TOTAL QUALITY MANAGEMENT: THE PATHWAY TO QUALITY RESEARCH SUPERVISION OF THE POSTGRADUATE DIPLOMA IN EDUCATION PROGRAMME AT THE ZIMBABWE OPEN UNIVERSITY

Tichaona Mapolisa

Educational Management at the Zimbabwe Open University

Augustine Kudakwashe Mubika

Zimbabwe Open University: Department of Education

ABSTRACT

The study dealt with the degree to which Total Quality Management (TQM) could be the pathway to quality research supervision of the Postgraduate Diploma in Education programme at the Zimbabwe Open University (ZOU). It is a qualitative study that purposively sampled its research participants who responded to questions that were raised using an open-ended interview. The study found out quality was about meeting customer's expectations. TQM was perceived as a means of conforming to Postgraduate Diploma in Education students' research supervision defined needs. TQM involves every member of the university in the pursuit of effective research supervision process. TQM empowers everyone in the research supervision business. TQM was found to be not easily understood, time taxing and laborious. The study recommended the need to train all university staff in research methodology, including hypothesis testing and Information and Communication Technology (ICT). It further recommended for the need for universities to twin, and send deserving due staff to contact and sabbatical leaves for the purposes of learning good and bad practices from other universities.

INTRODUCTION

Research supervision is one area that quality sometimes unconsciously evades in the assessment of students' work in teacher education and beyond. Research supervision is one of the most critical processes in the production of knowledge producers in knowledge societies like Zimbabwe. The quality of students' research work is a result of quality supervision by the tutor or lecturer (Pearce, 2005). The current practice is that a student is attached to one supervisor who is allocated by the Regional Programme Co-ordinators (RPCs). The thrust of this paper is to unravel the possibilities

of Total Quality Management (TQM) in the promotion of quality research supervision of the Postgraduate Diploma in Education (PGDE) students at the Zimbabwe Open University (ZOU).

BACKGROUND TO THE STUDY

Research supervision quality is one of the contentious issues in the pursuit of quality education in higher education (Berg, 2006). Serious providers of university education cannot talk about quality education without mentioning total quality management (Mapolisa and Mafa, 2012). Every student and tutor has had experiences of either good or poor quality when dealing with research supervision (Mapolisa *et al.*, 2010); (Mapolisa and Mafa, 2012). The experience of poor quality research supervision is exacerbated when tutors are not either empowered to correct quality inadequacies or do not appear willing to do so (Mafa and Mapolisa, 2012). Successful universities understand the powerful impact lecturer-defined quality can have on academic research work. For this reason, many universities world over are continuously grappling with ways and means of continually increase their quality standards. Although many universities have been leaders in implementing high quality standards in terms of research supervision, they believe that student satisfaction through lecturer empowerment is still what matters most (Mapolisa, 2012). The preceding findings indicate that quality is considered to be a critical factor in enhancing quality research outputs and outcomes. They however do not point out the degree to which total quality management could be accommodated in the inevitable pursuit of offering quality education in universities. They also do not zero in on how Open and Distance Learning institutions could employ total quality management in promoting quality research supervision. It was in view of such observations that the present study examines the extent to which total quality management could be the pathway to quality research supervision of the Postgraduate Diploma in Education programme at the Zimbabwe Open University.

Statement of the Problem

Quality research supervision is seemingly an elusive process in contemporary universities. The academic fame and credibility of universities is measured by the quality of research output and outcomes by students and lecturers. The focus of this study was presumably covered by enquiring the following research question:

> How well does total quality management become the pathway to quality research supervision of the Postgraduate Diploma in Education programme at the Zimbabwe Open University?

Sub-problems

The subsequent sub-problems guided the focus of the study.

- How is total quality management viewed in terms of Postgraduate research project supervision in ODL institutions?

- To what extent is total quality management applied in Postgraduate research project supervision at the Zimbabwe Open University?

- What are the meritocratic and utilitarian values of total quality management in Postgraduate research project supervision in ODL situations?

- What are the theoretical and practical underpinnings of total quality management in Postgraduate research project supervision in ODL organisations?

