



Innovative strategies for the quality development of educational sector Medan city, Indonesia

Samsul Bahri, Darwin Surbakti

University of Muslim Nusantara Al-Washliyah Medan, Indonesia

Abstract

Educational sector in the twenty first century is very challenging. It needs a continuous research and development of human resources and facilities. This research paper aims to find the model and the best strategy in adherence to the process and achieving the goals of education. Quality development management model in public and private high schools in Municipal of Medan, Indonesia were used as the subjects of this research. With the Research and Development (R&D) Methodology, the research activity initiated a phase of identification; then the development blueprint model and management strategy phases. Those processes were based on the development of quality in high school level. The results of quantitative analysis showed that simultaneous, R-square value of 0857 showed a significant effect of leadership principal (LP), school culture (SC) and teachers competency (TC) on the Quality of Education Processes (QEP). This Research and Development provides an innovative strategy and model that could serve as the basic concept for developing the educational system in the twentieth century challenges.

Keywords: innovative strategy, educational sector, challenges

Introduction

The human resources development in the twenty first century depends upon the adaptive action of educational sector. Every educational institution uses their services to develop learners' skills, encourage them to achieve high performances, and ensure they have to maintain a commitment to the goals (Zamroni, 2000) [20]. Nevertheless, this sector currently meets the uncertainty of global turn. As a result, the educational institutions need the research and development. In practice, school quality development occupies an important position in the management of educational institutions (Sallis, 2000; Palan, 2007) [8]. Thus, quality is a critical factor in achieving organizational goals (Suharsaputra, 2010) [15]. In short, human resources development relies on the future vision of the educational leaders (Yahaya, 2014; Howell & Avolio (1989) [19, 2].

Quality of the educational services which meets the needs of learners plays an important role in Municipal of Medan, Indonesia. The strategic position of Municipal of Medan in Southeast Asia makes the human resources development is very crucial; not only the prestigious of the city, but the job forces competitiveness in this region. Based on the aforementioned reasons, this research takes the management of educational institutions as the main concern of discussion. After 2000 the Municipal of Medan has managed the public schools and supervises the private ones (Indonesia Autonomy Law, No/32/1999). Municipal of Medan has the confidence to manage the senior high schools in a democratic way. School management depends on the ability of principals to make a responsive framework to achieve the efficient allocation of resources and to empower them in the decision-making process.

Human resources in the high school level are the public priority in the Municipal of Medan environment. Most of the

parents in this city expect the senior high schools provide the perfect training for intellectual ability, moral, faith, devotion, discipline, responsibility, breadth of knowledge of the learners (Spencer & Spencer, 1993) [13]. It indicates that school capacity to management educational process to make learners to be skillful, creative, and have the potential aspects developed (Sammons, *et al.*, 1995) [17]. On the other hand, in practice it is common to get HR education does not meet the minimal standards. To overcome the low standard quality of the public and private high schools in Municipal of Medan, this research and development (R & D) study sought the Quality Control Circle (QCC) to ensure the best practice of educational processes (Suhardan, 2006) [14]. With regard to the model and strategy development of quality management for public and private high schools, this research paper is expected to provide a model and strategy development management quality of education that can be applied effectively in Senior high schools.

Research Questions

An attempt to create an innovative strategy to improve the quality of educational processes in the public and private senior high schools of Municipal of Medan, Indonesia, this research and development study has the following research questions:

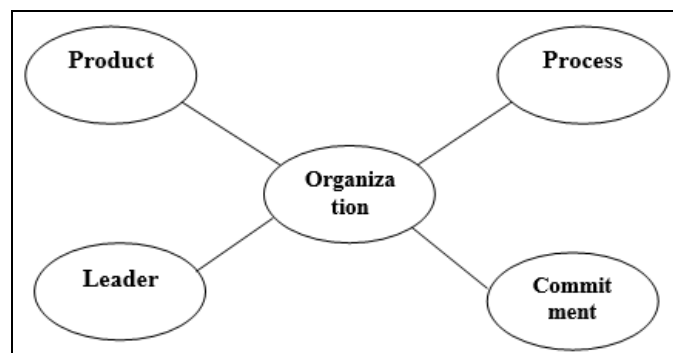
1. The school leadership, cultural organization and competitiveness the in public and private senior high schools in Municipal of Medan affect the quality. What are the resilience factors that affect the low quality of educational processes in the Municipal of Medan?
2. The relationship between school leadership, cultural organization and competitiveness significantly high. How do the schools develop teachers' capacities in the development quality management quality of education in

- public and private senior high schools in the Municipal of Medan?
3. The model and the best strategy in educational processes involve the leadership. How do the management model development objectives increase the quality of educational processes the in public and private senior high schools in the Municipal of Medan?

