RELATIONSHIP BETWEEN TOTAL QUALITY MANAGEMENT PRINCIPLES AND CULTURE OF TEACHING AND LEARNING IN IRANIAN SECONDARY SCHOOLS

By

MASOUMEH POUR RAJAB

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirement for the Degree of Doctor of Philosophy

December 2013
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DEDICATION

To My Father and Mother
Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

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By

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December 2013

Chairman: Ramli Basri, PhD
Faculty: Educational Studies

The present study was an attempt to explore relationship between the Total Quality Management (TQM) principles and Culture of Teaching and Learning (COTL) in 40 secondary schools in Lorestan province, located in west part of Iran. The study was also designed to determine the level of TQM and COTL in secondary schools. The researcher used a survey questionnaire to measure the variables among secondary school educators (n=320) and students (n=400) in Iran. Data were analyzed using descriptive statistics, Analysis of Variance (ANOVA), independent sample t-test, Pearson correlation, and multiple regressions. The results of this study showed that despite great effort made to implement TQM in Iranian secondary schools, the level of TQM and COTL is still at medium level based on students’ perception, but for principals’ and teachers’ perception, it is already at a high level. The level of TQM and level of COTL have a parallel relationship for principals, teachers and students, which mean by increasing in the level of TQM, the level of COTL will increase. The results also show that there is a strong relationship between character of role players (teachers, students, and parents) and COTL, and this means that teachers, students and parents have positive influence in improving the level of COTL. The strong relationship between character traits of role players and COTL showed that role players can improve the level of COTL. The study also finds that confidence in the status quo, lack of abilities to change, lack of communication, and lack of commitment as the factors of resistance to the implementation of TQM in schools. These major barriers to the implementation of TQM must be addressed by the educational advocators. The study proposed several potential recommendations to the Iranian Ministry of Education to overcome these barriers, and upgrade the level of Total Quality Management and Culture of Teaching and Learning in schools.
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

HUBUNGAN DI ANTARA JUMLAH PENGURUSAN KUALITI KEBUDAYAAN MENGAJAR DAN PEMBELAJARAN DI SEKOLAH MENEGAH IRAN

Oleh

MASOUMEH POUR RAJAB

Disember 2013

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Kajian ini adalah suatu percubaan untuk meneroka hubungan antara Pengurusan Kualiti Menyeluruh (TQM) prinsip dan Budaya Pengajaran dan Pembelajaran (COTL) di 40 buah sekolah menengah di wilayah Lorestan, Iran. Kajian ini juga bertujuan untuk menentukan tahap TQM dan COTL di sekolah. Penyelidik menggunakan instrumen soal selidik untuk mengukur pemboleh ubah dalam kalangan pendidik sekolah menengah (n= 320) dan pelajar (n = 400). Data yang diperoleh telah dianalisis dengan menggunakan statistik deskriptif, Analisis Varian (ANOVA), ujian t bebas, Korelasi Pearson dan regresi. Kajian mendapati, di sebalik usaha yang besar di lakukan untuk pelaksanaan TQM di sekolah menengah di Iran, namun tahap TQM dan COTL adalah masih di tahap sederhana bagi para pelajar. Manakala, ia berada di tahap tinggi bagi para pengetua dan guru-guru. Berdasarkan pandangan pengetua, guru-guru dan pelajar, kajian mendapati bahawa tahap TQM mempunyai hubungan selari dengan tahap COTL. Ini bermakna jika tahap TQM meningkat, tahap COTL juga meningkat. Kajian juga mendapati terdapat perhubungan yang kuat antara cirri-ciri watak pemain utama iaitu guru dan pelajar dengan tahap COTL. Ini bermakna guru dan pelajar mempunyai kesan yang positif terhadap COTL. Perhubungan yang kuat antara cirri-ciri watak pemain utama dan COTL bermakna peningkatan dalam cirri-ciri watak pemain utama akan diikuti oleh peningkatan COTL. Terdapat beberapa faktor rintangan kepada pelaksanaan TQM di sekolah-sekolah seperti keyakinan dalam status quo, kekurangan kebolehan untuk berubah, kekurangan komunikasi, dan kekurangan komitmen. Halangan utama bagi pelaksanaan TQM perlu diatasi oleh advokator pendidikan. Kajian mengusulkan beberapa cadangan yang berpotensi kepada Kementerian Pendidikan Iran bagi mengatasi halangan-halangan yang dihadapi dan juga untuk meningkatkan tahap Pengurusan Kualiti Menyeluruh (TQM) dan Budaya Pengajaran dan Pembelajaran (COTL).
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Most importantly, my deepest appreciation is extended to my parents for their prayers and support of my academic endeavors. Additional thanks go to my brothers, sisters, and friends who encouraged and supported me.
I certify that a Thesis Examination Committee has met on 6 December 2013 to conduct the final examination of Masoumeh Pour Rajab on her thesis entitled "Relationship between Total Quality Management Principles and Culture of Teaching and Learning in Iranian Secondary Schools" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>COTL</td>
<td>Culture of Teaching and Learning</td>
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<tr>
<td>TQM</td>
<td>Total Quality Management</td>
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<td>T&amp;L</td>
<td>Teaching and Learning</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<td>USA</td>
<td>United States of America</td>
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<td>UK</td>
<td>United Kingdom</td>
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<td>QC</td>
<td>Quality Control</td>
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<td>QA</td>
<td>Quality Assurance</td>
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<td>SPC</td>
<td>Statistical Process Control</td>
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CHAPTER 1