- How can the challenges to total quality management in Postgraduate research project supervision be watered down in the ODL contexts?

- How best could total quality management in Postgraduate research project supervision be promoted in ODL settings?

Significance of the Study

Today's learners in a competitive university environment usually demand and expect qualifications of high quality. Quality research project supervision is by no means a small measure in regard to the hall marks of total quality management in higher education. The conduct of the current study is valuable on the grounds that it conscientises higher education managers, policy makers, chief executives and lecturers/tutors on the need to meet and exceed client expectations by involving everyone in the organisation's quality research provision business through an integrated effort. The on-going study could one of the motivators for tutors/lecturers who supervise students to realise the need for them to be better and more researched than their students if ever the goals of total quality management are to be accomplished. As a result of an exposure of lecturers/ tutors to total quality management in research project supervision, students are bound to benefit a great deal from the supervisors' research expertise. Also, the current study would equip higher education personnel in the universities with the necessary information that would help them to employ some of the best practices in research supervision of Postgraduate research project students that comes as a consequent upon getting them through the mill of total quality management.

Literature Review

The study reviews the concept of total quality management after conceptualising quality so as to provide guidance to this study.

CONCEPTUAL REFLECTIONS

Quality

Literature (Evans and William, 1999; Kitazawa and Sakis, 2000) confirms that quality is a concept that is not easy to define. Quality is viewed to "performance to standards" (Goetsch and Stanley, 1995). It is also viewed as "meeting the customer's needs" or "satisfying the customer" (Garvin, 1988). Crosby (1984) quality in regard to conformity to specifications measures how well a product or service meets the target and tolerance determined by its designers. In terms of the value paid, quality is defined in terms of product or service usefulness for the price paid (Hall, 1987). In the

context of support services, quality is defined as the support provided after the product or service is purchased (Juran, 1988). The forgone definitions of quality appear to be focusing on general business. They are not tailored to the specific research needs of Postgraduate research students in ODL settings such as the ZOU. While the definitions of quality seem general, they somehow tend to be pertinent in this study. It was in this light that we carried out this study to analyse the applicability of the concept of quality in research supervision of Postgraduate research students at the ZOU.

Total Quality Management

Total quality management is an integrated effort designed to improve quality performance at every level of the organisation (Juran, 1988). It is also perceived as meeting quality expectations as defined by the customer (Kitazawa and Sakis, 2000). In this regard, it is called customer-defined quality (Hall, 1987). The primary goal of total quality management is to achieve customer satisfaction. The concept of total quality management is best summarised by Table 1 below.

THE EVOLUTION OF TOTAL QUALITY MANAGEMENT

Figure-1. Timeline showing the differences between old and new concepts of quality

TIME:	Early 1900s	1940s	1960s	1980s and beyond
FOCUS:	Inspection	Statistical sampling	Organisational Quality focus	Customer driven focus

Old concept of quality:
Inspect for quality after production

New Concept of Quality :
Build quality into the process. Identify and correct causes of quality problems

Inherent in the preceding definitions of total quality management are the following benefits of total quality management.

- Total quality management (TQM) is about the philosophy of employee empowerment. It seeks to empower all employees to seek out quality problems and correct them.
- TQM benchmarks performance in organisations. It is another way by which companies implement continuous improvement by studying business practices of companies considered "best in class."
- TQM places a great deal of responsibility on all workers.
- TQM attempts to embed quality in every aspect of the organisation.
- TQM stresses team approach in that quality in an organisational effort. To facilitate solving quality problems, it places great emphasis on teamwork. The use of teams is based on the old adage that "two heads are better than one." It uses quality circles comprising teams of volunteer production employees and their supervisor who meet regularly to solve quality problems.

The above definitions of TQM seem to be confined to the operations of general business organisations. They managed to highlight the benefits of TQM in organisations. They were however not clear on the challenges of TQM. Furthermore, they did not relate the application of TQM to research project supervision in ODL settings. It was in the interests of this study that we find out how well TQM could be administered in enhancing quality Postgraduate research project supervision at the ZOU.

