

DR. IJAZ AHMAD TATLAH*
DR.MUHAMMAD AMIN**
DR.MUHAMMAD KHALID SALEEM***

ROLE OF PHYSICAL FACILITIES TO ENCOURAGE THE QUALITY ASSURANCE PRACTICES: A SURVEY OF UNIVERSITIES FROM PAKISTAN

Abstract

The aim the study at hand is to explore the perceptions of teachers, students, and Directors Quality Enhancement Cells' (QEC's) about the role of physical facilities towards the encouragement of Quality Assurance Practices (QAP) at University level in Pakistan. Twenty eight universities were randomly selected as fourteen from public sector and fourteen from private sector. Questionnaires were served on respondents as well as semi structured interviews were also conducted. Collected data were analyzed by using descriptive and inferential statistics techniques. The study revealed that students, teachers and Directors of QEC's faced a lot of problems and issues without physical facilities. Quality Assurance Agency (QAA), Quality Assurance Department (QAD) and Higher Education Commission Pakistan (HEC) are working consistently to supervise, guide and facilitate the universities of Pakistan for developing quality assurance practices for both public and private sectors. Majority of the students, teachers, and director QECs were of the view that books, research journals, manuals, use of science labs, equipment for experiments, and latest computers were available for teachers and students' in the universities. It

* Assistant Professor, University of Education, Lahore, Pakistan.

** Assistant Professor, University of Education, Lahore, Pakistan.

*** Assistant Professor, University of Education, Lahore, Pakistan.

was suggested by the students, teachers and QEC directors of universities that Quality Assurance Practices (QAP) can be accelerated by taking into consideration the factors like; provision of sufficient resources; addition of latest software in IT labs and current edition of books along with digital libraries.

Key Words: *Physical facilities, Quality Assurance Practices, Library, Laboratory*

Introduction

Today, quality in the institutions is the big issue to achieve the international standards. Arcaro (1997) [1] explained about the forces and methodologies for changing the educational scenario. To bring quality in the institutions, it is needed to participate in quality management process. According to Isani and Virk (2005) [19], quality is divided into many dimensions, which play a vital role to enhance the quality in higher education. We should prepare framework for evaluation of quality, infrastructure, students support services, curriculum and resources.

In Pakistan, quality is not up to the mark now a day in higher education. Due to some limited facilities, the level of quality education is deteriorated rapidly. Our higher education system was not supported by modern educational scenario. Therefore, many factors which are affecting quality education system, i.e., inadequate system of admission, unmotivated learners, lack of trained teachers, imbalanced teachers' and students' ratio, lack of advanced curriculum and inadequate system of assessment system are major hurdles to achieve the international goals (Malik, 2002)[25].

Quality is the name of perfection, excellence, and value for money, fitness for purpose and transformation (Harvey & Green, 1993)[16]. According to Ashcroft and Forman-Peck (1995) [2]

quality means, “perfection implies faultlessness for zero errors”. Biggs (2003) [6] explained about quality as best use of money to meet the standards of living and its accountability. Kantio (2008) [20] defined the quality assurance meaning, it is a procedure, processes and system to implement the plan and policy in manufacturing the products. Quality assurance is an organized and permanent attention in terms of quality preservation and quality enhancement (Vreijerstijn, 1995)[43].

According to Lim (2001) [23] quality assurance indicates policies and processes for ensuring the protection and enrichment of quality. In the universities of developing countries, there is a need to utilize international quality assurance mechanism to enrich the quality of their programs (Lim, 2001 [23] & Idrus, 2003)[18]. Though, there is a huge difference in the economic and social status between developed and developing countries, yet, it will be useful to apply quality assurance measures into higher education institutions of developing countries. However, for successful plan and procedure, attention must be given to the utilization of best resources in the developing countries.

In Pakistan, quality assurance system was introduced by Higher Education Commission (HEC). Quality Assurance Committee was established by HEC on October 23, 2003 comprised of Vice-Chancellors of different universities of Pakistan. The member of this committee designed a framework for accreditation and ranking of universities in Pakistan (Batool & Qureshi, 2007)[4].

