Increasing Service Quality in Education: Views of Principals and Teachers

Hulya Senol
Near East University, Faculty of Education, Department of Educational Sciences, Nicosia, North Cyprus, Mersin 10, Turkey

Gokmen Dagli
Near East University, Faculty of Education, Department of Educational Sciences, Nicosia, North Cyprus, Mersin 10, Turkey

ABSTRACT
The aim of this research was to take the opinions of teachers and principals to determine the ways to improve the quality of service in high schools in order to improve student satisfaction. This study tried to increase the awareness of teachers and principals about the quality in education and to provide their contribution to creating quality culture in high schools. In this study, a purposive sampling method was employed. Semi-structured interviews were conducted with 22 teachers lecturing at high schools and 10 school principals. The data was analysed through content analysis. The findings show that teachers emphasised the in-service training needs of teachers and school principals and principal duties of school guidance and counselling services, whereas school principals stressed the importance of usage by teachers of effective teaching methods; relations between students and principals, and relations between guidance and counselling services and teachers.

Keywords: high school, principals, service quality, teachers, total quality management

INTRODUCTION

Rapid developments in information technology and the internalisation of trade needs means that individuals' participation in the learning society and the importance of successful completion of upper secondary education is increasing in importance as an entry to the labour market and higher education (European Commission,2000). Because of the challenges of the 21st century, the work sector needs workers who possess problem solving skills, critical and innovative thinking and the ability to work in a team. To achieve that, students can no longer be assessed based on academic achievements only, but they also need to develop 21st century skills that are critical thinking and problem solving, collaboration across networks, agility and adaptability, initiative and entrepreneurialism, effective communication, accessing and analysing information, information and communication technology literacy, curiosity and imagination (Wagner, 2014 as cited in Gravemeijer et.al., 2017; Husin et al., 2016). Mathematics education (Gravemeijer et.al., 2017), science education **(**NSTA Board of Directors, 2011) and one of the methods that promote learning by doing (POPBL) in Science, Technology, Engineering and Mathematics (STEM) education programs (Husin et al., 2016) foster 21st century skills and there is a need to update mathematics education to keep up with the needs of society and through quality science and technology education, we can support and advance relevant 21st-century skills. Developing countries should be concerned with quality rather than quantity; those that strengthen and improve school quality by making investments in education are rewarded

Correspondence: Hulya Senol, *Near East University, Faculty of Education, Department of Educational Sciences, Nicosia, North Cyprus, Mersin 10, Turkey.*
✉ hulya.senol@emu.edu.tr

State of the literature

- There is an increasing interest in application of total quality management in schools because academic standards of the institutions need to be upgraded due to changes in technology and pressures from industry and to be able to foster 21st century skills of the students.
- Involvement of all stakeholders of education such as management and teaching staff in creating quality culture in schools is highly recommended.
- Student satisfaction is the essential point that need to be improved.

Contribution of this paper to the literature

- Service quality in education needs to be improved to satisfy the students.
- Contribution of teachers and school principals in creating and managing the quality programmes are essential.
- This study tried to increase the awareness of teachers and principals about the service quality in education and provide their contribution to creating a service quality culture in high schools in the Turkish Republic of Northern Cyprus.

with truly large economic as well as social gains (Hanushek, 2005). Interest in the application of total quality management in education is growing (Cheng, 2003 as cited in Ngware, 2006) because academic standards of the institutions need to be upgraded due to changes in technology and pressures from industry. Total quality management (TQM) is a management path based on continuous improvement to produce quality products and services to customers (Nawelwa, et al., 2015) and TQM principles are customer focus, leadership, involvement of role players, adoption of a process methodology, adoption of a systems approach to management, commitment to continuous improvement (KAIZEN), adoption of a factual approach to decision-making and the establishment of mutually beneficial relationships (Bunglowala & Asthana, 2016).

The application of total quality management increases and improves process efficiency and reduces defects and costs in institutions (Motwani & Kumar, 1997). Although these principles were initially developed for manufacturing industries, they can be used in schools and classrooms to improve academic and non-academic morale and productivity of students and also to deliver higher quality services to students (Aina, 2012).