Quality Research Project Supervision

Quality research project supervision refers to the meaningful guidance that is provided by the tutor to the research student (Potter, 2006; Creswell, 2008). It is also viewed as helpful research direction that is given to research candidates by their supervisors (Bassey, 2000; Pearce, 2005). Mapolisa (2012) and Mafa and Mapolisa (2012) concur that the concept of quality research supervision entails all processes that are meant to groom research candidates by their research supervisors. The preceding views of research supervision tend to agree on the issue that the quality of research students produce is dependent on the quality of supervision they get from their research supervisors. The same definitions of research supervision are somehow inadequate regarding the issue of how TQM could be employed in enhancing quality Postgraduate research project supervision at the ZOU. This gap in practice was incentive enough on our part to carry out this study with the sole intent to assess how TQM could be effectuated in facilitating quality Postgraduate research project supervision at the ZOU.

METHODOLOGY

This present qualitative study case studied purposely sampled RPCs and part time tutors in order to find out research supervision processes they carry out in search of TQM. Qualitative study is useful for the conduct of this study because knowledge about the phenomenon under study is not out there, but it is with the people (Kumar, 2008; Gray, 2009). A purposive sample is used in this study because it is a qualitative non-probability sample which is usually consistent with the needs of research studies (Cohen and Manion, 2002). The study made use of 20 Regional Programme Co-ordinators (two per Regional Centre) and 40 part-time tutors (four per Regional Centre). In-depth interviews gathered dense data from the research participants. In-depth studies have the capacity to gather lots of rich research data from the research participants because of their open-ended nature (Seale, 2006; Silverman, 2006). All research participants would answer same questions so as to obtain consistent research data regarding how TQM could be implemented in promoting quality Postgraduate research project supervision at the ZOU. The research data was qualitative, thus, it enabled us to rely on words for their presentation. For demographic data of the research participants however, tables would be used to present them, thus, giving way to data analysis and discussion. The data would be sorted and coded so as to fleece themes that enable descriptive and analytical narratives (Thomas and Nelson, 2001).

Research Findings

The presentation and discussion of research findings were done in two ways. The presentation of demographic data of the research participants was done prior to the interpretation of the research findings.

Demographic Data

This section covers research characteristics of the research participants who were interviewed using an in-depth interview schedule. Such characteristics include research participants' gender, age, professional qualification, and professional experience in ODL settings, professional status and research supervision experience.

Demographic Data

Table-1. Distribution of research participants by gender (N=60)

Variable- Gender	Frequency	Frequency (%)
Male	42	70
Female	18	30
Total	60	100

The scenario in Table 1 shows the distribution of research participants by gender. Most of the research participants (70%) were male, while 30 % of them were female. While the difference appears to be great in terms of number of male and female research participants, it seems that the views of total quality management in research supervision will somehow be gender sensitive, albeit a small sample that characterises a qualitative case study.

Table-2. Distribution of research participants by age (N=60)

Variable- Age in Years	Frequency	Frequency (%)
41-50 years	28	47
51-60 years	21	35
61+ years	11	18
Total	60	100

The presentation in Table 2 reveals the age ranges of the research participants. Forty-seven percent of the research participants were aged between 41 and 50, while 35 % of them were aged between 51 and 60. Eighteen percent of the research participants were aged at least 61 years. To a large measure, most of the research participants appeared to be middle aged.

Table-3. Distribution of research participants by professional qualification (N=60)

Variable	Frequency	Frequency (%)
PhD	2	3
Med	58	97
Total	60	100

The distribution in Table 3 portrays a picture of the degree to which the research participants were qualified for their job. Ninty-seven percent of the research participants were holders of a Master of Education degree, that is, a minimum entry qualification for lectureship. Three percent of the research participants were holders of a Philosophy Degree in Education. The results show that the research participants were qualified enough to conceptualise total quality management in research supervision.

Table-4. Distribution of research participants by professional status (N=60)

Variable	Frequency	Frequency (%)
Doctor and Senior Lecturer	2	3
Senior Lecturer	2	3
Lecturer (Regional Programme Co-ordinator)	20	34
Part-time Tutor	36	60
Total	60	100

Table 4 highlights the distribution of research participants by professional status. Three percent of them were Doctors and Senior Lecturers, and Senior Lecturers (Non-PhD holders) apiece. Thirty-four percent were Lecturers (Regional Programme Co-ordinators) and 60 % of them were part-time tutors. The results seem to indicate that more research supervision is carried out by part-time tutors, hence, the need to expose them to Total Quality Management in research supervision.

