

# Evaluation of Diploma Three (D-III) Program Medical Laboratory Technology in Poltekkes Kemenkes Jakarta III

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## ABSTRACT

This research is an evaluative study program to accelerate the increase of Academic Qualifications in the Diploma of Health Workers, Medical Laboratory Technologies. The Evaluation of this program is very important, has a positive impact, and can be used as a reference to improve the quality Program For Accelerating The Improvement of Academic Qualification of Three Diplomas, Medical Laboratory Technology as Indonesian Health Personnel through Recognition of Prior Learning (RPL). Health Polytechnic of the Ministry of Health Jakarta III is an education provider for medical laboratory personnel in DKI Jakarta Province. The model of evaluation used in this study was CIPP Stufflebeam's model, The data type of this research consist of qualitative and quantitative data. In general, it is concluded that the implementation of RPL program has been going well, although there are some aspect needs to be repaired and increased, both in quantity and quality aspect.

**Keywords:** *program evaluation, RPL*

## 1. INTRODUCTION

The process of organizing education is an effort to provide the skills and knowledge and character needed to educate the life of the nation as stated in Law Article 3 Number 20 of 2003, that: "National Education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the life of the nation, aims and develops the potential of its students to become human beings who believe in and devote to God Almighty, have good character, be healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens [1].

An education system that can produce Indonesian human resources is in line with the mandate of opening the 1945 Constitution of the Republic of Indonesia Law No. 20 of 2003 uses an education system oriented to improving the quality of education. Education development policies in Indonesia that refer to this law use four basic strategies, namely equal opportunity to get an education, improving the quality of education, and efficiency of education. Improving the quality of education is expected to have an impact on increasing the efficiency, effectiveness and productivity of education.

The improvement and improvement of the quality of education must be carried out continuously and continuously and requires a fairly long process. This statement is consistent with Mitchell's opinion, *however,*

*these improvements in efficiency, responsiveness, and quality are not immediately realized [2].*

Republic of Indonesia's Presidential Regulation Number 8 of 2012 concerning the Indonesian National Qualification Framework and Minister of Research and Higher Education Regulation Number 26 of 2016 concerning Recognition of Prior Learning has given wider access to people who wish to continue their education to higher education through Recognition of Prior Learning (RPL). RPL is a process of recognition of a person's Learning Achievement (LA) obtained through formal or non formal/informal education, and or work experience into formal education [3] Recognition of this learning achievement is intended to place a person at the level certain quality in accordance with the Indonesian National Qualification Framework (KKNI) [4]. This achievement cannot be separated from the availability of adequate resources to carry out various health development programs, including health human resources consisting of health workers. Health workers are the main element that supports other health subsystems [5].

Law Number 36 of 2014 concerning Health Workers article 9 states that Health Workers must have a minimum qualification of Diploma Three, except medical personnel [6]. This provides a transition period of 6 years for health workers for adjustments to Diploma Three (D-III) and its consequences, if within 6 years of promulgation do not yet have a minimum D-III qualification, the health worker will have the following impacts: 1) Become an assistant of

health workers; 2) Do not have the authority to carry out practices as a health worker; 3) Must work under the supervision of a health worker and for the health facilities where he works: 1) Health facilities (health service facilities) no longer conform to accreditation standards; 2) There arises potential legal problems for health facilities that employ health worker assistants 3) Required arrangements for supervision of health worker assistants. Meanwhile, it must be recognized that in the field there are currently many health workers working in service units, in remote, underdeveloped and border and island areas (UBIA), who have secondary education (SEL) and

Diploma I education levels (D1EL). National Civil Service Bureau (BKN) data (2015), about 74,601 government employee consisted of health workers: 1) Midwives (DI) 19,608; 2) Nurse (SPK) 38,944; 3) Pharmacy (SMF) 5,282; 4) Nutrition (SPAG) 434; 5) Sanitary (SPPH) 2,461; 6) Dental Nurse (SPRG) 3,971; 7) Pikes (High School + MR Training) 339; 8) Laboratory Staff, TLM (SMAK), and 9) Others 627 who work in hospitals, health centers, and other health facilities in 34 provinces educated under D-III.