INTRODUCTION

1.1 Background

With the remarkable progress in technology, and particularly of Information Communication Technology (ICT), the world has entered the age of information accompanied by immense changes in industry and political fields. To keep abreast of all these developments, countries have to work hard to enhance the quality of human life and business; in addition, to achieve the goals, the quality of education should also be improved.

The purpose of the education system and school is to enhance the number of students who can fulfill or exceed the proficiency levels of academic achievement in efforts to continue producing students who are highly skillful and competitive in high-technology in the modern world (Pang & Pisapia, 2012). This necessity for change has been summarized by Burke (2010) in the following points:

- Change is needed because society is changing in many aspects.
- Change is needed because the expectations of the nation’s schools have changed.
- Schools have to change because the participants of the public schools have undergone dramatic changes.

If schools are seeking change, they should focus on understanding what students need to be successful in today’s and the future world (Comer & Gates, 2004). School must change or improve the structure and culture (Burke, Lake, & Paine, 2009). Achieving these changes requires the cooperation of the role players (principal, teachers, students, and parents) (Rampa, 2004). To achieve these goals, schools must improve the quality of education by applying some models like Total Quality Management (TQM) or similar quality models, and after that focus on improving the culture of teaching and learning (COTL). In this way, efficiency and effectiveness in schools can be enhanced (Cunningham, 2007).

TQM is a statistical process control that Edwards Deming originally developed it after World War II. First time TQM was introduced to the Japanese industrial leaders in order to improve the quality of products and services (Svensson & Klefsjo, 2006). TQM was not seriously applied by Americans until 1950 the Japanese accepted to renew their own business activities and industries in post after the war. TQM was managed for controlling the world markets around 1980. Meanwhile, in the 1980s, seeing the threat from the Japanese production, the USA manufacturers started to use TQM seriously. The USA companies eventually admitted that the assembly line
factory of 19th century, was not useful and required fundamental updates in the global competitive economic markets (Dheeraj, 2004). In fact, TQM is a comprehensive management philosophy. Basically there is a set of practices that focus on continuous improvement, satisfaction of the customers’ needs, and lowering rework. It also emphasis on the increased relationship and involvement of employees and especially the teamwork, the process of redesigning, competitive benchmarking, the outcomes’ measurement permanently, long-range thinking, solving the problems with teamwork, and closer ties with the suppliers (Yang, 2005).

