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Internal Quality Assurance Implementation Evaluation at Engineering Faculty Universitas Negeri Jakarta

Mufti Ma'sum

Universitas Negeri Jakarta, Jakarta, Indonesia

Abstract

This research aims to evaluate the implementation of learning process quality assurance in the Faculty of Engineering program studies. Countenance Stake was performed which stresses on two primary evaluations: (1) description and (2) judgment, as well as looking at three different stages of (1) antecedents, (2) transaction, and (3) outcomes. Data were collected by using several instruments, e.g. document study, closed questionnaires, observations and interview guidance. Primary and secondary data were analyzed quantitatively and qualitatively. Primary data that were gathered from interviews were analyzed qualitatively. Quantitative data analysis consisted of three stages: data reduction, data display and conclusion. The questionnaire instrument was developed from the Faculty of Engineering Universitas Negeri Jakarta quality assurance manual and Internal quality assurance system Universitas Negeri Jakarta standard documents. The questionnaire instrument used to collect transaction data was developed from the Internal Quality assurance system Universitas Negeri Jakarta standard documents. The questionnaire used to collect learning outcomes was developed from regulation no. 14 on teachers and lecturers. These instruments have been validated by two experts. Research results show that: (1) The lesson planning (antecedence) of undergraduate informatics study program and culinary art study program (Tata Boga) were evaluated as good; (2) The learning process (transaction) of undergraduate informatics study program and culinary art study program (Tata Boga) was evaluated good and very good, respectively; (3) The outcome of undergraduate informatics study program and Tata Boga study program was categorized good and very good, respectively. Therefore it can be concluded that, in general, the Internal Quality Assurance in FT UNJ performed well.

Keywords: Program evaluation, internal quality assurance, learning process standard

Corresponding Author:
Mufti Ma'sum
msmufti76@gmail.com

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1. Introduction

At present the demands of society on higher education are not only limited to the ability to produce quality graduates who are measured academically, but also proof of good accountability. In general, the demands that society wants on universities include quality assurance, quality control, and quality improvement. In line with the

community's demands, the government enacted law number 12 of 2012 concerning Higher Education article 7 paragraph (3) letter c, namely the duties and authority of the Minister for the implementation of higher education, including increasing quality assurance, relevance, affordability, and access to higher education in a sustainable manner. From this description it can be concluded that quality assurance in tertiary institutions is a necessity so that the vision and mission of tertiary institutions can be realized, controlled, and improved so that people feel satisfied.

According to the concept of quality the customer is king. By satisfying customers, we can be sure that they will come back again and tell their friends about the products and services. This is called sell-on quality. For this reason, tertiary institutions must carry out quality assurance, namely the determination and fulfillment of education standards needed in the implementation of higher education consistently and continuously, so that stakeholders get satisfaction.

Internal quality assurance at FT UNJ has never been evaluated as a whole as a system that includes 1. Planning before the internal quality assurance begins including available resources, facilities and infrastructure, human resources, curriculum, and applicable regulations; 2. implementation of internal quality assurance, whether it is in accordance with the plan; 3. The results achieved during carrying out internal quality assurance, whether as expected. Therefore the researcher will conduct research on the internal quality assurance of FT UNJ which includes: 1) what are the quality standards of the learning process set by GPJM FT and LPJM UNJ; 2) what learning plans should be made; 3) whether the learning plan made can be carried out; 4) whether the average cumulative achievement index (GPA) of students increases; 5) whether the number of students with academic and non-academic achievements has increased; 6) whether the number of students graduating on time increases.

The object of the research was narrowed down to only 2 study programs from 16 study programs in FT-UNJ. The two study programs are the Bachelor of Food Education, and the PTIK S1 Study Program. The reason is that the Bachelor of Food Education study program is the only study program whose accreditation is A since 2011 and the S1 PTIK study program is the most recent study program which has the most interest.

