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# The TQM Theory Application in Teaching Quality Management for Higher Education

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Abstract—The teaching quality is very important for the organizations of higher education in the current competitive environment. The managers in higher education organizations should focus on how to improve teaching quality in specific management philosophy. The Total Quality Management approach has been identified in this article to show how this approach should be applied in practice management in educational organizations. In specifically, the concepts of higher education and teaching quality management are demonstrated firstly. Then, the TQM approach, which is evaluated in the aspect of management philosophy, is related to the management of teaching quality.

Keywords—Total Quality Management approach; teaching quality management; higher education; management philosophy

#### INTRODUCTION

Today education should have been more competitive to promote the development of global education industry. Moreover, Higher education, which is the top of the educational pyramid, has become a gradually important role in society. The proportion of youth entering higher educational institutions has increased in most developed countries during the last decades [1]. The higher education can be described with some characteristics such as training for skillful talents for socially desirable, the transmission of knowledge certification, attitudes and values [2]. Therefore, the quality of higher education should influence the development of society directly and need to be focused on.

# THE MANAGEMENT PHILOSOPHIES APPLIED IN THE TEACHING QUALITY MANAGEMENT

#### A. The Concept of Higher Education

There seem to be some general features in the way the educational system is organized in any countries. Specifically, it generally can be seen two distinct structures in the university, which includes the hierarchical administrative structure and flat academic structure [3]. The second feature is that many employees in the university are knowledge specialists. They are permanent allegiance to their disciplines but just temporary loyalty to the institution. Moreover, colleges are to a large extent detached from the society in pursuing the tasks of

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transmitting knowledge and conducting research. In addition, teaching and research should be operated from individual faculty autonomy to make sure the end product [4]. The final character is that decision making of policy in universities would be spread throughout the organization. Furthermore, students could have a substantial voice for the issues. These features could be found in most institutions of higher education

# B. TQM Applied in the Teaching Quality Management

The TQM approach is generally accepted by many higher educational organizations all over the world to improve the organizations' quality. The proposal of TQM in university focuses on continuous improvement of management for improving the teaching and learning processes [6]. These processes are implemented to contain each basic part such as teachers, administrators, students, parents.

The Teaching Quality Management center aims to construct and operate the undergraduate teaching quality monitoring and improvement system with the TQM approach. responsibilities involve continuously quality improving for each teaching process, undergraduate teaching management and guarantee supervising and inspecting, a closed-loop quality assurance system forming. The actions should actually clarify employee participation, pay attention to student satisfaction and facilitate an organizational for continuous improvement in quality [7]. The characteristic of continuous improvement in the TQM methodologies aims to improve quality leadership and optimize quality. Therefore, the TQM models should be included with the dynamic change which is fundamentally significant as the need for new trends arises in an organization. The improvement for higher education should be for a long period which is not just a temporary task [8]. It is in particular for the private universities in China that need to develop all by themselves to catch up the level of the public university with government's support.

The continuing modifications should be seen as a regular requirement in the education system because the modification is inevitable. The ongoing procedure should be adapted in current society to compete with the competitors. The educational organizations would be stagnating and eventually incompetence if they fail to change and develop, [9]. Moreover, the student can get opportunities to evaluate the teaching quality for the persistent operations of courses evaluations



which can be seen as an enhancing of the model. Furthermore, student feedbacks of teaching quality could be utilized more effectively to identify strengths and weaknesses of the whole department and individual instructors perform [10]. The dynamic information collected from the processes of TQM implementation can be used to identify individuals with specific areas of expertise and departments with the responsibilities finishing. Furthermore, it could also be used to decide who require further training and reveal the performance of specific department [11]. In conclusion, the TQM model could have suggested methods to improve teaching quality results of departments and individual teaching performance in organizations of higher education.

#### C. The Discussion of Management Philosophies for TQM

The theory of Total Quality Management is invented initially as a term to describe the Japanese-style management approach to quality improvement. It demonstrates the knowledge of classical management method, the theories of the behavioral sciences, the assessments of the process management and analysis for both quantitative and nonquantitative data [12].

It can be described that the principles of scientific management, which demonstrated that businesses should be clearly divided into a variety of processes about designing and carrying out the plan, are derived the idea about quality management in the early period. Moreover, the union opposition arose from workers had also aimed at the reasonable conditions and functions of their work which are different from the requirements of employers. The Hawthorne experiments described that situation of worker participation would influence the productivity of production in the late 1920s [13]. Then, the methods for statistical analysis about quality control had been developed by Walter Shewhart for further management. The model of statistical analysis about quality control for Japanese engineers and executives, which can be considered as the beginning of TQM, had been established by Deming in 1950s. After that, Feigenbaum had stated his understanding of the total quality management as a forerunner in his published book which called Total Quality Control. Therefore, TQM is the name for the synthesis philosophy which combined different approaches to managing organizational quality. At present, there are also some of awarding programs about quality such as the Deming Prize or many quality standards such as the ISO 9000 series which have focused on the principles and processes from the theories of the TQM.

# III. THE INTEGRATION OF MANAGEMENT METHODS TO IMPROVE TEACHING QUALITY

Actually, the work should be done about the managers in Teaching Quality Management Center could be divided into two parts. One is for the management of the center. And the other one is for the construction of TQM all around the university from different aspects [14]. It is the truth that the management of the employees in the center should also be one part of the TQM. However, the center which should be the promoter of the teaching quality management requires all staff to realize what teaching quality is, how to promote teaching quality and execute effectively. Hence, how to assist the

director to manage the department well is the first obligation for deputy director. Furthermore, the management philosophy which is called the Total Quality Management in higher education is complex to be used to construct a completed system. And the application of the TQM in the teaching quality improvement of our university is just begun and in an initial stage [15]. This part I will move forward to identify the deepen TQM with management theories I got from the course of Advanced Management Philosophy. I have not learned the management theories before, so the methods used in working cannot be stated clearly. However, systematic learning could help managers to clarify the concepts of management methods and offered them an evolutionary possibility of the management philosophy.

