities	85,7
3	The instrument is always validated	87,5
4	Understanding of the way of assessing lecturers / accompanying doctors	78,6
	Average	86,1

Perception of understanding of assessment and mentoring of learning has an average of 86.1> 75. So the students' perception is in the criteria of Very Good when describing the understanding of assessment and mentoring of learning. Special note given by students here is that the lecturer or assistant is competent, communicative, but very busy (70%).

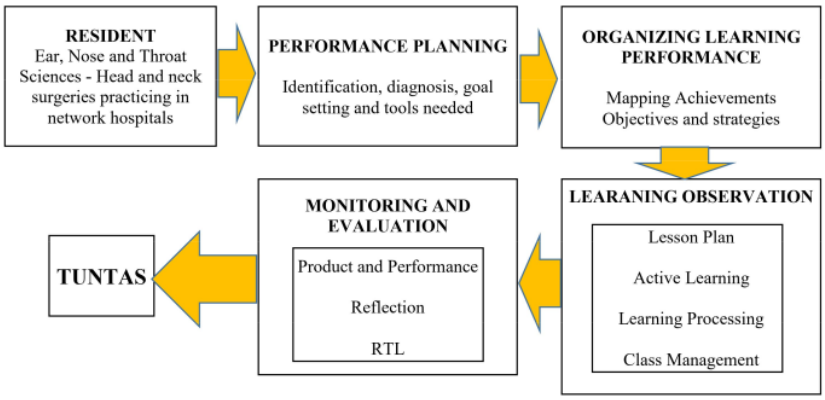

Figure 2. Design of The Learning Performance Assessment Model

Lecturers have multi-directional and flexible skills (71.4%) although there are several sections that present only one-way communication. The design of the learning performance assessment model can be seen in Figure 2. The design of the model shows that the assessment of processes is often not a priority of observation, but must be reflected in the visible outcomes. The result of expert validation on the model design states that the model still needs to be developed in relation to the feasibility of the model. Because the implementation of the model has not been measured properly. Expert validation showed a score of 85% and 80% or a mean of 82.5%. Expert notes are more directed towards the implementation of the model and the management of the model as shown in Table 4.

Table 4. Summary of Expert Validation Results

No	Expert Code	Percentage (%)	Suggestion
1	I	85	There is no visible involvement of other parties in the models offered
2	II	80	The need for indicators of model achievement. Prototype monitoring and evaluation is not yet clear
Average		82,5	

In accordance with the validator's recommendations, a Focus Group Discussion (FGD) was carried out with guidance on implementing the model. A summary of FGD results can be seen in Table 5.

Table 5. Summary of FGD Results

No	FGD Participant Code	Percentage (%)	
		Accuracy	Implementation
1	A	80	
2	B	85	
3	C	90	
4	D		80
5	E		80
6	F		85
7	G		80
8	H		90
9	I		85
10	J		90
11	K		85
12	L		90
13	M		90
Average		85	85,5

Valiadator and practitioner recommendations and records show that the model can be implemented with additional duration of implementation time. This model can be developed by giving a special characteristic ear, nose, throat, head and neck surgery. The development of models made can be implemented for various learning conditions not only in network hospitals. A limited trial given to 10 students in a network hospital shows that the development of the model can improve the performance of students Specialist Education Program I Ear, Nose, Throat, Head and Neck Surgery in a network hospital, as shown in Table 6.

Table 6. Summary of Limited Test

Subject	Percentage (%)	
	Before	After
D	70	100
E	70	85
F	70	95
G	20	60
H	70	100
I	75	100
J	75	95
K	75	80
L	80	95
M	80	85
Average	68,5	89,5

The effectiveness of the model is observed from the differences before and after the implementation of the model. The research hypothesis in proving the effectiveness of the model is that there is an increase in the percentage after the model is implemented. The effectiveness of the model can be seen by comparing Figure 3, although with limitations.

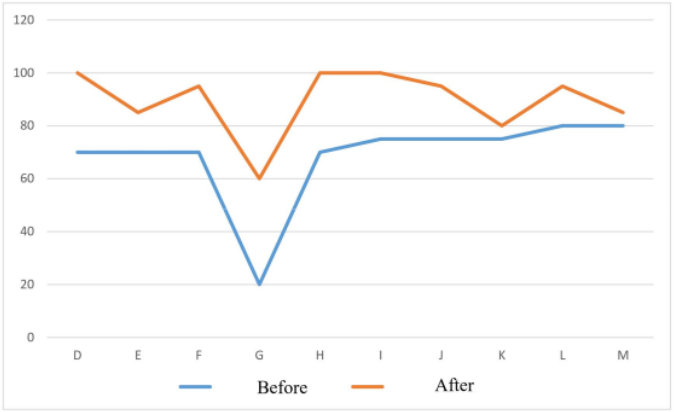

Figure 3. Effectiveness of the model

Performance analysis describes a job description that students must achieve in accordance with their vision and mission. Separation of tasks into individual work portions, will provide limits on ways or ways to implement the vision and mission through lecturers / assistants as available educational resources. Performance appraisal is intended to realize the achievement of student competencies, so it must be measured accurately and correctly to show the quality of learning.

V. CONCLUTION

The performance appraisal model was designed through identification of the potential learning profile of students of the Ear, Nose, Throat, Throat, Head and Neck Surgery Specialist Medical Education Program at a network hospital. The formulation of a learning performance appraisal model is expected to be able to integrate the deficiencies found in learning and will ultimately be able to improve student learning performance. Design the model by involving the management stages and linking them with reflection and follow-up. The validation results show that the model is feasible to be implemented with a feasibility percentage of 82.5% and 85% in the FGD.

VI. SUGGESTION

The results of this study are recommended to the relevant parties, especially the educational provider of the Specialist Educational Doctor Program Ear, Nose, Throat Head and Neck Surgery in hospital networks in particular and teaching hospitals in general. Recommendations given relating to 1) management of learning performance need to be developed based on the characteristics and potential of students; 2) Implementation on a large scale requires increased performance and performance development activities. Mapping of learning performance appraisal is developed with a variety of variations; danm 3) The supervisor doctor, the head of the study program, and related parties should be able to understand and be able to supervise, and direct the development of models to improve the quality of learning.

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PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9