Several studies and reviews of the Quality Assurance System and Total Quality Management in tertiary institutions have been carried out by [1], [2], [3], [4], [5], [6] use different methods. Likewise, the method is different from the research that researchers are doing.

2. Discussion

2.1. Program/ policy evaluation

The purpose of evaluative research is to determine the implementation of the policy, not only at the conclusion that has been done well or not, but what is the cause if it has not been implemented well and where the weaknesses lie. In other words evaluative research intends to look for weak points of implementation which may also lie in the policy weaknesses. With evaluative research, an institution can improve the quality of its performance. In other words evaluative research has benefits as quality development [7].

The aim of program evaluation is to focus on program components so that their observations can be more accurate and the data collected more complete.

Program evaluation needs to have criteria or standards as benchmarks for assessment namely the lower limit or minimum limit that must be achieved [8].

2.2. Internal quality assurance system (SPMI)

In the future the existence of a university depends on the assessment of stakeholders (students, student guardians, lecturers, the world of work) about the quality of a college. For existence to be guaranteed, a tertiary institution must implement SPMI [9].

Internal Quality Assurance System is a systematic activity of higher education quality assurance in tertiary institutions by universities (internally driven), to oversee the implementation of tertiary education by tertiary institutions continuously (continuous improvement).

The purpose of SPMI is to maintain and improve the quality of tertiary education in an ongoing manner, which is carried out internally to realize the vision and mission of tertiary institutions, as well as to meet the needs of stakeholders through the organization of higher education.

2.3. Quality Assurance Group of the Faculty of Engineering UNJ (GPJM FT)

GPJM FT is a technical team in FT UNJ in implementing education quality improvement in terms of academic, administrative, financial, student affairs, and cooperation quality. The tasks of GPJM FT UNJ are 1) compiling quality standards, 2) conducting internal

audits, 3) assisting faculty leaders in coordinating with each work unit in the FT environment in the framework of implementing a quality assurance system, 4) coordinating data collection in each unit work within the FT environment, 5) coordinate with LPJM UNJ in implementing quality assurance at UNJ.

The quality standard of the learning process is part of the national standard of Education which is very important to deal directly with services to students. A good learning process is expected to bring forth qualified or competent graduates in their fields.

According to some Education technology experts, there are three basic components in the concept of learning technology based on Education namely the characteristics of students and the environment, learning strategies, and graduates are process and output inputs [10]. In the standard statement of the learning process, it is stated that each study program has a standard learning process to meet the learning achievements of graduates (CPL) which includes the characteristics of the learning process, planning the learning process, implementing the learning process, and the learning burden of students. The next statement stated that lecturers must provide a learning process that is interactive, holistic, integrative, scientific, contextual, effective, collaborative, and student-centered [11].

2.4. Quality Concept

Quality is seen as something relative. In a relative context, a product or service does not have to be expensive and exclusive. The product or service does not have to be special, but it must be original, reasonable and familiar. Goods can be said to be quality if it meets the standards. Thus, quality must do what should be done and the customer wants. In other words the service must be in accordance with its purpose.

The relative definition of quality has two aspects. First, adjust to specifications. Second, meet customer needs. Adaptation to specifications is often concluded as being in line with objectives and benefits. Quality for producers can be obtained through products or services that meet predetermined specifications in a consistent style. Quality has a system called a quality assurance system. This system allows the production wheel to produce products that are consistent, according to certain standards or specifications. A product is said to be of quality as long as the product is, consistently in accordance with the demands of the manufacturer.

Harvey and Green (1993) propose 5 ways to think about Quality in Higher Education, namely: 1) Quality is seen as something extraordinary related to the highest academic

excellence, this kind of quality cannot be achieved by all; 2) Quality as perfection, namely seeing quality as a process to eliminate defects and aim for consistent or flawless results. In this view, quality can be achieved by all by focusing on consistency; 3) Quality as appropriateness for objectives - in this view quality is measured by the level of fulfillment of stated goals, missions or goals - either by the institution or academic program; 4) Quality as value for money - the focus here is on the ratio of output per input, with the aim of getting more efficiency. In other words, this is similar to the return on investment. Quality is achieved when better or higher results can be achieved at the same cost, or if costs can be reduced while the yield level is maintained; 5) Quality as transformation - this approach shows student-centered learning; views quality as added value and transformation and empowering students through the learning process. In this scheme, quality is achieved when learning proves to be transformative for students [12], [13].