Customer Focus, Service Quality and Student Satisfaction in Education

Service quality is an attitude of customers based on their long-term assessment of an organisation's service delivery process (Bateson and Hoffman 2011) and quality customer service is one of the most important aspects of Total Quality Management (TQM) model (Prajogo & Cooper, 2010 as cited in Al-Ibrahim, 2014). The dimensions of the service quality were described by many specialists in TQM. Some of these descriptions are as follows:

Sasser et al. (1978) listed seven service attributes that adequately embrace the concept of service quality

- Training of service providers
- Security –confidence, physical safety
- Consistency-receiving the same treatment for each transaction
- Attitude-politeness
- Completeness-the availability of ancillary services
- Condition-of facilities
- Availability- customer access to services

Lehtinen (1982) described service quality in three dimensions:

- Physical quality of products, services

- Interactive quality   (interaction between the consumer and the service organization)

- Corporate quality as the company image

Parasuraman, Zeithaml and Berry (1988) listed ten determinants of service quality that were regrouped in the well-known five dimensions in the SERVQUAL model which include "tangible", "reliability", "responsiveness", "assurance", and "empathy" (Sharabi, 2013).

- Reliability refers to the ability to perform the promised service dependably and accurately.

- Responsiveness includes the willingness to assist customers and to provide prompt service.

- Assurance refers to the knowledge and courtesy of employees and their ability to convey trust and confidence.

- Empathy refers to how a company cares and gives individualised attention to their customers, making the customers feel valued and special.

- Tangibles refers to the appearance of physical facilities, equipment, personnel and communication materials.

Service quality in education is the difference between the students' expectations for service performance of educational institutions prior to the service encounter and their perceptions of the service perceived in the institutions (Ahmad & Garg, 2012; Nell and Cant, 2014). The five critical factors of service quality in education (Menon, 2015) are

- Core Service or service product - it would refer to the courses and curriculum offered by an institution.

- Human element of service delivery- this includes the academic faculty and the academic administrative staff.

- Non-human element of service delivery- This includes processes, procedures, systems, and technology

- Tangibles of service- this includes factors like the college and classroom infrastructure.

- Social responsibility- This would include any community outreach programs that educational institutions have.

Customer focus is one of the fundamental concepts of ISO 9000-2000 (the International Organisation for Standardisation) and the EFQM (The European Foundation for Quality Management) (Al-Ibrahim, 2014). Students are customers of education and institutions must focus on what their students want instead of gathering data base on what institutions consider their students regard as important (Oldfield & Baron, 2000).

Educational institutions which provide a high quality of services and facilities, have more capable, high-performing and talented students (Hasan et al.,2013) and the teachers will achieve higher success if they prepare educational programmes according to the needs and expectations of their students (Demirtaş & Kahveci, 2010).

Educational institutions can provide a high quality of services by constructing their own approaches to quality (Militaru et al., 2013). They have to operate in a consumer-based manner and focus on providing high quality service so as to be preferred by students (Ene & Tatar, 2010). Total Quality Management can be applied in institutions by creating a quality culture where the main aim of the staff is to delight the customers (Karadağ, 2010; Manoj & Abdallah, 2015; Asaduzzaman et al., 2013; Rani, 2016) and strong links and partnerships should be exercised between all stakeholders of education such as management and teaching staff (Jamaa, 2010). In this way the school will have a systematic working environment and continuous improvement will be achieved (Şahin, 2015).

Although there are many studies about measuring student satisfaction done at university level, research on the measurement of student satisfaction regarding school service quality is scarce at high school level (such as school life quality studied by Demir, Kaya & Metin, 2012; Durmaz, 2008; Mok & Flynn, 2002; Sarı, Otunç & Erceylan, 2007; relation between school climate and school satisfaction (Zullig, Huebner & Patton, 2011), the effect of the learning environment on student satisfaction (Marul, 2014); life satisfaction (Suldo, Frank, Chappel, Albers & Bateman, 2014) and the service quality evaluation of students (Gullu & Sahin, 2015).