Table-5. Distribution of research participants by teaching experience in ODL settings (N=60)

Variable	Frequency	Frequency (%)
0-9 years	33	55
10+ years	27	45
Total	60	100

The trend in Table 5 depicts the level of the research participants' teaching experience. Fifty-five percent of them had a teaching experience ranging from zero (0) to nine (9) years, while 45 % of them had a teaching experience of at least 10 years. The scenario in Table 5 is indicative of the fact that more supervisors seem to be either experienced or learning the ropes of Total Quality Management in research supervision.

Table-6. Distribution of research participants by research supervision experience in ODL settings (N=60)

Variable	Frequency	Frequency (%)
0-9 years	15	25
10+ years	45	75
Total	60	100

In terms of research participants by research supervision experience in ODL settings, Table 6 displays a situation whereby 75 % of the research participants were experienced enough in the area of research supervision, while 25 % of them were rookies in research supervision.

Table-7: Distribution of research participants by Department at the ZOU (N=60)

Variable	Frequency	Frequency (%)
Educational Studies	36	60
Teacher Development	24	40
Total	60	100

Table 7 exhibits a scenario in which 60 % of the research participants belong to the Department of Educational Studies, while 40 % of them were members of the Department of Teacher Development.

Actual Research Findings

The study's actual research findings were anchored on the following six research questions.

- How is total quality management viewed in terms of Postgraduate research project supervision in ODL institutions?
- To what extent is total quality management applied in Postgraduate research project supervision at the Zimbabwe Open University?
- What are the meritocratic and utilitarian values of total quality management in Postgraduate research project supervision in ODL situations?
- What are the theoretical and practical underpinnings of total quality management in Postgraduate research project supervision in ODL organisations?
- How can the challenges to total quality management in Postgraduate research project supervision be watered down in the ODL contexts?
- How best could total quality management in Postgraduate research project supervision be promoted in ODL settings?
- Total quality management is an integrated effort designed to improve quality performance at every level of the organisation (Juran, 1988). It is also perceived as meeting quality expectations as defined by the customer (Kitazawa and Sakis, 2000). In this regard, it is called customer-defined quality (Hall, 1987). The primary goal of total quality management is to achieve customer satisfaction. The customer in the context of ZOU is the PGDE research student who is viewed as a king.

Perceptions of Quality in Terms of Postgraduate Diploma in Education Research Project Supervision in Odl Institutions

The study managed to come up with a host of research participants' perceptions of quality in Postgraduate Diploma in Education research project supervision in the context of ODL institutions like the ZOU. Some of the most featuring of perceptions quality are presented below.

- Quality is a about doing the things as expected in research supervision.
- Quality is conforming to the standards set for research supervision.
- Quality is meeting students' expectations in research supervision.
- Quality is all about complying with criteria to indicate success in research supervision.
- Quality means working to meet set benchmarks in research supervision.
- Quality is defining the grade of research product as a result of research supervision.

The above findings are consistent with earlier findings by (Crosby, 1984; Hall, 1987; Garvin, 1988; Juran, 1988; Goetsch and Stanley, 1995) who concur that quality is viewed to "performance to standards", "meeting the customer's needs" or "satisfying the customer", and quality is defined in terms of product or service usefulness for the price paid. In the context of support services, quality is defined as the support provided after the product or service is purchased (Juran, 1988). We perceive quality as a process of providing support before and after research supervision to encourage total academic growth in the Postgraduate Diploma in Education research students. TQM is customer defined standards of work; in this case, it is student defined standards of research supervision.

The Extent to Which Tqm Is Applied In Postgraduate Diploma in Education Research Project Supervision at the Zou

TQM is a concept and practice that serious and committed organisations cannot afford to ignore in their quest for quality provision of service. In their open-ended responses about the degree to which TQM obtains in Postgraduate Diploma in Education research supervision at the ZOU, research participants surmised the following scenarios.