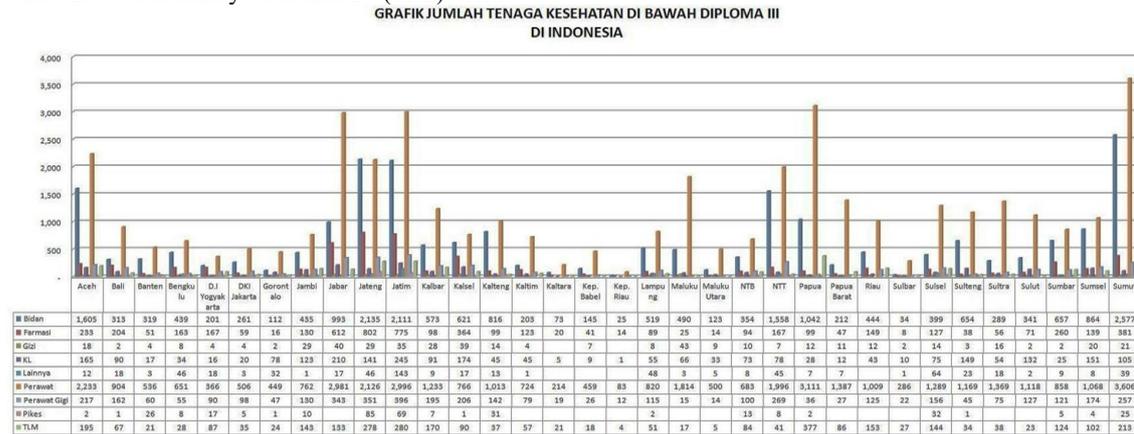


Figure 1. Graph Number of Health Workers Under Diploma Three in Indonesia

1.1. Related Work

According to model evaluation, we divided it into seven models..

1.1.1. Theoretical Study

The term evaluation comes from English, namely *evaluation*. In the book *Essentials of Educational Evaluation* by Wand and Brown it is said that evaluation is an action or process to determine value in something. In accordance with this opinion, the evaluation of education can be interpreted as an action or process in the world of education or everything that has to do with the world of education. Early in the development of evaluation science, Schriren defined evaluation in the book *Program Evaluation: Alternative Approaches and Practical Guidelines*, by Fitzpatrick, Sanders, and Worthen as "evaluation as judging the worth or merit of something". Understanding evaluation in the sense of Schriren explains that evaluation is an evaluation activity or giving a decision on the appropriateness or benefit of something. Harris's opinion quoted by Sudjana explained that *evaluation is the systematic process of judging the worth desirability, effectiveness, or adequacy of something according to definitive criteria and purposes. The judgment is based on careful comparison of observation data with criteria standards* [7]. This definition explains that evaluation is the process of establishing systematically

about the goals, objectives, effectiveness or suitability of something in accordance with predetermined criteria and objectives based on careful comparison of data observed using certain standards.

Stufflebeam and Shinkfield say *evaluation is the assessment of an object's merit, worth, probity, feasibility, safety, significance, and / or equity* [8]. This understanding shows that evaluation is a systematic assessment of an object regarding benefits, values, honesty, worthiness, safety, meaning, and or justice.

In other works, namely the book *Evaluation Models: Viewpoints on Educational and Human Services Evaluation*, Madaus, Kellaghan, Kellaghan and Stufflebeam define evaluation as "a study designed and conducted to assist some audiences to assess an object's merit and worth" [9]. The meaning of evaluation is a study designed and implemented to help the audience to assess the benefits and feasibility of an object. While Fitzpatrick et al. Defines evaluation as identifying, clarifying, and applying standard criteria to assess whether the objects being evaluated have met the eligibility awareness regarding these criteria [10].

Another opinion was put forward by Owen that evaluation was a systematic process for determining the feasibility of a program, he writes: *evaluation as the judgment of worth of a program* [11]. Owen also revealed a second definition that calls: *evaluation as a production of knowledge based on systematic inquiry to assist decision-making about a program*. The term evaluation refers to meaning or to contain meaning: an action or a process to gather a certain

amount of knowledge or information systematically to help make decisions about the sustainability of a program [11].

Some understanding of evaluation above confirms that the definition of evaluation in general is the process of gathering information to assess an object, especially about its feasibility and benefits, based on the criteria determined to make decisions about the object.

### 1.1.2. Evaluation Model Used

Evaluation must compare what has been achieved by the program with what should have been achieved according to or established criteria. This indicates that evaluation as a tool, controls a program to measure how the achievement of program objectives including their implications. The

common thing in program evaluation is how to improve a program and not to prove the program. The flow of evaluation studies can resemble a scientific study.