2.5. Quality Control and Quality Assurance

Quality control is a quality concept that involves the detection and elimination of failed components or products that are not in accordance with the standards. This is a post-production process that tracks and rejects defective items. Inspection and inspection are common methods of quality control that are widely used in education and have the function of checking whether the standards have been met or not.

Quality assurance is different from quality control, both before and during the process. This emphasis aims to prevent errors from happening early in the production process. Quality assurance is designed from the beginning of the production process. Quality assurance is designed in such a way as to ensure that the production process produces products that meet predetermined specifications. Quality assura nce is a way to guarantee that the production process produces products that meet predetermined specifications. Quality assurance is a way of producing products that are free of defects and errors. The aim is to create a zero defects product [13].

The product is a subject of the quality assurance process, so the first thing that the producer must do is to determine and control the source of the material, then the raw material must go through a number of predetermined standard processes. Production results must be able to meet the specifications established and defined previously. Such a model is not easy to apply in education and requires an initial selection for students to be processed.

An educational institution is a service or service and not industry or production. The difference between services or products and products is very important, because

with the fundamental difference between the two, then how can the quality of both be guaranteed to be created.

2.6. Evaluation Model used

The program evaluation model used by researchers is the Countenance developed by Stake. The countenance is an evaluation model that emphasizes the implementation of two main things, namely (1) description (description) and (2) consideration (judgment); and distinguishes the existence of three stages in program evaluation, namely (1) antecedents (antecedents), (2) transactions (transactions), and (3) outputs (output-outcomes). Evaluation models proposed in the form of diagrams illustrate the description and stages as shown in Figure 2.2