- ZOU now has a Higher Degrees unit.
- All the four Faculties are quite serious about the quality of their research products.
- Departments define specific standards for research supervision particular to the programmes they offer.
- ZOU has a Research and Scholarship Unit which co-ordinates institution-wide research activities.
- Regional Centres work hand in hand with the National Centre to scheme research project supervision modus operandi.

These research results are unique in that they largely conform to the concerns of TQM that Juran (1988) perceived to be associated with ensuring the existence of quality work obtaining at every level of the organisation. In the context of ZOU, the student is the most important stakeholder. Every unit of ZOU tries its level best to give its big heart in meeting student defined service in research supervision. Students and research supervisors are collaborative partners in ensuring that TQM in research supervision does not fake gestation. All units of ZOU and the students try their level best to ensure that research supervision conceives desired results by committing themselves to the process. Deadlines are set by the Faculties and communicated to other units of the university in order to garner for support and collective commitment. In that regard, TQM could be largely be a pathway to quality research supervision of the Postgraduate Diploma in Education students.

Meritocratic and Utilitarian Values of Tqm In Postgraduate Diploma In Ducation Research Supervision

The research participants came up with a number of opinions regarding some of the meritocratic and utilitarian values of TQM in postgraduate research supervision. Prominent among such benefits were:

- TQM subsumes team leadership, team spirit, team work and communal work among members of an organisation. All organisational members regardless of their status work in unison in order to achieve set goals with regards to quality research supervision at PGDE level.
- TQM embeddes an immeasurable desire to achieve set goals in line with PGDE research supervision.
- TQM empowers lecturers, students and university managers in the field of research supervision.

The above values of TQM places student at the centre stage of the university business. The student benefits most from well structured and co-ordinated research supervision. In this regard, all sections of the university work in the best interests of the student by supporting research supervision business such that TQM could be a pathway to quality research supervision for Postgraduate Diploma in Education students.

Theoretical and Practical Underpinnings of Tqm in Postgraduate in Eduication Research Supervision

In spite of the afore-mentioned benefits of TQM in research supervision, there are theoretical and practical underpinnings of TQM in postgraduate research supervision. The research participants indicated that TQM is not a very well known concept among lecturers and their managers. It is viewed as a process that may expose some research supervisors' weaknesses.TQM is viewed as an expensive business. It is also perceived as an involving process. Therefore, it is assumed to be laborious and time taxing in the research supervision process. In this way, such impediments tend to undermine all efforts that could make TQM a pathway to quality research supervision of Postgraduate Diploma in Education students.

Scaling Down Challenges of Tqm in Postgraduate Research Supervision as a Means of Promoting of Tqm in Postgraduate Research Supervision

TQM is an area which promotes effective supervision of which scaling down of challenges of TQM in postgraduate research supervision is not an option. Training and staff development of personnel in TQM is a vehicle for student defined needs in research supervision. Academic staff could be attached to twin universities in the region and beyond so as to learn good and bad practices in research supervision. Exposure of staff to intensive Information and Communication Technologies (ICT) and rigorous training in research methodology and hypothesis testing were found to among the driving processes of proper and successful research supervision practices.

Summary and Conclusions

The study found out that quality is meeting customer expectations, thus, TQM in the context of this study is all about meeting student needs during research supervision. The study also revealed that TQM is a business of all levels of personnel in the pursuit of research supervision that caters for the needs of Postgraduate students. The study went on to highlight that TQM empowers all parties

involved in research supervision of the university Postgraduate students. On the less laudable side, the study hinted that TQM is rather a novel and not so easily understood process in the context of research supervision in the context of ODL settings.

RECOMMENDATIONS

We recommended the following:

- training all staff in TQM in the manner it should be applied to in research supervision at Postgraduate level,
- giving and approving all due and deserving academic staff their contact and sabbatical leave opportunities so that they could exchange research supervision ideas with what obtains in other universities,
- twinning of universities locally, regionally and internationally so as to facilitate staff exchange programmes with the intent to enable them to learn from good and bad practices of research supervision for the benefit of their home universities,
- involving all stakeholders in the mobilisation of resources to support the implementation of TQM in the pursuit of a desired research supervision process, and
- spreading research of TQM in connection with Postgraduate research supervision to other universities for the purposes of comparability.