In conducting evaluations, there are various evaluation research models proposed by evaluation research experts. Experts develop evaluation models that are used as guidelines for evaluating a program systematically, and each model has a different approach. Factors that influence the difference in the evaluation approach model include differences in philosophy and ideology, as well as the research methodology used. Although there are differences in approaches, there is no one model that is the best among the existing models. Each model has advantages and disadvantages of each.

**Table 1.** Comparison of Evaluation Models

| No. | Model Evaluation   | Expert                      | Point Press   | Advantages   | Disadvantages  |
|-----|--|-----------------------------|---|--|--|
| 1.  | Evaluation Model Oriented Objective( <i>Goal Oriented Evaluation Model</i> ) | Tyler                       | How far the objectives of the program has been implemented in the process of program implementation               | 1. Democratic<br>2. Simple   | 1. Interest elusive<br>2. Goals are not in accordance with the demands<br>3. Side effects were not identified  |
| 2.  | Evaluation Model Non Interest( <i>Goal Free Evaluation Model</i> )           | Michael Scriven             | Starting from the appearance and side effects that arise from the implementation of the program                   | 1. Evaluator can do an evaluation without knowing the objectives.<br>2. Considering the side effects of a product  | Evaluator can conduct a broad evaluation without knowing the previous goals  |
| 3.  | Formative-Sumative Evaluation Model  | Michael's Scriven           | There are stages and scope of the object being evaluated  | 1. Identifying the obstacles and scope of the object being evaluated<br>2. Able to measure the achievement of the program when it is over                              | Not seeing a program as an integrated system   |
| 4.  | Evaluation Model i Countenance ( <i>Countenance Evaluation Model</i> )       | Stake                       | 1. There is a description ( <i>description</i> )<br>2. There is a consideration ( <i>judgment</i> )               | There are stages of systematic evaluation activities (antecedents, transactions, and outputs)  | Evaluators must conduct 2 comparative activities, namely: comparing the conditions of the evaluation results and comparing the conditions of the results of the implementation program       |
| 5.  | Evaluation Model CSE-UCLA  | Alkin                       | There are 4 stages ( <i>needs assessment, program planning, formative, evaluation, and summative evaluation</i> ) | There are stages of systematic evaluation activities that begin with conducting a needs analysis (there is a comprehensive evaluation format at each evaluation stage) |  |
| 6.  | Evaluation Model Discrepancy   | Provus                      | The existence of gaps in program implementation   | Evaluators can immediately identify disparities ( <i>discrepancy</i> ) by studying 3 aspects of the program, namely: processes, inputs, and outputs                    | Do not view a program as an integrated system of   |
| 7.  | Evaluation Models CIPP and CIPPO   | Stufflebeam and Gilbert Sax | Look at a program as an integrated system   | More comprehensive, that is not only on results alone, but includes context, input, process, product, and even <i>outcome</i>  | 1. Impresses <i>top-down</i> with the nature of management in its approach<br>2. Formal goals may be less important than secondary goals or latent goals (hidden when the situation changes) |

Furthermore Sukardi, classifies six evaluation models, namely: 1) *Goal Oriented Model* or Tyler Model, 2) Decision-Oriented Evaluation Model, 3) Transactional Assessment Model, 4) *Goal Free Evaluation Model*, 5) *Advisory Evaluation Model*, and 6) Evaluation Model Sumative and Formative (Purwanto; Suparman, 1999). While Kauffman and Thomas quoted by Arikunto mentioned that in general there are eight evaluation models, namely: 1) *Goal Oriented Evaluation Model* developed by Ralph Tyler, 2) *Goal Free Evaluation Model* developed by Michael Scriven, 3) *Formative-Sumative Evaluation Model* developed by Michael Scriven, 4) *Countenance Evaluation Model* developed by Stake, 5) *Responsive Evaluation Model*, 6) *CSE-UCLA Evaluation Model*, 7) *CIPP Evaluation Model* developed by DL Stufflebeam, and 8) *Discrepancy The model* developed by Provus [12].

Evaluation model used in this study is the evaluation model CIPP, because the evaluation model is more comprehensive and object of evaluation is not just the product alone, but also include context, input(*input*), process maupu results [13]. The evaluation process aims memberikann a detailed and broad picture of a project, starting from the context to the time of the implementation process.