Although TQM was originally designed for industry and manufacturing but not suitable for education, while many educators believed that the education system could also be applied, this model particularly for bringing educational reforms (Dheeraj, 2004). They learned that TQM models must be redesigned to fit the educational purposes in schools (Cunningham, 2007). While the process of reform is still going on, it is not easy to see how schools are dealing with the changes (Lukhwareni, 2002). A number of researchers in the field of education such as Bonstingl (1992; 1996), and Murgatroyd and Morgan (1993) report that TQM is attracting mounting interest among school staff. In education, some factors such as the budget reduction, the low level of the graduates’ knowledge and skills result in the fact that people and governments persist in extensive reconstruction or improvement of the quality of educational systems (Tong & Han, 2003).

The Iranian education system and education experts have always been looking for techniques and strategies to improve the quality of education and keep up with the world standards (Ministry of Education of the I.R. of Iran, 2008). They have been trying to increase the quality of education with improved students’ knowledge, continual school improvement efforts, and school benchmarking. In this way TQM came to the Iranian education system (Kamali, 2009).

The term culture of teaching and learning (COTL) defines as the attitude of educators (principals and teachers) and students towards teaching and learning (T&L), and involves the responsibility and commitment in a school. These arise through the joint attempt of principals, the teachers’ input, students’ characteristics, students’ family lifestyle, and the relevant and social factors on schools. The term attitude with regard to teaching and learning refers to the characters of principals, teachers and students, or their interest in the T&L activities in the classroom. This ‘attitude’, in other words, refers to the T&L climate in the school. It also mentions to the ‘mood’, ‘aura’, ‘commitment’ or ‘dedication’ with relation to T&L task. To sum up, the term COTL can be circumscribed as the T&L climate, attitude and commitment towards learning activities in a school and classroom which would encourage or facilitate T&L (Zulu, Urbani, Van der Merwe, & Van der Walt, 2004).
The Iranian education system of COTL refers to some factors such as school climate (ensuring secure and healthy environments), attitude of principals, teachers, students and parents about the T&L process. It also involves using new teaching techniques, responsibility and commitment of principals and teachers, involvement of teachers, students, and parents in school decision making, ensuring the availability of stationery, books, laboratories, and library, and establishing a culture of punctuality at school. In spite of the good intentions and concerted attempts to reconstruct the education system and improve the quality of education, the culture in schools did not improve as expected. Not well prepared principals and teachers, unpunctual principals, late-coming of teachers, using traditional teaching techniques, old school buildings, overcrowded classrooms, unmotivated teachers, and weak leadership are some negatives of COTL in Iranian schools (Behnamjam & Shahhossini, 2011; Hajforoush, 2011; Yazdkhasti, Khedmatkar, & Shayanfard, 2011). Therefore, the education system in Iran attempted to improve COTL in schools. These negative symptoms of COTL in schools, suggested the need for a different approach /strategy. In this regard TQM philosophy is proposed in this study to improve the COTL.

One of the purposes of COTL is to commit all principals and teachers to managing and continuously school improvement. In striving to improve COTL, collaborative efforts are required from role players including school management teams (principals), teachers, students, and parents (Rampa, 2010; Rampa, 2004).

Pool (2000) regards the collaborative efforts as synergistic elements in a creative process aimed at the transformation and continuous improvement of learning organizations. According to Pool (2000) the utilization of the TQM philosophy would be the most effective approach/strategy in this regard given its basic tenet of culture transformation and change toward continuous improvement and customer satisfaction. She argues, moreover, that TQM integrates quality in all functions throughout the organization and considers it essential every interaction between the various customers of the organization.