REFERENCES

Bassey, M., 2000. Case study research in educational settings. Buckingham: Open University Press.

Berg, L., 2006. Qualitative research methods for social sciences (6th edition). Needham Heights,MA.

Cohen, L. and L. Manion, 2002. Research methods in education. 6th Edn., London: Methuen.

Creswell, J.W., 2008. Research design: Qualitative, quantitative, and mixed methods. London: Sage publications.

Crosby, P., 1984. Total quality management. London: Prentice Hall.

Evans, J.R. and M.L. William, 1999. The management and control of quality. London: Prentice Hall.

Garvin, D.A., 1988. Managing quality: The strategic and competitive edge. London: Prentice Hall.

Goetsch, D.L. and D. Stanley, 1995. Implementing total quality. London: Prentice Hall.

Gray, D.E., 2009. Doing research in the real world. 2nd Edn., London: Sage Publications.

Hall, G.A., 1987. Quality management. London: Prentice Hall.

Juran, J.M., 1988. Quality control handbook. 4th Edn., London: Prentice Hall.

Kitazawa, K. and R. Sakis, 2000. The mediating role of ems to hr factors and perceived environmental performance. Journal of Applied Business Research, 23(1): 1-16.

Kumar, R., 2008. Research methodology: A step-by-step for beginners. 2nd Edn., New Delhi: Pearson Education.

Mafa, O. and T. Mapolisa, 2012. Supervisors' experiences in supervising postgraduate education students' dissertation and theses. Journal of Asian Social Science, 2(2): 1685-1697.

Mapolisa, T., 2012. Provision of research support services to odl learners by tutors: A focus on the zimbabwe open university's bachelor of education research students' supervision experiences. Turkish Online Journal of Distance Education-TOJDE, 13(2): 1302-6488.

Mapolisa, T. and O. Mafa, 2012. Challenges being experienced by undergraduate students in conducting research in open and distance learning. Journal of Asian Social Science, 2(2): 1672-1684.

Mapolisa, T., B. Muyengwa and S. Chakanyuka, 2010. Tututors' experiences in med and bed (educational management) dissertation and research projects (2005-2009): The case of mashonaland central and mashonaland east regional centres of the zimbabwe open university. The African Educational Research Network in the African Symposium On-line Network Journal, 10(1): 111-127.

Pearce, L., 2005. How to examine a thesis. New York: Society for Research into Higher Education and Open University Press.

Potter, S., 2006. Doing post graduate research. London: Sage.

Seale, C.E., 2006. Researching society and culture. 2nd Edn., London: Sage.

Silverman, D., 2006. Interpreting qualitative data. 3rd Edn., London: Sage.

Thomas, J.R. and J.K. Nelson, 2001. Research methods in physical activity. 4th Edn., Albany: Human Kinetics.

Authors Bio-data

Bio-data for Authors

1. **Mr. Tichaona Mapolisa** is a Senior Lecturer and National Programme Leader for the Bachelor of Education in Educational Management in the Faculty of Arts and Education at the Zimbabwe Open University. To date, he has published thirteen research articles in six international peer reviewed journals. He has presented eighteen papers at international conferences and five papers at local conferences. He has published one book with Lambert Academic Publishing House (LAP). He can be contacted by business address: Zimbabwe Open University P.O.Box MP1119 Mount Pleasant Harare, Zimbabwe OR by Cell phone:+263 733 608 577 or +263 775 987 351 or by E-mail: tichmap@gmail.com / tichmapolisa@yahoo.co.uk

2. **Mr Augustine Kudakwashe Mubika** is a Senior Lecturer and Regionnal Programme Coordinator for the Department of Educational Studies in the Faculty of Arts and Education at the Mashonaland West Regional Centre of the Zimbabwe Open University. He has published eleven research papers in peer reviewed research journals. He has presented 10 research papers at various international conferences.