The consistency between CIPP and the evaluation model framework is *Countenance Stake* quite large, but there are also some important differences. Both approaches call for an assessment of results, but Stake stresses the need to look for side effects as well as intended effects. This is a recommendation, which is then included in the CIPP as a product evaluation stage. One difference is how the two stages in CIPP are handled by so-called "entry points" (antecedents) problems. Evaluation inputs(*input*) and the evaluation context can be assumed to be included in identifying and assessing the condition (antecedent).

Compared to Stake and Scriven, CIPP is more in line with the view of the education system and human services. This can be seen in not so much concentrated in guiding the conduct of individual studies but rather in providing ongoing evaluation services to decision makers in an institution, mainly based on the view that the most important purpose of evaluation is not to prove, but to improve. This orientation is more towards helping to maintain and improve the quality of institutional operations. In general, evaluations will help to improve systems and promote better, more efficient services and target efforts to improve communication about the strengths and weaknesses of the institution with its audience.

The CIPP model uses a social system approach to evaluation [14]. A social system which interrelates to regulate activities that function together to fulfill the mission and achieve the goals set in a particular context. According to this view, evaluation appropriately promotes and helps with the achievement of objectives and improvement of sustainable programs. The CIPP evaluation model has the potential to move in formative and summative evaluation areas or assist in making improvements during the program and providing final information when the program ends. In this study the format of evaluation used is a formative evaluation, due to the fact that has happened in the past with the evaluation of documents and interview(*interview*) or questionnaires

students [14]. From some power models CIPP above, program evaluation this is very appropriate to be implemented because it not only examines the results or products, but also in terms of planning, implementation and process.

In addition to having advantages, the CIPP evaluation model also has weaknesses, such as the application of this model in the field of learning programs in the classroom which has a less high level of implementation if there is no modification [13]. Widespread will involve many parties who need more time and costs [13]. Therefore in this research it will take quite a long time and cannot be done in a hurry so the information collected will be detailed and accurate.

## **1.2. Our Contribution**

This paper presents some improvements based on the acceleration of academic qualification program D-III Medical Laboratory Technology in health service units is an education delivery program that specifically intended for health workers who work in health laboratory health service units that have secondary education (JPM). They have not had the opportunity to continue formal education according to their profession due to various obstacles even though they have had long working experience, have competence gained through training, courses, and other non-formal education.

## **1.3. Paper Structure**

The rest of the paper is organized as follows. Section 2 introduces the methods used in this paper, *Program Concepts Evaluated*. Section 3 presents 4 types of instruments. Then, section 4 concludes the paper and presents direction for future evaluate.

# **II. BACKGROUND**

## **2.1. METHODS**

Approach used in this study is a mixed method research approach with evaluative research methods. The research design used in this research program evaluation is CIPP. The research design model used is the CIPP Stufflebeam model to evaluate the Acceleration Program for Improvement of TLM D-III Academic Qualifications through RPL at the Polytechnic of the Ministry of Health Jakarta III. Comprehensively, both in the context, input, process and product components. The CIPP model was also chosen because it included a summative evaluation, because it was carried out after a program was completed (*ex-post*).

### *Program Concepts Evaluated*

The acceleration of academic qualification program D-III Medical Laboratory Technology in health service units is an education delivery program that specifically intended for health workers who work in health laboratory health

service units that have secondary education (JPM). They have not had the opportunity to continue formal education according to their profession due to various obstacles even though they have had long working experience, have competence gained through training, courses, and other non-formal education.

Recognition of Prior Learning (RPL) is an acknowledgment of Learning Achievement (LA) obtained by a person from formal or non formal or informal education, and / or work experience at a tertiary level, starting from level 3 KKNI or (D-I Program) up to the qualification level level 9 KKNI (Doctoral Program).

Based on Permenristekdikti Number 26 of 2016, Recognition of Prior Learning, here in after abbreviated as RPL, is an acknowledgment of one's Learning Achievement obtained from formal or non-formal or informal education, and / or work experience into formal education. The RPL as referred to will be applied to the Acceleration Program for Improvement of Health Worker Education Qualifications as set out in Permenkes Number 41 Year 2016. The program is specific in nature that can be implemented using a variety of face-to-face learning methods and other methods such as learning using modules, e-learning and other methods that are suitable with the situation and conditions of students in the affirmation program. The learning implementation methods are carried out to provide opportunities for program health workers throughout Indonesia to improve their educational qualifications to become Diploma Three.

The implementation of this program is based on the mandate of Law No. 36 of 2014 concerning Health Workers article 9 which states that Health Workers must have a minimum qualification of Diploma Three.