There have been only a few studies conducted on the total quality management in education in *North Cyprus*. Sarpten and Batman (2009) evaluated the organization of the Ministry of Education and Culture of the TRNC according to Total Quality Management; Çamlıca (2016) carried out a study in primary schools and assessed the satisfaction of parents regarding the school, the teachers, the school administrators and the staff in the Yedidalga region; Atamtürk, Aksakal, Gazi and Atamtürk (2011) evaluated performance management in state secondary schools; Şan (2016) observed the behaviours of the principal, teachers and students in a middle school in Nicosia and assessed the appropriateness of their behaviour to TQM implementation and İşlek and Hürsen (2014) evaluated the qualifications for the total quality implementation of teachers according to the views of high school students in Near East College in Nicosia. Researchers developed the 'School Self-Evaluation Scale' and administered it to 600 randomly selected high school students during the 2015-2016 academic year to assess the service quality in high schools by measuring student satisfaction. The analysis of the data indicated that 55% of the students who participated in the research stated that they were satisfied with the service quality of their school, whereas 45% stated that they were dissatisfied. There were significant differences between the perception of high school students of the service quality of their school according to gender, class grades, type of school and the education level of their parents. The data obtained reveals that there is a need to improve the quality of service in high schools in order to improve student satisfaction This is the only study which has used the opinions of teachers and principals to determine the ways to improve the quality of service in high schools in order to improve student satisfaction and has also tried to increase the awareness of teachers and principals about the service quality in education and provide their contribution to creating a quality culture in high schools in the Turkish Republic of Northern Cyprus. This makes the study significant.

OBJECTIVES

Total Quality Management is not implemented in the state high schools in North Cyprus and they do not have any strategic plans or any attempt to improve service quality in education to satisfy their students. The aim of this research was to take the opinions of teachers and principals to determine ways to improve service quality in education to improve student satisfaction. In this way, the contribution of the principals and the teachers to creating a quality culture can be achieved. To achieve this aim, the following questions have been addressed:

1- What can be done to improve the quality of service offered to students by teaching staff at high schools?

2- What can be done to improve the quality of service offered to students by school management staff at high schools?

3- What can be done to improve the quality of school guidance and counselling services at high schools?

4- What can be done to improve the quality of school activities (extra-curriculum, sports, exhibitions, contests, seminars etc.) at high schools?

5- What can be done to improve the quality of measuring and evaluation (test preparation, application and evaluation, analysis and feedback given to students) at high schools?

6- What can be done to improve the physical environment of schools (classrooms, garden, laboratories, meeting and sports halls, library etc.)?

Table 1. Demographic features of participants

	Teacher	Principal
Age	%	%
25-30	9.10	-
31-35	36.36	-
36-40	27.27	30
41-45	9.09	10
46- 50	18.18	60
Gender		
Female	64	60
Male	36	40
Years of experience		
0-5	13.63	-
6-10	22.72	-
11-15	18.18	30
16-20	27.27	10
21-25	13.63	-
26 and more	4.54	60

METHOD

Participants

Semi-structured interviews were conducted with 22 teachers lecturing at high schools and 10 school principals. Demographic features of the participants are given in **Table 1**.

Data Collection Process

Research data were collected between 09 January – 30 February 2017 in the appointment hours given by the participants and in an environment where they could express themselves easily and their voice could be recorded. Each interview took 45 minutes on average.

Data Collection

In the research, a semi-structured interview form was developed to collect the opinions of participants on how the quality of school service offered to students could be improved. Attention was paid to ensuring that, during the preparation of interview questions developed by researchers, questions could be understood easily and multi-dimensionality could be prevented; they were also not channelling participants in any direction (Yılmaz and Altınkurt, 2011).

In order to ensure internal consistency, determine the purposefulness degree, and check the understandability and applicability of the prepared interview form, it was given to three specialists in the field and their opinions were sought. The interview form was organized in line with the suggestions of the specialists.