Theoretical Reviews

Defining Quality

Quality of educational processes involves many factors. Quality basically refers to the degree or level of excellence of a product (work / effort) in the form of goods and services, both tangible (real) or intangible (not real). In the context of understanding the quality of education, in this case study it refers to the process and educational outcomes. Measuring the quality of school is different from that of the quality of the organization in other forms. Quality of schools is geared to the needs (need), desire (want), and hope (expectation) that lead to students' satisfaction. The goals of the school have been to the establishment of quality of education. Schools probably have the goals to meet a superior standard. Creech (1996: 6) describes the quality management in five pillars of Total Quality Management (TQM):



Source: Creech, 1996: 6

Fig 1: Five Pillars of TQM

Further, the TQM programs must meet four criteria in order to achieve success in implementation. First, the program should be based on awareness of the importance of quality improvement in the production process. Second, the program must have a strong humanist nature to translate the importance of quality in the way employees are treated, enrolled and given inspiration. Third, it must be based on a decentralized approach that gives authority on all fronts, especially the front line, so an enthusiastic involvement and common objectives into reality. While all four criteria, must be applied thoroughly, so all vision and mission, principles, policies, strategies, and activities of the importance of quality improvement is achieved (Nasution, 2005)^[7].

Cultural Organization in Schools

In general, the application of the concept of organizational culture in schools is actually not much different from the application of the concept of organizational culture in other institutions. Even if there are differences may simply lie in the type of dominant value the development and characteristics of

supporters. With regard to the organizational culture at school, the commonly held beliefs of teachers, students, and principals affect the cultural organization (Usman, 1994; Sagala, 2003; Shannon & Bylsma, 2005; Satori, 2003)^[16, 9, 12, 11].

The value which is developed in a school cannot be separated from the existence of the school itself as an educational organization that have a role and function to develop, preserve and pass on cultural values to their students. Luthans & Schein (2002: 14)^[4] mentioned the characteristics of organizational culture in schools, namely (1) observed behavioral regularities; (2) Norms; (3) the predominant value; (4) philosophy; (5) rules; and (6) organization climate. These six characteristics describe the organizational culture in schools in a comprehensive way, and they commonly have been practiced every day at school. From the five aforementioned characteristics of this theory, the schools may apply it. The culture of an organization can be expressed as a representative of a form of group interaction and expectations of the group (Yukl, 2009)^[18]. Culture includes a number of key factors: norms, beliefs, values, standards, ritual, structure, nuance, and the type of interaction that is expected to occur within the organization. Culture is often assessed especially among organizations; this is to help realizing an institutional body to change for the better. Thus, Indonesia the meaning of culture is *Budaya* that derived from the plural form of Sanskrit culture (*Budaya*). It is the plural form of the mind, which means senses or anything related to the human mind. In the Latin, a word *Colere* (culture) refers working or processing. It defines culture as any human action to process or do something in accordance with the traditions and customs derived from education.

Competence

The term competence is a fusion of knowledge (cognitive), attitudes (power heart), and skills (physical power) which are realized in the form of deeds. In other words, competence is the combination of mastery of the knowledge, skills, values and attitudes are reflected in the habit of thinking and acting in implementing the tasks. British tradition implies at least three of the domains which apply the word competence, such as:

- a. Competency is being competent, ability (to do the work); it basically shows the competence of the skill or ability to do any work.
- b. Competent (adjective) refers to (person) having ability, power authority, skill, knowledge, etc. competence is fundamentally a trait (characteristics) people (competent) is the person who has the skills, power (ability), authority (authority), skills (skills), knowledge to do what is necessary.
- c. Competency is a rational satisfactory performance which meets the objectives for a desire condition. Competence was pointed out to the action (performance) rational being can achieve its goals satisfactorily based on the condition (precondition) is expected.

Thus, the competence of being owned by every teacher will show the actual quality of teachers (Ministry of Education and Culture, Indonesia, 2013). Meanwhile, competence according Ministry of Education and Culture, on regulation, no.045 / U / 2002 is "a set of intelligent action, the full responsibilities of a

person as a condition to be considered capable by the community in carrying out tasks in the field of a particular job".

Research and Development (R&D) Procedures

This research and development was conducted in some of public and private senior high schools in Municipal of Medan, Indonesia. The research subjects were the high school principals and teachers. Data required in this study were collected through questionnaires, interviews, observation and documentation. Data analysis was carried out according to the needs of research, namely through the both quantitative and qualitative analysis. Plan activities at each stage were as follows: The steps for this phase are: (1) identifying the main factors influencing the schools development of quality management based on the results of previous studies; (2) creating a research instrument a questionnaire associated with these major factors, as well as to test the validity and reliability of the instrument; (3) analyzing the data collected from the questionnaire for public and private high school in Medan; (4) probing the more in-depth data through a qualitative analysis by conducting interviews, observation and documentation related to the results obtained from the quantitative analysis; (5) analyzing the quality of public and private high schools based on the quantitative and qualitative analysis.