Steyn (1999) in his notion of collaborative effort, just like Pool, mentions that the culture of a school, the quality of education and the standard in quality COTL are crucial for national development and education. In this regard, he argues that TQM is a philosophy, more specifically a management philosophy that has transformed the products and processes of leading Japanese companies and ultimately resulting in service sectors. Epistemic interest (seeking for truth knowledge) arose to investigate a TQM philosophy for education with particular reference to its use in changing a school’s culture. Since culture is not static, role players can transform school culture in practice and attitudes because user-focused collegial culture provides sufficient condition for TQM to become reality (Holmes & McElwee, 2003). Chizmar (2000) supports this contention and also draws from TQM experts such as Juran (1989) and Crosby (1979) mentioning that the TQM of teaching and learning, focuses the
attention on those management functions that transform principals’, teachers’ and students’ and other role players’ cultures into effective and quality of teaching and learning culture.

Implied in this assumption is the notion that a school’s culture supports culture of teaching and learning initiatives and that all role players are willing to participate in the reconstruction, development and improvement of COTL and TQM philosophy has been suggested as an approach and paradigm to meeting and exceeding this initiative.

1.1.1 The Background Information of Iran

Iran is located in the Middle East with an area of 1,648,000 square kilometers. Iran with 77 million people and a growth rate of 1.08 percent, growth domestic production as measured by GDP of US$400 billion in 2008 (after Saudi Arabia), is the second largest economy in the Middle East. Tehran is the capital of Iran with a population of over 14 million. The Islamic Republic of Iran is a republic based on the ideals of the Islamic Revolution of 1979. The country’s social indicators have improved noticeably based on government’s efforts to increase access to education and health. Almost all children of the relevant age group enrolled into primary schools in 2008 while enrollment into secondary schools increased from 66% in 1955 to 80% in 2008 (Statistical Center of Iran, 2011).

1.1.2 The Education System in Iran

The education system in Iran is classified in two categories formal and informal. Formal education is divided into two parts, the first begins from pre-primary to the end of high school and the second one is higher education (Ministry of Education of the I.R. of Iran, 2008). Pre-Primary level is an optional level and parents may register their children for this. Primary level is the first formal stage for 6-10-year-old children and at the end of this level students can reach grade 5. Secondary level includes three-year level and this level is between the primary level and high school. This level also provides students with general education. High School Level lasts for three years. This level is divided into three branches: theoretical, technical and vocational branches. It is necessary for students to pass the one-year pre-university course if they wish to proceed to enter higher education (Ministry of Education of the I.R. of Iran, 2008).

In this study the researcher focuses on secondary schools because the secondary school level provide students with general education, and encourage them to think about the options for high school and university. This level is important because it is considered as a bridge between primary school and high school. In fact, in the
secondary school level, the education systems recognizes students’ interests and abilities, as well as prepares them the make decision in which branch of high school they intend to choose.

1.2 Problem Statement

Nowadays, the improvement of quality in some areas such as industry, manufacturing, health, and education is considered as a necessity (Jain, Sinha, & Sahney, 2011). In education, some factors such as the budget reduction, the low level of the graduates’ knowledge and skills have led to the need for people and governments to embark on extensive reconstruction or improvement of the education systems (Tong & Han, 2003). The Iranian education system is not an exception to these changes. Education experts have always been looking for techniques or strategies to improve the quality of education and keep up with the world standards (Ministry of Education of the I.R. of Iran, 2008).

One of the models for the improvement of quality is the TQM model, which focuses on customer satisfaction and continual improvement (Tong & Han, 2003). TQM was originally generated for businesses and other service industries. Some researchers like Rampa (2004) expressed the opinion that the adaptations of TQM can increase the quality of education. This model has been applied and proved successful in some countries such as USA (in Alaska, Florida, and California), South Africa, India, Oman, and Kenya (see Chapter Two).