Therefore, Poltekkes Kemenkes Jakarta III, under the control of the PPSDMKes Agency and referring to the general guidelines for the implementation of the D-III Program for Medical Laboratory Technology through RPL established by the Director General of Learning and Student Affairs of the Ministry of Research and Technology of the Ministry of Research and Technology starting the academic year 2017/2018 academic D-III Medical Laboratory for Medical Laboratory Technology (ATLM) personnel in the health service unit using the RPL approach.

Organizing an acceleration program for increasing D-III academic qualifications in Medical Laboratory Technology for Medical Laboratory Technology (ATLM) personnel through Recognition of Prior Learning aims to:

- a) Produce diploma-quality academic graduates three for health workers, Medical Laboratory Technology personnel (TLM) in the health service unit.
- b) Providing D-III qualification services for Medical Laboratory Technology in health care units that have graduated from Health Analyst High School (SMAK) according to the legislation.

The graduates' competency program in accelerating the improvement of academic qualifications of D-III Medical Laboratory Technology for Medical Laboratory Technology personnel in the health service unit by using the approach *RPL* actually directs graduates to have

competencies as health workers, personality competencies, professional competencies, and social competencies.

### *Instrumentation*

In collecting data using 4 types of instruments, namely documents, interview guidelines, observation guidelines, and questionnaires which are divided into 4 stages of evaluation, namely: context (*context*), input (*input*), process (*process*), and results (*product*).

#### *a Instruments Context(Context)*

This instrument aims to analyze the environmental programs related to the existence of the program and requirements analysis. Context instruments consist of: 1) document studies, namely document tracing in the form of formal legality of the D-III Recognition of Prior Learning Program (RPL) Medical Technology Technology Polytechnic of the Ministry of Health Jakarta III, 2) interviews are used to ask how the implementation of the D-III Recognition of Prior Learning Program (RPL) Technology of the Poltekkes Medical Laboratory of the Ministry of Health Jakarta III, 3) The questionnaire was used to seeresponses *stakeholder/community* to the existence of the D-III Program of the Poltekkes Medical Technology Laboratory of the Ministry of Health Jakarta III.

#### *b Instrument Input(Input)*

Input instrument consists of document analysis, interview, observation and questionnaires. 1) Analysis of documents is carried out in connection with the requirements for student recruitment, lecturer / teaching staff qualifications, curriculum, facilities, level of attendance of the teaching staff, and administration of the RPL secretariat D III Study Program of Medical Technology Technology Polytechnic, Ministry of Health Jakarta III; 2) Interview guidelines contain about the process of student recruitment, curriculum development, management application, partnerships with other institutions, and community support for RPL, and 3) Questionnaire is used to assess the performance and involvement of *stakeholders* in developing the RPL Program.

#### *c Process Instrument (Process)*

This instrument aims to assess the implementation of learning conducted by lecturers and students. The process instrument consists of documentation analysis, observation guidelines, questionnaires, and interviews. 1) document analysis is carried out on lecture planning tools, for example Syllabus, student learning outcomes for each lecture and practicum / competency test results, and supervision reports; 2) the questionnaire is used to find out students' opinions on the quality of learning from lecturers and lecturers' activities in learning; 3) interviews were conducted to obtain data on the supervision of RPL lectures.

#### *d Instruments Product*

instruments Results (*Product*) consists of document analysis and interview guidelines. 1) Analysis of

documents is carried out related to student learning outcomes in the form of graduation of each course and the results of competency or practicum exams; 2) The interview guide contains questions about the achievements and learning outcomes of RPL students.

### III. CONCLUSION

- The evaluation model used in this study is the CIPP evaluation model.
- In collecting data using 4 types of instruments, namely documents, interview guides, observation guidelines, and questionnaires / questionnaires which are divided into 4 stages of evaluation, namely: context (*context*), input (*input*), process (*process*), and results (*product*).
- This context instrument aims to analyze the program environment associated with the existence of the program and analysis of needs.
- The input instrument consisted of document analysis, interview guidelines, observation guidelines and a questionnaire.
- This process instrument aims to assess the implementation of learning conducted by lecturers and students.
- instrument *Product* consists of document analysis and interview guidelines. 1) Analysis of documents is carried out related to student learning outcomes in the form of graduation of each course and the results of competency or practicum exams; 2) The interview guide contains questions about the achievements and learning outcomes of RPL students.

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