Suggested Model for E-learning Quality service

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Abstract

- E-learning considered being a solution for spreading participation, learning for continuing professional development, reduction of resources, and internationalization. Concerns hover around E-learning Service are:- Quality of service and outcome, and efficiency of the education offered. In this paper, a model suggested to offer the way to defeat concerns, by Applying Total Quality Management philosophy through the E-learning system to increase confidence in this style of education.

Keywords: Total Quality Management (TQM), Baldrige, E- Learning, Quality Function Deployment(QFD).

Introduction

E-learning considered being a solution for the challenges of spreading participation, learning for continuing professional development, reduction of resources, and internationalization. Concerns always hover around the quality and efficiency of the education offered through e-learning service. Applying Total Quality Management philosophy through the E-learning system can increase confidence in this style of education. To be successful implementing TQM, its eight key elements should be the main focus. Meanwhile, The Baldrige Criteria provide a comprehensive way to achieve and sustain high performance across the entire educational organization. It is applied to improve schools and its student’s education. It is a valuable framework for measuring performance and planning in an uncertain environment. The Criteria help education organizations achieve and sustain the highest national levels of:-

a) student learning outcomes
b) customer satisfaction, safety, and engagement
c) product and service outcomes, and process efficiency
d) workforce satisfaction, safety, and engagement
e) budgetary, financial, and market results
f) social responsibility

The measurement, analysis and knowledge management in the Baldrige criteria examine how the organization selects, gathers, analyses, manages, and improves its data information, and knowledge assets. And how it manages its information technology. It also examines how organization uses review findings to improve its performance. Consequently, there is a need for quality function deployment to evaluate potential responses against needs, to align and compare external realities, internal activities, and financial targets. The main role of QFD is to obtain the voice of internal and external customers and stakeholders, and align functions and activities to deploy “Quality” appropriately for success. The Suggested E-learning Model aims to improve the opportunity of learning in the developing countries Society. The Idea of this Model is based on a merge between the Eight Elements of Total Quality Management (Ethics- Integrity – Trust – Training – Teamwork – Leadership – Recognition –Communication) (Padhi, 2010), Baldrige criteria for performance excellence framework (steel, 2012),and Quality function deployment.

The Elements Of Quality:

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In 2010 Nayantara Padhi explains in his paper “the eight Elements of TQM”, that these elements help TQM to describe a philosophy that makes Quality the driving force behind Leadership, design, planning, and improvement. He groups them in a form of a house where the foundation is the Integrity & Ethics. The Bricks were Leadership, Teamwork, and training. Recognition represented the roof, while Communication was the binding mortar.
Baldrige Criteria Framework

In 2012, Paul steel argued in his paper “The Baldrige Business Model” that Baldrige, integration of systematic processes is the most active approach to accelerate organizational improvement.

On the web page http://www.Baldrige.com accessed the 23rd of September 2013, it is claimed that the Baldrige Criteria are built upon a set of core values and concepts. These core values are embedded in the seven Baldrige Categories:

a) Leadership
b) Strategic Planning
c) Customer Focus
d) Measurement, Analysis, and Knowledge Management
e) Workforce Focus
f) Operations Focus
g) Results

Each of these Categories is divided into Items and Areas to Address. The first six Categories each have two Items, while Results has six. The following figure presents Baldrige core categories.

These values and concepts are the foundation for incorporating key business requirements within a framework that creates a basis for action and feedback.

Quality Function deployment:
Referring to (Joseph P, Ficalora and Louis Cohen, 2010) in their book “Quality Function Deployment and Six sigma”, it was asserted that QFD is a method to plan and develop structured product or service, to enable a development team to identify the customer wants and needs, and then evaluate thoroughly each anticipated product or service capability in meeting those needs.

The Suggested E-Learning Model:
The suggested e-learning Model emphasise that the eight elements of TQM were engaged in the Baldrige criteria framework. QFD on the right top of the model is the main tool of evaluation of all the processes. It will allocate the customers’ needs to the Leadership management, who will align functions activity to deploy the eight elements of TQM, to produce a high quality E-learning system, which will affect the social culture and environment of the development countries people. The main process of the offered service is the communication. It appears in the Model comprising the core activities of the teaching and learning process. Communication could be Synchronous; concerned with chat, video conference, and shared blackboard. Or, Asynchronous; concerned with Electronic bulletin board, messaging, calendar, document repository, and wiki.
teaching and learning includes three mains activities affecting the learner:-

a) 1-Administration service: - concerned with enrolment, payment, and virtual library.

b) 2- Support service and staff:- concerned with teamwork, orientation support, and pedagogical and technical support.

c) 3- Learning Object:- concerned with accessibility, usability, and didactic.

The whole process of teaching and learning should interact with Integrity and ethics, teamwork, and training. Then the output arises in sort of high quality e-learning service, well-educated qualified members of society, and improvement of culture and environment. The circle will revive to deliver continuous improvement of E-learning quality service.

Figure 4: cycle of suggested model

II. The suggested E-learning Process:-

The following figure explains in details the application of the merged approach of TQM elements with Baldrige criteria for performance in the E- Learning Process represented by the big circle including all the activities.
Figure 5: E-learning process

1. High Quality E-Learning Service
2. Integrity and ethics (strategic Planning)
3. Communication (Customer Focus)
4. Recognition (Measurements, Analysis and Knowledge Management)
5. Teamwork (workforce)
6. Training (operation focus)
7. Admin. service & staff
8. Learning Object
9. Society culture & environment
10. Voice of customer
11. Quality Function deployment

Leadership

Voice of customer
General explanation of the E-learning process Model:-
The Idea of this model is to use Quality function Deployment (QFD) to translate and plan the” voice of the customer” into the quality characteristic of the service before enter the market. QFD analyse the client’s requirements,define how each requirement will be satisfied by the service,organize the needs,illustrate the relationship between the requirement of the customer in the market and the needs to fullfil them. The result will be transmitted to the leadership Management,who will deploy the quality ,and apply the eight Total Quality Management Principles going through the seven categories of the Baldrige Criteria.

In the Figure above, The two principles of TQM:- “Integrity and Ethics” represent the “Strategic Planning” in the baldrige criteria, at the base of the E-learning process. The “Communication” represents the “Customer Focus” comes at the second place. “The Recognition” represents “The Measurements, Analysis knowledge Management”at the third place, in the middle of the process to evaluate the first two steps In order to continue on a strong base through the remained two processes:- “Team work” which represents the workforce category,and “The Training” which represents the “Operation Focus” category. On the top of the five mentioned phases of management, comes the frontage of the process in sort of:-

a) Administrative service:- concerned with enrollment,payment, and virtual library services.
b) Support service and staff:- concerned with the orientation support,teamwork,and pedagogical and technical support.
c) Learnig object service:-concerned with accessability,usability, and deductic.

The result of all the previous phases shall affect the learner through the afforded high quality E-learning service. The high qualified personnel educated through the high quality E-learning system, will affect the social culture and environment from where comes the “voice of customer”, to be analyzed through the QFD, to the leadership management, and the improvement cycle continue.

Bibliography