Kamali (2009) in his study showed that some of the TQM principles applied in the education system of Iran include attention to new teaching techniques (problems solving and brainstorming), using classes with world standards, conducting correct evaluation methods, paying attention to teachers’ knowledge and motivation (all these four elements related to continuous improvement), training teachers before teaching, emphasizing in-service training of the teachers and principals (these two elements related to continuous training), employing team and group work in classes, organizing parents’ associations (these two elements related to team working), and focus on student-oriented system (customer satisfaction principle). Manochehrizadeh (2011) in her research showed that four principles of TQM are implemented in Iranian schools. These four principles are including continuous improvement, team working, continuous training, and customer satisfaction. She claimed that in schools which have TQM implemented, they can focus on some resources that lead to students’ satisfaction. Kamali (2009) said that although some or all of the points mentioned above have been applied in different educational regions in Iran, the influence of using all of these points has not been explicitly specified. Moreover, there is still lack of a comprehensive model that can cover all of those points. On the other hand Behnamjam and Shahhossini (2011), Hajforoush (2011), and Yazdkhasti, Khedmatkar, and Shayanfard (2011) in their studies mention that there are some problems in Iranian schools which they are related to COTL. These problems included not well prepared principals and teachers, unpunctual principals, late-coming of teachers, using traditional teaching techniques, old school buildings, overcrowded classrooms, unmotivated teachers, and weak leadership.
Since the education system in Iran has a central system which means all of the roles, recourses and instructions come out of the Ministry of education, thus each educational headquarters must follow the roles from MOE. It is obvious that all province and cities do not get the same resources and facilities, for example deprived areas receive less resources and facilities than developed or developing provinces. Therefore, in this study the researcher focuses on one deprived province (Lorestan province). Despite the many efforts to reconstruct the education system (i.e. to turn the old system into a new one) and change the school structure in Iran, such as changing the school-oriented system to a student-oriented system (Ministry of Education of the I.R. of Iran, 2008), and good intentions and attempts to implement TQM in secondary schools in Lorestan province (research population), TQM has not resulted in improvements to a high level as expected (Mirderikvand, 2007), and also the level of implementation of TQM in Lorestan province is different in each city. Furthermore, the effect of TQM on COTL in not clear in this province yet.

Having checked with different databases such as Pro-Quest, and Emerald, this researcher found very little literature focusing on the application of this model, especially in the province of Lorestan, Iran. Therefore, this area is still open for more research. Hence, the present study will attempt to determine whether or not TQM can be considered as a philosophy/model that could increase the level of COTL in secondary schools in Lorestan province of Iran, and define the effect of TQM on COTL in secondary schools in Lorestan province. In addition, the role of characteristic of principals, teachers, students, and parents on COTL will be investigated.

1.3 Objectives
The main purpose of this research is to study the relationship between TQM principles and COTL in Iranian secondary schools. Therefore, the objectives are to:

1. Determine the level of TQM implementation in schools.
2. Determine the level of COTL implementation in schools.
3. Investigate the relationship between the level of TQM implementation and the level of COTL in schools.
4. Determine the relationship between the character of role players and level of COTL.
5. Identify the resistance to implementation of TQM in school.

1.4 Research Questions
Research questions are the items that guide a study. According to the problems and objectives of this study, the research questions are:

1. What is the level of TQM based on principals’ perception?
2. What is the level of TQM based on teachers’ perception?
3. What is the level of TQM based on students’ perception?
4. Is there any significant difference between the level of TQM and location?
5. Is there any significant difference between the level of TQM and gender?
6. What is the level of COTL based on principals’ perception?
7. What is the level of COTL based on teachers’ perception?
8. What is the level of COTL based on students’ perception?
9. Is there any significant difference between the level of COTL and location?
10. Is there any significant difference between the level of COTL and gender?
11. Is there any statistically significant relationship between the level of TQM and the level of COTL in schools?
12. Is there any statistically significant relationship between the character of role players and level of COTL?
13. Is there any resistance to implementation of TQM in Iranian schools?
14. Is there any significant difference in resistance to implementation of TQM according to gender?
15. Is there any significant difference in resistance to implementation of TQM according to years of experience?