In the second stage, a pilot interview was conducted with two high school teachers and two school principals so that the clarity and comprehensibility of the questions was determined as well as whether the answers coincided with the questions. It was seen that no problems emerged. Voices recorded during the interview were transformed into written form with the interview transcription form created in a computer environment. By means of lengthy specialist examination and pilot interview periods, effort was   made to ensure internal consistency through long-term interaction. In order to prevent possible data loss and ensure the compatibility of data to research questions, one researcher conducted the interview while the other observed the process and, when he deemed necessary, asked additional questions and requested explanations from participants. To increase the plausibility of

the research, direct citations were made from interviewees. All procedures in the research process were defined in detail to increase the external validity of the study. All findings were presented without interpretation to increase the internal validity of the research. Two other experts were then asked to examine the transcriptions and determine whether the questions were clear and understandable, comprehensive of the topic and ensured that there was a possibility of providing the required information. It was seen that 90% of these two experts were in agreement. In addition, raw data of the research are stored in the event that other researchers request it or in order to perform comparisons with another study.

Interview questions were asked to each participant with the same wording and emphasis to connotate the same meaning. A voice recorder device and note-taking techniques were used together in the interviews. These records were then transcripted. 128 pages of data were obtained by transcripting the interviews. First, the interviews were put into written form, which was verified; data were processed according to the determined themes and findings were interpreted with direct citations. To ensure the reliability of the data, records and transcriptions were examined by another researcher unconnected with the study and it was compared with the transcriptions of the researchers (Uzuner and Çolak 2004: cited in Yılmaz and Altınkurt, 2011).

Data Analysis

Descriptive analysis and content analysis techniques were used to analyse the research data. A descriptive analysis technique was realised in the framework of three activity steps (reduction and presentation of data, inference and verification) (Türnüklü, 2000).

Coding of Data

The CDs used for recording during the interview were transcripted and interview transcription was created by assigning a number to each row. Interview transcription and cassettes were given to an expert from the field to ensure that wrong or missing parts are controlled. Data obtained from interviewees were examined and separated into meaningful sections; then, the sections which formed meaningful wholes within themselves were named and coded. Next, researchers brought the codes together and explored the themes which would form the outline of the research findings. In content analysis, consistency between coders is usually calculated with the purpose of determining reliability. An interview coding key was prepared based on the interview questions. In order to verify the interview coding key, two interview transcriptions were selected with non-biased assignment and copied, and evaluated by the researchers independently. The evaluation was made by marking the appropriate options by interviewees to the interview coding key. In order to verify the consistency of interview coding key markings, answers to each question were examined and compared one by one; after this stage, interview coding keys were given their final version. Researchers marked the proper option which included the answer to each question in the relevant interview coding key after reading the transcription belonging to each interviewee independent from each other. Following this, an evaluation of researchers was made by controlling the answer option given to the relevant question belonging to the participant group and marking it as 'agree' or 'disagree'. If the researchers marked the same option to the relevant question, it was accepted as agreement; if they marked different options, it was accepted as disagreement. In this study, an agreement percentage formula was used in order to determine the reliability of content analysis. Agreement percentage is calculated with the formula 'reliability = agreement / (agreement + disagreement) x 100' (Miles and Huberman, 1994). When the agreement percentage in reliability calculation reaches 70%, it is said that the reliability percentage is reached (Yıldırım and Şimşek, 2011). In this study, general agreement level for all questions in total was calculated as 0.94 using this formula. In the codings performed by researchers, the codes in agreement were taken as the basis for reaching themes. QSR Nvivo 8 was used in the analysis and modelling of research data.

Finding of Themes

At this stage, the codes which were identified at the data coding stage were grouped under certain categories and themes were created. At the stage of determining sub-themes according to the data obtained in the

Table 2. Opinions as regards increasing the service quality offered by teaching staff to students

	Teacher (%)	Principal (%)
1.1. Opinions as regards employment of effective teaching methods	50	70
1.2. Opinions as regards evaluation of teacher performance	28	20
1.3. Opinions as regards re-arranging and improvement of the curriculum	55	40
1.4. Opinions as regards in-service training	73	50
1.5. Opinions as regards filling the teacher gap	23	10
1.6. Opinions as regards academic qualifications of teachers	32	60

research, researchers read all transcriptions one by one and created sub-themes individually. The researchers came together later and reached an agreement on sub-themes.