Results and Discussion

Results of preliminary research that has been done before by researchers, it was found that the school leadership, school culture, teacher competence has contributed to the development of quality high school in Municipal of Medan, Indonesia. Analysis of the results coupled with the theories of experts can be made a model of quality development strategy at senior high schools is in its implementation certainly need to consider factors other support in order to obtain optimal results. Model High School quality development strategy is expected to provide answers to the problems of systemic quality of education being faced by the nation. According to their characteristics, models and strategies could serve as the basic concepts of quality achievement and illustrates the circuit components are arranged neatly achievement. In this case, the model and the strategy has an important role in developing the theory because of his position as a basic concept that determined set of rules used to describe the system.

Model and this strategy is expected to be an inspiration to all who wish to create a high school quality by relying on improving school leadership, school culture and teacher competence. Model and this strategy are expected to give a

strong boost to schools that have limited instrument input. Wedge limited funding and advices are complete and all-round nice groove can be anticipated with some models of the development of quality high school offered. This model is possible to emphasize the importance of the role of school leadership is important to create a school culture and competence of qualified teachers. The study was conducted in 20 High Schools, which consists of 14 Public Schools and 6 Private Schools.

In this case, researchers have coordinated all research activities. It was carried out by members and surveyors of research at the University of Al-Washliyah Muslin Nusantara Medan in February 2015. The researchers also made a research instrument in the form of questionnaires and deepening method to test the model quantitatively in March 2015. In addition, the research instrument (a set of questionnaire) was administered at SMAN 15 Medan, to test the validity and reliability, in March 2015. After that, the researchers made a contact with all the principals or their representatives at the 14 Public and 6 Private High Schools in Municipal of Medan, Indonesia. The students here were the research samples that applied in March and April 2015. Then, the data processing (tabulation and analysis of data) using Structural Equation Model (SEM) to 20 principals and 100 teachers in 14 Public and 6 Private High Schools in Medan was based on the samples in April and May 2015. Once all the data collected, researchers conducted a discussion on the results of the quantitative calculation models and strategies for the development of the quality management of the school in May 2015.

Questionnaires were distributed to 20 principals and 100 teachers from the 14 public and 16 private High Schools in Municipal of Medan, Indonesia. All of returned questionnaires were processed according to the procedures specified early. Identification of the main factors that affect school management effectively was carried out with reference to the theory of the quality of schools identified into three main factors, namely: (1) Leadership Principal (X1), (2) Cultural organization of School (X2), and the Teacher Competency (X3) Thus, the overall identification of the main factors that influence the management of effective schools includes four variables and 23 indicators. Shaping the indicator model in this study was a reflection. A reflection model assumes that constructs or latent variables affecting the indicators (the direction of causality of constructs to indicators or manifest). Data obtained via a- in-depth qualitative analysis though a series of interviews, observation and documentation related to the results obtained from the quantitative analysis. Data analysis used SEM-PLS. The descriptive analysis and hypothesis testing are presented as follows:

Table 1: Factor Loading, Residual and Weights

Construct	Indicator	Mean	SD	Loading	Residual	Weight
X1	X1-1	16.387500	2.513225	0.859000	0.262200	0.191600
	X1-2	14.612500	3.123994	0.915600	0.161700	0.183000
	X1-3	15.587500	3.000817	0.858300	0.263200	0.174600
	X1-4	15.237500	2.673090	0.883000	0.220200	0.192600
	X1-5	14.837500	2.821454	0.940600	0.115200	0.181700
	X1-6	22.950000	3.568143	0.915800	0.161400	0.193200
X2	X2-1	20.187500	2.737890	0.860500	0.259500	0.370500

	X2-2	12.000000	1.653535	0.738800	0.454200	0.255000
	X2-3	16.837500	2.021678	0.749400	0.438300	0.264000
	X2-4	13.537500	3.022882	0.462200	0.786400	0.173800
	X2-5	15.350000	1.896699	0.800300	0.359500	0.268100
X3	X3-1	24.375000	3.369164	0.927400	0.139900	0.298400
	X3-2	11.987500	1.753793	0.859200	0.261800	0.295700
	X3-3	33.887500	3.845082	0.838600	0.296800	0.274600
	X3-4	25.375000	4.192745	0.822200	0.324000	0.290700
Y	Y-1	16.325000	2.499494	0.802800	0.355500	0.178500
	Y-2	25.437500	2.782603	0.697300	0.513800	0.131000
	Y-3	14.962500	2.420606	0.753000	0.433000	0.157000
	Y-4	16.837500	2.052746	0.724400	0.475300	0.149100
	Y-5	11.987500	1.865705	0.738900	0.454000	0.159300
	Y-6	14.987500	2.910017	0.857200	0.265200	0.185400
	Y-7	11.412500	1.860269	0.842900	0.289500	0.180600
	Y-8	11.775000	1.902530	0.725800	0.473300	0.151900