1.5 Significance of the Study

Today, it is necessary to improve the quality of health, education, industry and production. Regarding the ideas mentioned in the problem statement (budget reduction, reduced quality of learners’ knowledge and skills, weak students, ignoring the student’s examination skills, school dropouts and failures and unmotivated teachers, etc.) in the realm of education, people or governments who are committed to renewing or improving the education system should pay more attention to quality. Some of this attention can be spotted in the world attitudes toward self-regularizing schools management, increasing teaching hours, and valuing the principals’ creativity. In these situations, the management of scholars in education regarding the concepts of TQM, with some minor changes, should be a major tool for reconstructing the education system. In practice, the application of TQM models may have considerable effects on COTL.

The implementation of the TQM principles is one of the models to achieve the quality of education. Success in implementation of TQM to improve the quality of education and increase students’ satisfaction is one of the main priorities of the education system. If schools implement the TQM principles, they will achieve the high level of quality in schools. The study of implementation of the TQM principles and COTL is important for several reasons.

First, in the past decades many researchers have been conducted in the implementation of TQM in industry, business, higher education, and schools specifically in USA and western countries. But few researches have attempted to investigate the relationship between implementation of the TQM and the COTL. In Iran, despite the various need to investigate the relationship between these two variables, few researches have been reported on the education system. The results of
this study can fill this gap and provide enough empirical findings for the education system in Iran.

Second, this study provides information pertaining to instruments and methodologies attached to TQM models. The translation and use of both TQM and COTL questionnaires for educators and students into Persian (Farsi language) will help future researchers to establish, investigate, and transfer of the knowledge in this regard into schools, and lead them to improve the quality of education in Iran.

Third, the current study helps the educational administrators, principals, teachers and parents to play an effective role in improvement of the quality of education. Lastly, the findings of this study can provide some suggestions and recommendations for the Ministry of Education (MOE) in Iran, and more information for implementation of TQM for schools. The results of the present research can reflect the significance of the study.

1.6 Assumptions of the Study
In this study the researcher used self-reporting questionnaires to collect data from participants. Regardless to whatever the respondents answer to the questions, there is a threat in the methodological work on survey study, as their answers are the part of the survey research. Therefore, in performing this research, some assumptions should be considered.

Firstly, participants appreciate the TQM and COTL questionnaires and respond objectively and honestly. To meet this assumption, the questionnaires were anonymous to encourage greater honestly of respondents. Secondly, both questionnaires are applicable to schools in Iran. These two survey questionnaires have been utilized by researchers in various schools in the world to measure TQM and COTL.

1.7 Limitations of the Study
This is a study on the application of TQM in Iranian secondary schools. It investigates both the feasibility of creating a change in the management approach (known as TQM) and its procedures according to the TQM literature review regarding the existing problems that arose from the pilot study, the data analysis of the main study, and the suggestions given by the participants.

There are, of course, some limitations. The main constraint to this research is that it will be performed in Iran, and the researcher studies in Malaysia. Although this is somehow a strength as it allows the development of a model of TQM to meet the
requirements of the MOE in Iran and schools, it would be interesting to know whether similar results can be obtained if it is administered in other countries such as the United Kingdom and other countries in the Middle East facing the same issues as Iran does. In this model, it is required that the teachers be ready to welcome changes in their methods of teaching and presenting course materials through innovative methodology, so schools should act cautiously, especially when adapting industry models to their specific situation (Rampa, 2004).

This study investigated the relationship between two variables (TQM and COTL) as perceived by principals, teachers, and students. The research was conducted in secondary schools in Iran’s Lorestan province. Therefore, the results cannot be generalized to elementary schools, high schools or universities. The research was performed in four different cities, so the other six cities in Lorestan province did not participate in this study because of time and monetary constraints.

Another limitation of this study is related to validity of the instrument. In this study, the researcher conducted content validity. Therefore, it suggested that, future researchers address other aspects of validity.

