

## Implementation of learning processes using total quality management at universidade oriental and universidade Dili of Timor Leste

Antonio Guterres<sup>1\*</sup>, Agostinho dos Santos Goncalves<sup>2</sup>, Sebastiao Pereira<sup>3</sup>

<sup>1,2,3</sup>Instituto Superior Cristal, Timor Leste; antonioguterres85@gmail.com (A.G.).

**Abstract:** Quality is the most important agenda faced by all educational institutions in improving their quality. The quality dimension can be seen from two points of view: the process of producing each product and the quality produced by each product, including product dimensions (goods) such as function, performance, reliability, strength, ease of care, aesthetics, and suitability, as well as the service dimension (service) consisting of speed of response, resources, friendliness, and accuracy. The objective of this study is to understand how the learning process is insightful for total quality management at the existing universities in Timor Leste. This research includes planning, implementation, evaluation, and follow-up learning, as well as factors affecting the learning process at the universities in Timor Leste. This research is a qualitative study using a case study model. Data were collected through interviews, observations, and documentation. The collected data were then analyzed in depth by examining a single case through coding, data display, and drawing conclusions in each case, followed by cross-case analysis to arrange the concepts and points of the existing cases. Data validity was ensured through credibility, transparency, dependency, and confirmability. The results of this study show that total quality management-oriented learning planning should involve the entire academic community, taking into account the needs and customer satisfaction (students) by using instructional guides, learning tools, and an oriented learning process that includes human resources, facilities, media, and learning resources, as well as the commitment of the academic community, the academic environment and culture, and the motivation and interest of the students.

**Keywords:** Higher education, Learning, Total quality management.

### 1. Introduction

Quality is the most important agenda faced by all educational institutions in improving their quality [1, 2]. Many people find that the concept of quality is very confusing to define and measure. Quality dimension can be seen from two points of view, that are, the step of process of producing each product and each product produces quality, including from product dimensions (goods), such as: function, performance, reliability, strength, ease of care, aesthetics and suitability, and the service dimension (service) consisting of: speed-response, resources, friendliness and accuracy. Education is basically a process of cultural transmission to improve human quality. To achieve that goal, it is required the utilization of all components in education as a system including curriculum components, education personnel, knowledge, learning tools and learning components having a "oral" interaction in the education system [3]. Along with the development process of Timor Leste in the Portuguese era and the power of Indonesia until the era of independence the government now constantly seeks to improve the welfare of the community, especially the field of education and more specifically in the learning process as set in Constitution of the Democratic Republic of Timor-Leste Part I Fundamental Principles Articles Thirteen (13) Official Languages and National Languages and Title III Economic, Social and Cultural Rights and Duties and Articles Fifty-Nine (59) Education and Culture.

*Articles Thirteen (13) Official languages and national languages (1) Tetum and Portuguese are the official languages of the Democratic Republic of Timor-Leste, (2) Tetum and other national languages are valued and developed by the State and Articles Fifteen (15) Education and Culture (1). The State recognizes and guarantees citizens the right to education and culture, and is responsible for creating a public system of universal, compulsory and, to the extent possible, free basic education, in accordance with the law, (2). Everyone has the right to equal opportunities for education and vocational training, (3). The State recognizes and supervises private and cooperative education, (4). The State must guarantee all citizens, according to their capabilities, access to the highest levels of education, scientific research and artistic creation and (5). Everyone has the right to cultural enjoyment and creation, as well as the duty to preserve, defend and value cultural heritage.*

States that to improve the quality of education, the implementation of Total Quality Management Education (TQME) in universities should be run with the emphasis on efficiency and quality improvement [4-6]. Similarly, the principle of Total Quality Management (TQM) can be applied in higher education by considering that the education process at high level is a continuous educational process improvement, starting from a series of cycles since the idea to produce graduates (output) quality, curriculum development, learning process, to the responsibility to satisfy the college graduate's users. In addition, it is necessary to develop a quality system consisting of: quality system planning, quality system control, and improvement of quality system. Ricoh (in Gaspersz [7]) states that the total quality management (TQM) philosophy is oriented towards the three most important areas: market orientation (customer), without error to customers and basic needs based on facts [7].

Suggests that industrial or educational process should be viewed as a continuous quality improvement to produce a product that can contribute to the customer. Based on that opinion, the researcher believes that with the research on implementation of learning process of Total Quality Management (TQM) of higher education quality, it will make the graduates (output) of higher education as service industry in the form of services to customers more satisfactory [8-10]. It is easy to understand because the learning process is the estuary of educational activities [7].

To achieve product quality objective of applying of learning process using Total Quality Management (TQM) in this research, the researcher will identify some problems that are not relevant to the learning process. Based on the results of initial observations by the researcher, it is found an indication of gaps in the implementation and inhibiting factors (support) of the learning process so that the need for more in-depth research in order to improve the quality of the learning process can be effectively and efficiently.