In general, the factor loading for each indicator was above 0.7 which indicating a high reflexive size of each indicator against its construct. Thus, this means that the size of the reflexive

indicators for each variable was already aligned with the constructs to be measured:

Table 2: Calculation of Structural Jack Knife Model

	Entire Sample estimate	Mean of Subsamples	Jack Knife estimate	Standard Error	T-Statistic	Standard Error (Adjusted)	T-Statistic (Adjusted)
X1->Y	0.4580	0.4580	0.4600	0.0868	5.2982	0.1228	3.7464
X2->Y	0.2340	0.2379	0.2379	0.0779	3.0542	0.1102	2.1596
X3->Y	0.3350	0.3345	0.3725	0.0780	4.7760	0.1103	3.3771

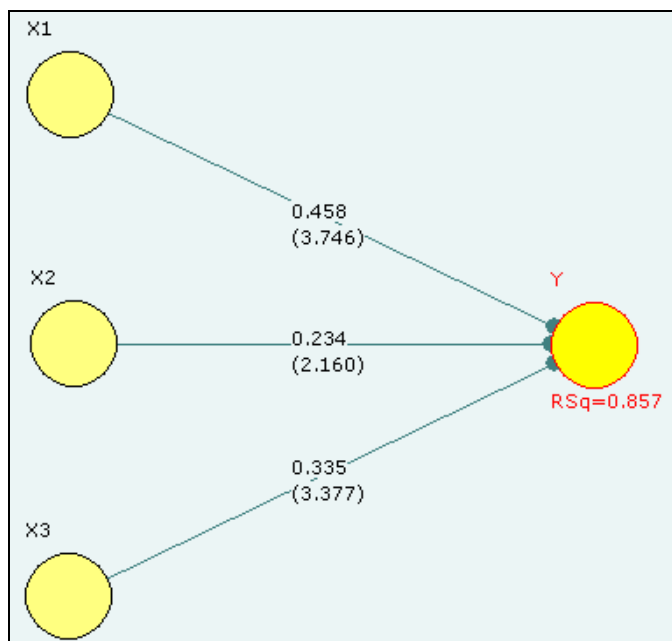


Fig 1

Simultaneously, R-square value of 0857 showed a significant effect of Leadership Principal, School Culture and Teachers Competency on the Quality School. Partial hypothesis testing showed that the Principal Leadership, Cultural Organization of School, and teacher competence have a significant influence on the school effectiveness.

The results of testing this hypothesis were used as a basis to probe deeper into the issues related to the main factors that affect the quality of schools in the public and private high

school in Municipal of Medan, Indonesia. The test results showed that the factor deeply Cultural Organization of School (X2) have the smallest effect on the quality of the school. This showed the school culture in public and private high school in Medan that has not been fully optimized. This model focused on the cultural organization factors in Schools that were in the next stage had been placed in the focus of the development model in developing the quality of public and private High Schools in Municipal of Medan, Indonesia. In the second phase the steps conducted; (1) development of a model and strategy development management of the quality of education in high school according to the results of quantitative and qualitative analysis; (2) analysis of theoretical models and management strategies development of quality education in high school; (3) refinement of the model and management strategy development of quality education in the early stages of high school; (4) application of the model is limited (in some Public and Private senior high schools); (5) the wider application of the model; and (6) the improvement of models and strategies advanced stage.

Conclusions

Based on the data analysis of Research on the Development (R&D) of the quality management public and private senior high schools in Medan City in the Models and Strategies to produce high quality of educational processes conclude as follow:

- a. Identification of the major factors affecting the development of quality management based on the results of previous studies high school leads to some factors; school leadership, cultural organization of school and teachers' competence.

- b. The results of quantitative analysis showed that simultaneous, R-square value of 0857 displayed a significant effect of leadership principal, cultural organization and teachers' competence on the quality of educational processes in schools. Partial hypothesis testing showed that the leadership principal, cultural organization and teachers' competence have a significant influence on the quality of educational processes in the observed schools of Municipal of Medan.
- c. The test results showed that the cultural organization of school (X2) factor had a low effect on the quality of schools. This showed that the cultural organization in public and private high schools in Medan had not been fully optimized.

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