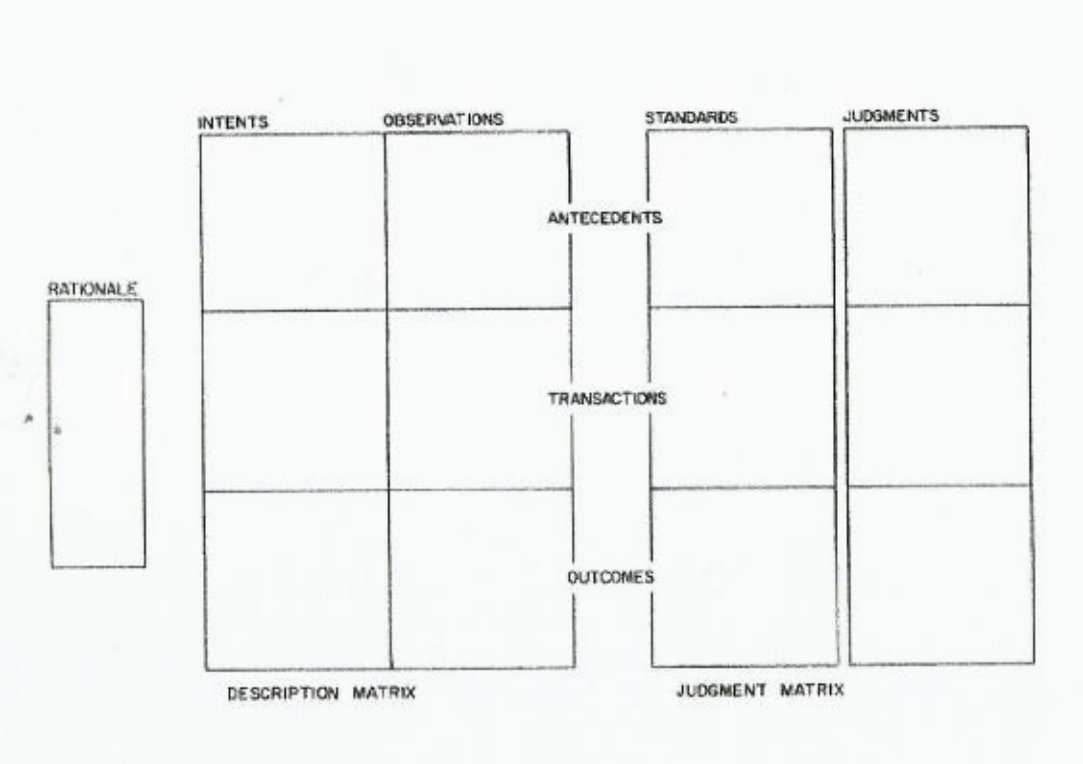

Figure 1: Layout of statements and data to be collected by evaluators

Description matrix consists of inten and observation. Inten is the initial condition and planning for internal quality assurance. In the context of the internal quality assurance program, the quality assurance group and the study program plan the desired requirements for the internal quality assurance program activities. In the first category consists of antecedents, transactions, and results. The three cells contain the expected, anticipated and even feared effect [14].

The second category is called observation, related to what is actually the desired implementation of the first category. This category as well as the first category consists of antecedents, transactions, and results. Evaluators must make observations (data collection) regarding antecedents, transactions, and results that exist in an educational unit. In the context of the internal quality assurance program, evaluators collect data in the study program

The second matrix is judgment, consisting of standard and decision categories. Standards are criteria that must be met by a curriculum or program that is used as evaluation. Standards can be developed from the characteristics of the curriculum, but also from others. The second category is the decision category. This category requires the evaluator to make a decision from what is done from the first and second categories of the description matrix to the standard category of consideration matrix. An evaluation must arrive at decision making.

2.7. Evaluation Criteria

Criteria are measures or standards to determine the level of success of a program or the implementation of a policy. The internal quality assurance system is the implementation of a higher education policy, therefore the source of the criteria is the Education law and applicable Ministerial regulations. In addition, the criteria are also sourced from quality standard books and quality manuals made by the SPMI program. To determine the description of achievement or performance that has been obtained, the following benchmarks are used as shown in Table 1:

Table 1: Program Achievement Description Table [8]

NO.	Achievement Criteria	Description
1.	0% - 20%	Very less
2.	21% - 40%	Less
3.	41% - 60%	Enough
4.	61% - 80%	Well
5.	81% - 100%	Very good

2.8. Design Study of Internal Quality Assurance of FT UNJ

Figure 2 shows the design of quality evaluation at FT UNJ**.** Design evaluation consist Matrix description and matrix judgment. Description consist intent and observation.

Intent and observation consist of antecedent, transaction, outcome. Judgment matrix consist of standard and decision. The result of the decision become recommendations.

The evaluation flow of the Countenance Stake model consists of four steps, namely the first step, collecting data, logical analysis, and empirical analysis.