The uniqueness of this research is to transform the implementation of Total Quality Management (TQM) which is generally used by the company in order to improve the quality and productivity of the company to achieve continuous improvement and focus on customer satisfaction developed by Edward Deming theory [11-13]. However, in this study the researcher considers that the implementation of TQM in universities of Timor Leste, especially UNITAL and UNDIL universities can provide an understanding of the quality gained from business experience, that can be applied in the world of education so as to encourage the best practice of education management in the learning process. Urgency in this research is expected to encourage public attention both national government, educational institution and society in order to get serious attention in hatching quality issues of higher education continuously, so as to produce quality through good learning process and guarantee development of university in reaching status in the midst of an increasingly tough world of educational competition.

### 1.1. Research Objective

Based on the research focuses above, the objectives of this research are formulated as follows.

- a) To describe and analyze the planning in the TQM-oriented learning process at Timor Leste universities?
- b) Describe and analyze the implementation in the TQM-oriented learning process at Timor Leste universities?

- c) Describe and analyze the evaluation in the TQM-oriented learning process at Timor Leste universities?
- d) Describe and analyze the follow-up improvements in the TQM-oriented learning process at Timor Leste universities?
- e) Analyze the influencing factors in the TQM-oriented learning process at Timor Leste universities?

## 2. Method

Research data with a qualitative approach was in the form of words or sentences that describe the focus of research phenomena that have been established [14, 15]. Qualitative data will be interesting if it is able to describe the phenomenon that occurs in the two universities and it is studied in a solid and in-depth manner. The qualitative data is very interesting because it is the source of a broad and well-defined description and contains an explanation of the processes occurring within the local scope. With the qualitative method, the data could observe and develop the flow of events chronologically, assess the causal reasoning of the local people, and it would be useful and could provide an explanation as well. Data collection conducted in this research are: (1) *In-depth interview*, (2). *Participant Observation* and (3) *Documentation*.

## 3. Result and Discussion

### 3.1. Planning in the learning process with total quality management insight at private university of Timor Leste

Learning planning with TQM insight, must meet at least four aspects. First, learning planning should be planned by involving all academic community, i.e. leaders, quality assurance units, lecturers and even students [16, 17]. Second, the planning of learning starts from the preparation of academic guidebooks which regulate the curriculum, learning process standard, and academic calendar. Third, the learning plan prepared by the lecturer should pay attention to the customer needs (costumer focus). Fourth, the lesson planning is performed by the lecturers in the form of learning tools preparation that includes the instrument and indicator of the learning process that will be conducted in the form of syllabus and lecture unit [18].

### 3.2. Implementation of learning process with total quality management insight at the university of Timor Leste

The implementation of the TQM-oriented learning process works well, while meeting and observing some of the learning process standards [19, 20]. There are three aspects of concern in the implementation of learning with total quality management insight at the universities. The first is learning activities that include opening activities, core activities and closing activities. Second, the implementation of TQM-based learning should be able to use and utilize the media and learning facilities, methods and learning strategies. Third, there is an interaction between lecturers and students with good cooperation.

### 3.3. Evaluation of the learning process with total quality management insight at the university of Timor Leste

There are three things to consider in the evaluation of TQM-oriented learning at Timor Leste universities, namely: first, evaluation of learning process conducted by the leader of the lecturer through supervision as a form of monitoring of the learning process and lecturer performance report as a form of evaluation of lecturers' performance results in the field of learning. Second, the evaluation of learning performed by lecturers to the students through 2 forms, namely learning process evaluation and evaluation of learning outcomes. Third, evaluation of learning outcomes can be done by observing the 4 aspects, namely liveliness, completion of tasks, midterms and semester exams [21-23].

### 3.4. Follow-up improvements in the learning process with total quality management insight at the university of Timor Leste

Follow-up improvements in the TQM-oriented learning process at the Timor Leste University can be considered that the evaluation in the TQM-based learning process has 3 components [24]. First, follow-up as a continuous improvement effort by guiding the form of preparing education and training (Diklat) for a quality process of learning. Second, rewarding the lecturers who have performed well in teaching and also giving punishment, in the form of reprimand or dismissal for the teacher with poor performance. Third, lecturers give *kesakak* to the students to improve learning result with additional task and motivation and awards [22, 23, 25].

### 3.5. Supporting and Inhibiting Factors in Tqm-Based Learning at Timor Leste Higher Education

Several factors influence the TQM insight pursuant to the Timor Lesteneese archaeological scene [3, 15, 26]. First, lecturer resources, which must fulfill the quantity and quality factor and also the commitment to the learning process. Secondly, the resources of the learning facilities / media that adequately and properly manage. Third, the commitment of leaders and all academic community, high commitment, for a better learning process. Fourth, a supporting atmosphere and academic culture, when the policy of the cultural environment is good, then the learning will result in maximum achievement, and vice versa. Fifth, motivation and interest of students in the learning process, an optimum internal and external motivation of students which will be delivered in the process.

## 4. Conclusion

### 4.1. Research implications

The implications of the findings of this study include two things, namely theoretical implications and practical implications. The theoretical implications are related to contributions to the development of theories of management education in general, particularly in the field of TQM-oriented pursuit management. While the practical implications are related to the contribution of research findings on the application of learning process insight of total quality management at universities.