Organization of Data According to Codes and Themes

At this stage, the opinions of interviewees were explained in a form that the reader could understand and opinions were presented to the reader in a first-hand manner. Opinions of the participants were coded without assigning any names, as confidentiality dictates. Accordingly, high school teachers were coded as 'T' and each interviewee were coded as 'T1, T2, T3, T4...', whereas SP1, SP2, SP3, SP4... indicated high school principals. Interview notes were given in quotation marks followed by the code of the interviewee in parenthesis. An example of the coding system is given below:

Example-1: '...............' (SP(1))

Example-2: '................' (T(1))

SP: School Principal; T: teacher and 1, 2, 3....: number of the interviewee.

RESULTS AND DISCUSSION

In this section, the opinions of school teachers and principals on the improvement of school service quality are provided below and explanations regarding the essence of the results are supported by the literature.

    I. **Main theme:** opinions as regards increasing the service quality offered by teaching staff to students

Table 2 gives the ratios and themes as regards the improvement of services offered by teaching-education staff to students, which is the first main theme of the study. The highest percentage in this theme belonged to in-service training for teachers with 73%. One teacher reflected on this topic: '*teachers, especially beginners in the profession, should receive in-service training and practical courses on curriculums, up to date teaching techniques, usage of technology in education, their branches and measuring-evaluation. During these trainings, information must be shared between experienced teachers and new ones*' (T (1)). Teacher's professional development is necessary for teachers to cope with everyday changes in knowledge and skills in education (Koda, 2012) and in-service courses can help teachers to improve their capacity which is a necessity of modern schooling (Nawab, 2017). In-service teacher development programs also foster school improvement (Dreer et al., 2017). Most teachers emphasised the in-service training that they needed whereas 70% of school principals stressed the importance of using effective teaching methods. One principal reflected on this topic: '*teachers must be well prepared for the lecture. During the lecture they must use technology and make use of different printed and visual resources*'(M(4)).This is backed up by the literature: '*developing positive teacher/student relationships through positive teaching strategies helps create an effective and positive learning environment* (Woolley, 2017) and '*technology-mediated teaching strategies can positively affect motivation, performance, and self-directed learning*' (Gabrielle, 2017).

    II. **Main theme:** Opinions on the improvement of the quality of service offered by school management to students

Table 3 provides the themes and ratios for opinions of teachers and school managers in the context of this main theme.

Table 3. Opinions on the improvement of the quality of service offered by school management to students

	Teacher (%)	Principal (%)
2.1. Opinions on the duties of principals	68	40
2.2. Opinions on the in-service training that principals need	86	30
2.3. Opinions on the relations between principals and teachers	28	40
2.4. Opinions on the relations between principals and students	23	60

Table 4. Opinions on improving the quality of school guidance and counselling services

	Teacher (%)	Principal (%)
3.1. Opinions on the duties of guidance service	95	70
3.2. Opinions on the guidance personnel gap	50	30
3.3. Opinions on the in-service training that guidance personnel need	18	20
3.4. Opinions on the academic skills of guidance personnel	14	30
3.5. Opinions on the relations between guidance service and teacher	14	75

86% of teachers provided their opinions on the in-service training that principals have to receive. One teacher reflected on this topic as follows: '*school principals must be people who unite all teachers and students around common targets and purposes, with developed human relations, general culture and academic skills, who can speak at least one foreign language fluently, and able to use technology in education. In order for all school principals to improve themselves, all school principals have to urgently receive in-service training on the content of curricula used at their schools, exams that students are preparing for, leadership, school management and total quality etc.'*(T(18)).The school leaders can make a difference in both the effectiveness and efficiency of schooling if they are involved in professional development activities consisting of both formal and informal activities planned and implemented to equip and improve their knowledge, skills, competencies and attitudes (Abonyi, 2017). As regards the above, 60% of school principals stated their opinions on principal-student relations. One principal reflected as follows: '*school managers must be closely interested in the problems of students and be of assistance in solving them shortly*' (M (7)). Positive behaviours of the school principal is a bridge between creating appropriate learning and teaching environments and student achievement (Korkmaz, 2005).

III. Main theme: Opinions on improving the quality of school guidance and counselling services

Table 4 provides the themes and ratios for the opinions of teachers and school managers in the context of this main theme.