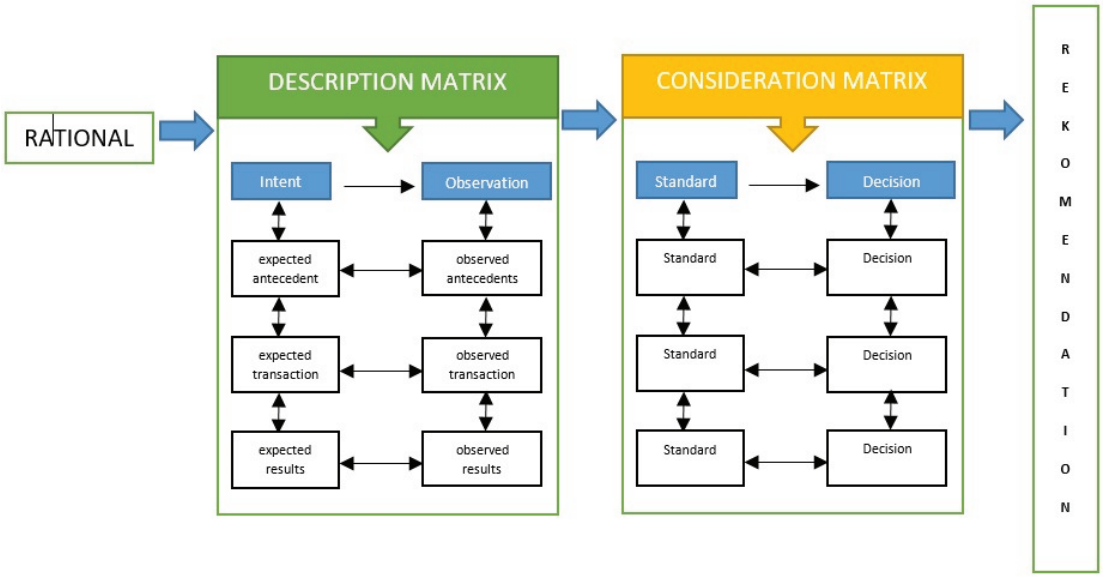

Figure 2: Design of quality assurance evaluation at FT UNJ

2.9. Research Instruments

The instrument consists of 3 namely:

1. Instrument Input (Antecedence) to retrieve data or information when planning the learning process
2. Process Instrument (transcription) to retrieve data or information during the learning process
3. Outcome instrument for taking data or information after the learning process

2.10. Research Results

2.10.1. Bachelor of Culinary art Study Program (Tata Boga)

1. Antecedence Stage. Study of completeness of study planning documents (RPS) from 18 sample subjects, all courses have RPS (100%).

2. Transaction Stage. Study of learning process documents (forms 05, 06) from 18 sample subjects completed an average of 83%. Assessment of the implementation of learning conducted by students on average 74%.

3. Outcome Phase. GPA of semester 105 - 110 is an average of 3.38. Graduate satisfaction with academic services averages 79.63%. Assessment of external customers against graduates 84.75%.

2.10.2. Bachelor Informatics and Computer Education Study Program

1. Antecedence Stage. Study of documents (RPS) from 18 sample subjects there are 2 courses that are not equipped with RPS (88.8%).

2. Transaction Stage. Study of learning process documents (forms 05, 06) from 18 samples of subjects completed an average of 76.3%. Assessment of learning implementation conducted by students on average 70.6%.

3. Outcome Phase. GPA of semester 105 - 110 is an average of 3.36. graduate satisfaction with academic services averages 85.6%. Assessment of external customers to 89.39% of graduates.

2.11. Recommendation

1. Everyone who is involved in quality control should be committed to quality improvement. Faculty management must accommodate the need of internal stakeholders (lecturers and students). Administrative staffs should be friendly in providing their service. Lecturers must adhere to promised academic quality as stated in the program study vision and mission.

2. Laboratory facilities have not met the needs of the study programs with lack of lab equipments and not up-to-date available technologies. In regard to this, the faculty management should make it a priority to improve the faculty's laboratories, making them up to the needed standard for teaching and learning.

3. There is a tendency that lesson plans are only written once and not revised periodically to keep up with the changing need of stakeholders. Therefore it is recommended that faculty management shold facilitate curriculum and lesson pla revision regularly.

4. Learning process should be improved both in terms of form 05 and form 06, and the learning process. The majority of learning is still in conventional form and not student

centered learning, tend to be one way and does not grow student creativity. Lecturers should create lecture in a more in interactive form, holistic, integrative, scientific, contextual, effective and student centered.

5. The study programs must have guidelines on learning process and implementation.

6. The study programs must provide guidelines of learning process characteristics that fit with lesson objectives.

7. FT UNJ should facilitate workshop on lesson plan and learning process that are interactive, holistic, integrativem contextual and student centered.

8. FT-UNJ should facilitate lesson plan review and revision regularly each year to accommodate technology changes and the need of stakeholders.

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