### 4.2. Theoretical implications

In this research, the research propositions have been proposed related to the five main focuses: (a) planning in the TQM-oriented learning process at Timor Leste University, (b) implementation in the TQM-oriented learning process at Timor Leste University, (c) evaluation in the TQM-oriented learning process at the universities of Timor Leste, (d) follow-up improvements in the TQM-oriented learning process at Timor Leste universities, (e) the factors influencing the TQM-oriented learning process at the Timor Lestese universities. This research resulted in the theoretical implications regarding the application of the total quality management (TQM) insightful learning process. This, the findings of this study theoretically serve as a development of previous educational management theories. The theoretical implications of this study are related to the aspects of learning management specially to develop a model of learning with total quality management insight. Judging from the study of management education, the analysis of learning management is one of the studies on management education that needs to be constantly explored and developed continuously.

During this time, there are only 3 aspects known in the learning process. The three aspects are learning planning, implementation of learning, and assessment of learning. Thus, in this dissertation the process of learning is limited to three aspects only, then according to the results of this dissertation after the evaluation or assessment, there must be a follow-up as an effort and ways to continuously repair the shortage and improve the good.

### 4.3. Practical implications

Based on the research findings and related theories stated earlier, the practical implications are as follows.

First, universities in lorai Timor need to prepare an academic script of quality assurance of learning. This is because learning can only be conducted when meeting the proper quality rules. Moreover, the

academic script is a guide for the leaders and lecturers in implementing the learning process.

Second, the learning process must be started with good planning, which must apply the principle of TQM, focusing on the customer (student), then in the learner planning, implementation, evaluation and follow-up should always involve all elements and the academic community elements.

Third, in implementing the learning process at the universities, there should be a team that controls and monitors the learning process. This team is usually called an internal quality assurance unit. This team is responsible for the development and learning and controlling the learning quality. This unit should start from the top, rectorate, and faculty levels as well as at the level of study program or department.

Fourth, for the universities, in applying TQM-oriented learning, should consider the available resources. Thus, every university is expected to organize or manage the existing resources well and always increase the quality and quantity. Especially human resources (HR) which require special attention, because HR is the perpetrator of the policy. When the human resources is sufficient and supportive, then the implementation of learning TQM insight can be conducted properly.

#### 4.4. Suggestion

Based on the overall description and conclusion of the research, the suggestions for the share parties are as follows.

For the Ministry of National Education of Timor Leste

- a) The ministry should make policies on the rules of learning for all universities in Timor Leste so that they can be used as national guidance.
- b) The Ministry as the policy maker should provide and facilitate education and training to improve the quality of learning activities at the university.
- c) The ministry should pay attention more to the learning process undertaken at the university by rewarding the universities based on the aspect of learning quality.

For Higher Education

- a) University is expected to establish an academic script as well as academic guidance on the development of the learning process based on quality at the university, in order to be used as a reference in the learning process in each university.
- b) The university is expected to form a special unit (internal quality monitoring) to study, design, monitor, and evaluate the learning process from the rectorate, faculty up to the level of majors and study programs.
- c) The university expected to create a concept of deming cycles in quality assurance of the learning process, from planning, implementation, evaluation and follow-up improvement, and so on, for continuous improvement.

For Academic Community of Higher Education

Leader

- a) Leaders of the university are expected to participate in the learning process at the university. Leaders should participate in the planning of learning, participate in monitoring during the implementation of the learning process and make evaluations of the learning activities performed by the lecturers.
- b) University leaders should provide follow-up improvements to the learning process, and develop guidelines or SOPs of improvement with total quality management standards.
- c) Leaders are expected to establish good communication and cooperation with all academic community, especially lecturers as the learning actors because with communication and cooperation, learning process can run well.
- d) Leaders are expected to always develop human resources, through coaching and career development, and evaluate using reward and punishment models.
- e) University leaders must commit to quality learning, as well as in continuous improvement

efforts.

#### Lecturer

- a) Lecturers should understand the philosophy of learning, learning as an effort to improve the quality of human resources from various aspects.
- b) The lecturers are expected to be able to plan the learning activities involving the students in order to fulfill the needs of the students since the focus of TQM principle is customer satisfaction.
- c) Lecturers should be able to conduct learning activities by using various methods and learning media and should be able to interact well.
- d) Lecturers should be able to provide a fair and clear assessment and evaluation instrument to the students by taking into account several aspects, apart from the cognitive aspect.
- e) Lecturers are expected to provide follow-up process and learning outcomes, as a continuous improvement effort.

#### For the Learning Management Expert

For educational management experts, especially learning and education management experts, it is necessary to give attention and suggestions to the universities in order to make an appropriate learning planning with customer needs, implement comfortable and varied learning, evaluate learning with transparency, and establish follow-up efforts for a continuous improvement of learning. It is designed to be a learning management unit based on integrated quality.

#### For Future Researchers

For future researchers interested in this research topic, it is possible to develop and explore deeper about how to formulate follow-up improvements that are addressed to customer needs, which involve organizing existing aspects or components. In addition, future researchers are expected to focus more on the efforts that must be performed by universities so that the existing learning process can comply to the standard of total quality management.

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### Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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