## A. The Evolution of TQM

The objective of total quality management would aim to keep the long-term existing and continuous development of the individual organization in the basic operating. Hence, the theory of TQM should be a business philosophy to focus on the management system to implement a revolution against the traditional methods of management. Basically, the TQM is the evolutions and integrations of a series of management methods from a different school. Therefore, the evolution processes would be shown first.

It has integrated the classic management approaches to focus on the efficiency, rules and regulations in a teaching quality improvement system. The classical approach actually includes two viewpoints which are called scientific management theory and general administrative management theory. The Principles of Scientific Management which are claimed by Frederick Winslow Taylor in 1911 demonstrates the scientific management theory which is to define the "one best way" for a task to be done. Moreover, it can be used to deals with the jobs of individual employees to ensure the probability. In addition, general administrative management focuses on managing the total organization. Fayol paid attention to the whole management for an organization while Taylor just concentrated on the individual task management. The general administrative management identified by Fayol shows the practical management which incorporated different areas such as finance, production, distribution, marketing and other typical business functions. The 14 principles of management which are fundamental rules of management are concluded by Fayol for applying to all organizational situations. Hence, the principles can also be used for improving teaching quality in schools. Then, the theory of bureaucracy has attempted to formulate a perfect model for organizations by Max Weber. The large organizations should still be evident to express the characteristics of bureaucracy's theory in their management to identify the efficient of the resources consuming. And the theory of bureaucracy is actually suitable in the university, especially for a private university.

Furthermore, the behavioral management school emphasized on individual behaviors and attitudes in group processes. The importance of behavioral processes has been analyzed by the theory which believed that people were the most important factor of organizations. Hence, employees should be managed in a suitable way. The Hawthorne Studies



indicated that the human element in institutions would develop informal groups that can influence the behavior of the members because of the interaction between worker morale and quality of supervision intertwined. Shewhart provides a basic definition of quality and tries to develop a suitable method for controlling the quality of working in a continuous period. He created the way of the statistical quality control to bring a process into the management with waste reducing and quality improving with statistical analysis of collecting data from the process.

Deming stressed one important point that customer is the most important part of the business processes. It meant that the students should be focused as the most important part for the teaching quality management. The concept of customerfocused stressed that product quality and yield must be sure for production management. Hence, the cultivating effect of students is key indicators to evaluate the teaching quality. Deming also incorporated a market survey to product quality which has created the needs for Japanese products from all over the world. He emphasized that improvement in quality based on surveys will create a chain reaction in organizations' development. Lastly, Deming synthesized all the concepts which included quality, statistics and surveys into the distinguished theory of management about total quality. The implementation of TQM in teaching quality management requires a profound level of understanding and creates a suitable environment in the campus to make sure faulty of the organization understands and does their best. Because it is very dangerous to do improvement without understanding the original theory by Deming. The initial mission should also be identified to guide the implementation of the TQM theory. It means that the initial conditions need to be focused on. Even though the Failure implementation can be considered as a process for effective management if the failure experience can be absorbed for the following steps. TQM implementation aims to obvious changes to be done for the organization and attitude shifting of management. The expected attitude changing of managers would be a complicated job and so hard to measure. The entire TQM program might have been a failure if the old attitudes of managers have kept constant. It should be paid attention to the dynamic market conditions to implement successful total quality management in the situation of organizational changing. However, the TQM projects are also limited to change the organization successfully if the implements are inconsistency with TQM initiative. It is very significant of the understanding of top managers about the barriers to impede the effective TQM implementation. The main reason for failures of the TQM would be the mismatching between the objective and methods of TQM. The failures might have been the result of unplanning to begin the TOM and copying tools and methods from others without understanding the processes.

# B. The Integration of Methods to Improve Teaching Quality

Obviously, the design of TQM is based on the evolution and integration of a series of management philosophies. There would be no a perfect method to be used in an organization to make sure the prosperity forever. Therefore, the TQM philosophy we used in our teaching quality management is also

needed to be improved. The all management philosophies which promote the quality system can be integrated in the TQM. And the part which has been omitted should be focused deeply. It is also consistent with the contingency management approach.

Specifically, the most obvious characteristics of Modern Management Theories that make them different from the other schools of thoughts are openness and integration. It can be seen that many factors of the earlier methods in management theory would go on to affect the behaviors of managers. The organizations which have faced different environments and required different methods of managing are different. The general principles would not be able to be applied in all situations for effective management. Managers should use different approaches and techniques for total quality management in different situations and industries even follow the same theory. It should be known that the classical, behavioral and quantitative methods in quality management are not conflicted. In addition, an integrated understanding of management should require a comprehensive understanding of all three schools.

#### IV. CONCLUSION

The modern management needs to be followed by the scientific methods to ensure the effect in some typical models. The evolution of modern perspectives of management begins with the classical management approach and keeps going. The utilization of the TQM theory in teaching quality improvement should be meaningful for the development of higher educational organizations. The TQM is actually an effective method which integrated many previous management methods to stimulate employees and satisfy customers in a suitable era. Furthermore, the approach is used to manage the teaching quality of higher education and get many positive results. The management philosophy can be used in all educational organizations to improve the quality of students. In fact, TQM has already been used to improve the teaching quality management system in many universities.

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