Ninety-five percent of the teachers provided their opinion on the duties that the guidance service should undertake. One teacher reflected his/her opinion as follows: '*school guidance service must know and monitor students very well in line with their findings they must prepare a file for each student which must be accessible by all teachers. Guidance service must inform students on promotion of professions, job selection, identity crisis, career planning, adolescence, universities etc.*' (T (23)). School children seek help for academic or career concerns (Chen & Kok, 2015) and counsellors need to be involved in many campaigns such as career awareness, antidrug, school violence, road safety and many non-counselling activities such as the checking of badges, tardiness or disciplinary cases (Low et al., 2013).

Seventy-five percent of principals emphasise that ideas must be exchanged between guidance service and teachers. One principal reflected on this topic as follows: '*in order to be able to know students better, solve their problems quickly, identify knowledge and skills of students and direct them to professions in a more accurate manner, constant exchange of knowledge between teachers and guidance service is a must*'(M(3)).There is a need for a more collaborative and cooperative approach in handling the changing social environmental problems and issues, between all the stakeholders who are responsible for the development of our children (Kok and Low, 2017).

IV. Main theme: Opinions on increasing the quality of school activities (extra-curricular, sports, exhibitions, contests, seminars etc.)

Table 5. Opinions on increasing the quality of school activities (extra-curricular, sports, exhibitions, contests, seminars etc.)

	Teacher (%)	Principal (%)
4.1. Opinions on increasing the quality, type and number of school activities	28	60
4.2. Opinions on planning and evaluation of school activities	50	50
4.3. Opinions on the budget reserved for school activities	28	-
4.4. Opinions on student participation at school activities	55	70

Table 6. Opinions on improving the quality of measuring and evaluation services (test preparation, implementation and evaluation, analysis and feedback to students)

	Teacher (%)	Principal (%)
5.1. Opinions on creation of a measuring-evaluation unit	23	50
5.2. Opinions on the functioning of a measuring-evaluation unit	32	40
5.3. Opinions on the education to be given to teachers on measuring and evaluation	64	60

Table 5 provides the sub-themes and ratios for opinions of teachers and school managers in the context of this main theme.

Fifty-five percent of teachers and 70% of principals gave their opinions on student participation at school activities. One teacher reflected on this topic: '*school activities must be determined at meetings attended by the administration, student leaders and teachers in line with the needs of students. These activities must be promoted to the students and their attendance must be ensured*' (T (7)). One principal said regarding this topic: '*activities must be chosen according to the skills and interest areas of students and students must be encouraged for participation*' (M(7)).This is confirmed by the literature: participation in extracurricular activities enhances students' school motivation (Denault and Guay, 2017).

V. Main theme: Opinions on improving the quality of measuring and evaluation services (test preparation, implementation and evaluation, analysis and feedback to students)

Table 6 provides the sub-themes and ratios for opinions of teachers and school managers in the context of this main theme.

Sixty-four percent of teachers and 60% of principals provided a common opinion on the training that must be given to teachers on measuring-evaluation. One teacher reflected on this topic: '*Most schools lack measuring-evaluation personnel or they have only 1 person. This number is rather insufficient. Teachers, especially those with no experience, must be educated on question preparation and evaluation techniques*' (T (6)). One principal said regarding this topic: '*teachers must be educated on test preparation, especially on accurately determining the length of the test. Test questions must be examined by measuring-evaluation unit. They must report to the teachers the mistakes they identify*' (M (1)).The findings of the research conducted by Gelbal and Kelecioğlu (2007) concluded that teachers did not use non-traditional methods very much, which is why teachers need training on the usage and preparation of measuring techniques.

VI. Main theme: Opinions on improving the physical environment of the school

Table 7 provides the sub-themes and ratios for opinions of teachers and school managers in the context of this main theme.