1.8 Definition of Terms

1.8.1 Total Quality Management (TQM)
A part of management philosophy is TQM, it is a set of principles that emphasize on continues improvement, considering and satisfying the customers’ needs, and decreasing rework. It also emphasizing on increasing employees’ involvement and teamwork, process redesign, competitive benchmarking, constant measurement of the results, long-range thinking, continuous training, and solving the problems based on teamwork, and closer relationship with the suppliers (Yang, 2005). In this research, TQM refers to customer satisfaction, continuous improvement and training, and teamwork. It is measured based on Likert scale items in the research instruments, questionnaire A and B, section TQM questionnaire, parts C₁ and C₂ for principals, teachers and students.

1.8.2 Culture of Teaching and Learning (COTL)
Chisholm and Vally (1996) and Smith and Schalekamp (1997) refer to the culture of teaching and learning (COTL) as positive COTL. Pool (2000), Kato (2001), Fullan and Ballew (2001), Marlow (2002) and Oakland (2003) use the “culture change” and “improvement of school and quality culture” when referring to positive COTL. Kruger (2003) claimed that the concept of a culture of learning and teaching in general refers to the attitude of all the role players toward teaching and learning and
the presence of quality teaching and learning processes in schools. In this study, COTL refers to attitude of principals, teachers, students and parents about the T&L process, school environment and school process. It is measured based on Likert scale items in the research instruments, questionnaire A and B, section COTL questionnaire, part B of each questionnaire.

1.8.3 Resistance to Change
Resistance to change is defined as a tendency to maintain the status quo when pressure is applied to bring about change in the organization (Rampa, 2004). Most of the reasons for resistance to change in this study are poor communication (Ncube & Kajengo, 2000), unwavering confidence in the status quo, lack of knowledge about change, lack of abilities to change, and lack of commitment. It is measured based on Likert scale items in questionnaire A, section TQM questionnaire, part C.

1.8.4 Role Players in School
There is a requirement of all role players including school management teams (principals), teachers, students, and parents to improve COTL (Rampa, 2010; Rampa, 2004). In this study, role players refer to principals, teachers, students and parents. Van Deventer and Kruger (2003) stated that schools with COTL present some characteristics such as an attractive classroom climate, teachers who are committed to teaching, students are involved in T&L activities, order and discipline prevail, good relationship exists between school staff and students, effective management, and teams work in school and classroom. Subsequently, the necessary infrastructure and facilities are in place and neat and safe for T&L. Lastly, principals and teachers maintain high professional standards. The effect of role players on COTL is measured by Questionnaires A and B, section COTL questionnaire, Parts B, B, B, and B.

1.9 Summary
As a general term in this chapter, TQM is explained according to the explanation given for TQM in education. In fact, TQM was originally intended for the industrial sector, many educators believe that TQM can apply in education system. Many countries such as UK, Canada, South Africa, and the USA applied TQM in their education system.

The Iranian education system and education experts have always been looking for techniques and strategies to improve the quality of education and keep up with the world standards. They have been trying to increase the quality of education with improved students’ knowledge, continual school improvement efforts, and school benchmarking. In this way TQM came to the Iranian education system.
The main objective of this research is to study the relationship between TQM principles and COTL in Iranian secondary schools. In more specific, the study was aimed: (1) to determine the level of TQM implementation in schools, (2) to determine the level of COTL implementation in schools, (3) to investigate the relationship between the level of TQM implementation and the level of COTL in schools, (4) to determine the relationship between the character of role players and level of COTL, and (5) to identify the resistance to implementation of TQM in school. The previous researches will be summarized and reviewed in the Chapter Two.
REFERENCES


Bonstingl, J. J. (1992). *Schools of Quality: An Introduction to Total Quality Management in Education: Association for Supervision and Curriculum...*


Chisholm, L., & Vally, S. (1996). *The culture of learning and teaching in Gauteng schools: report of the Committee on the culture of learning and teaching.* Education Policy Unit, University of the Witwatersrand.


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Marlow, L. (2002). The art of leadership: leadership skills are all about instilling a culture of oneness and innovation among staff. Journal of Banking and Financial Services, 116(1).