Table 7. Opinions on improving the physical environment of the school

	Teacher (%)	Principal (%)
6.1. Opinion on identifying and completing physical deficiencies of the school	59	50
6.2. Opinion on equipment of sports hall, laboratories, library, etc.	68	60
6.3. Opinion on the budget reserved for organizing physical environment	77	80

Seventy-seven percent of teachers and 80% of principals emphasised that the budget reserved by the Ministry of National Education for the organization of physical environment should be increased. One teacher said regarding this topic: '*the budget reserved by the Ministry of National Education on the provision of organized, clean and ergonomic school buildings and equipment is close to zero. There is material support for only very urgent reparations. Parent-teacher associations and municipalities can be applied for this support. In addition, projects can be prepared for [the] European Union*' (T (6)). One principal on this topic reflected: '*Attention must be paid to preserve existing physical areas. Improvement of physical conditions is certainly a matter of investment! The state must give serious support in this. Companies can be sponsors as well*' (M(9)). In light of this, the literature reflects that: '*in every country the biggest share of education expenditure is to face current expenses — salaries and daily consumption goods. A very small percentage of expense is left for capital, i.e. for investment in infrastructure, computers and libraries*' (Flores, 2017*)* so that especially '*schools in impoverished environments should look elsewhere for funding' (*Ngwenya and Sibanda, 2017).

CONCLUSION AND SUGGESTIONS

Struggling of companies for survival in rapidly growing competitive environment shaped by globalization is increasing the need for qualified employees who are highly educated in their fields and having 21st century skills which can be fostered by science, mathematics and technology education. Successful completion of high school education is also increasing as a gate to university education or the labour market. This brings to the fore the topic of service quality in educational institutions which is one of the principals of Total Quality Management. Students are clients of education; thus, identifying needs and expectations of students about the quality of school services and satisfying them are essential principles of total quality management (Gruber et al., 2010). Evaluation of the service quality and determining the strengths, weaknesses and influence of the factors that impact overall service quality is crucial. This may lead to better allocation of resources and results in students being provided with an improved service (Abdullah, 2006). In this manner as a previous study, the researchers developed a School Self Evaluation Scale and measured the needs and expectations of the high school students in 2015-2016 academic year as suggested by Nadiri et al. (2009) The results revealed a need to improve service quality in education in high schools and increase the satisfaction of the students which is a positive and important predictor of student loyalty, retention, as well as the academic performance of the students (Sweeney, 2016). The principals' leadership is the most important factor in determining the development of schools (Wiyono, 2017). Participation of stakeholders of education such as teachers and principals in decision making from the initiation stage of the school improvement effort is essential (James, 2008) and total quality management will be meaningless without participation of school personnel (Sallis, 2002 as cited in Shahmohammadi, 2017). In this frame of service quality theory, the aim of this research was to take the opinions of teachers and principals to determine the ways to improve the quality of service in education to improve student satisfaction. This aim is backed up by many researchers such as Ah-tek, and Starr(2014), Duzevic and Casni (2015), Iachini et.al(2016), Mendenhall et al. (2013), Murley, Keedy and Welsh(2008), Sahin (2013), Tsiolakki and Tsiakkiros (2013). Teachers emphasised the in-service training needs of teachers and school principals and principal duties of school guidance and counselling services. In-service training and school staff development are accepted as common ways to foster school improvement and accountability (Trorey & Cullingford, 2017) and also as important dimensions of service quality by the specialists in TQM as discussed in introduction. School principals stressed the importance of usage by teachers of effective teaching methods, as well as relations between students and principals and relations between guidance and counselling services and teachers. Teachers and school principals declared common opinions on the attendance of students at school activities, training to be provided for teachers on measuring-evaluation and an increase in budget reserved for physical conditions of schools. The role of the school counsellor is seen very important as they foster academic achievement

of students and a collaborative effort with stakeholders to develop a strategic plan to improve student achievement and this helps determination, excellence, and innovation to turn low-performing schools into thriving and high achieving schools (Hines et al., 2017). Provision of adequate instructional materials and educational infrastructure, imparting the "right" knowledge, creating a conducive learning atmosphere, provision of teacher support and welfare and availability of high-quality teachers are accepted as important dimensions of high quality education (İbrahim et al., 2017).

In this respect, it is suggested that further studies can be made on determining the in-service training needs of teachers and school principals; effective teaching methods; creating positive relations between school principals and students; guidance-counselling services and teachers; the ways to increase attendance of students at school activities; and budgeting for improving the physical conditions of the school to improve the service quality of the schools in order to meet the needs of students who require to get 21st century skills to be able to reach the standards of information society.

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