In Pakistan, Quality Assurance Agency (QAA) was established on January 18, 2005 at Higher Education Commission of Pakistan (HEC) with a high intention to arrange the resources for capacity building through trainings/seminars and workshops in order to enable the higher education institutions to fulfill the international objectives. Furthermore, the output of Quality Enhancement Cells

(QECs) was best to attain the objectives of higher education. To the performance of QECs, it was decided to establish QECs in all national universities in Pakistan. The QAA at HEC with the help of QECs are making all their efforts to improve the quality and its standards of higher education in Pakistani universities to put their name in the list of ranked international universities (Batool & Qureshi, 2007)[4].

Higher education is necessary to create trained manpower for the country. National Education Policy (1998-2010) [14] focused to enhance the admission rate from 3% to 7% in the universities. It is reality that Pakistan cannot produce a large amount of trained manpower aimlessly. Therefore, the policy will help to enhance the intellectual resources in the universities for higher education for economic and technological growth. So, it is imperative to strengthen the linkage between university and industry. To increase the technological resources among students of all ages and to meet the futuristic challenges for planning and monitoring, our educational system is for better educational environment in the universities.

After spending a huge amount on education, every year results are hopeless, and every plan and education policy fail, these things create a critical question. The teacher training institutes face a tremendous problem such as, buildings, equipments, furniture, teaching aids, library books and fresh reading material which fulfill the current challenges. Today, higher education institutions play a role as a capital investment to promote economic and social development. Government is responsible to provide such things to see the current scenario and equipped higher education institutions' with full facilities. There are some characteristic of National Educational policy 1998-2010; to expand the access to quality higher education on merit, to produce quality manpower to meet the current trends, share to the advanced

knowledge and success of nation and in other countries we see, great emphasis were given on establishment of quality council, provision of quality assurance mechanism, performance indicators, academic audit, strategic planning and management, ranking order of universities in teaching, research, and provision of students support services.

Literature Review

Higher Education Commission is introduced a lot of things in higher education i.e., infrastructure, facilities and focus on laboratories. So, researcher wants to see the out-put level from these resources. In spite of these, physical facilities play a vital role in higher ranking of human beings, technological, physical and informational. The institution utilizes these resources in effective and efficient way and focus on the continued development of these resources (Batool, Qureishi & Rouf, 2010)[5].

According to McKeachie (1976) [27] "Laboratory training is also frequently used to develop skills necessary for more advanced study or research". The resources of institution such as physical, fiscal, technological, research equipments and provisions of staff and all the additional means should be considered important while planning, allocation and assessment system. The priorities of institution are exposed through allocation of resources among individuals, units and various programs. The process of planning send guiding principles for decision making about allotment of possessions, rather every plan itself gives the methodology of balanced reviewing and inspecting all the resources of institutional resources.

It is the responsibility of an institution to obtain, develop, preserve the appropriate technological and physical resources for instance building (owned or rented), entirely equipped laboratories and

classrooms, materials, gardens, students' and staff housing etc. The information means for example instructional technology and library should be able to create an atmosphere helpful for teaching, research, learning, capacity of building and training of faculty, staff and students is crucial to educate them for valuable use of instructional technology and library. The institution establish periodic evaluation of its technological, physical, information and monetary means in sequence with its identified requirements for present, and planning for future basis on budget allocation and cogent planning. The sufficiency, consumption and effect of institutional assets are assessed methodologically. The consequences of these assessment systems will utilized for additional development (McKimm, 2003)[26].

The increased usage of internet facility by the students and faculty will make them able to reach to the latest knowledge in their areas of study. It is only possible when the scholars as well as teachers have ready contact to internet facility. To help access and utilize preliminary courses on internet for faculty and scholars may be established for the successful usage of internet (Niazi & Mace, 2006)[30].

The facility of library is available for the students of all the higher education institutions. All the respondents' responded similarly about the availability of libraries in higher education institutions. The special focus was that whether all the libraries are placed in suitable building and is easy to access for their users? Whether the available materials and books are of good quality and enough for the users? Whether the available books are related to all the subjects taught tin the institution? A good and well-equipped library is very important to provide the quality of education to the students. A good and quality library can have sound effects on the admission of students (Koslowski, 2006)[21].

About the accessibility of well-resource science laboratories, there was a likeness in the answers of students and management in their institutes. The results of the research paper exposed that the most of respondents were satisfied on the accessibility of scientific laboratories, only 18 percent of were disagreed and in which 16 percent were uncertain. The respondents who were uncertain or disagreed may have not any concern with the science laboratories or they may be not being contented with the available materials or equipments there. Basically, the science apparatus is costly and is not offered in Pakistan. So, the Government should persuade the private sector to bring in the science apparatus by excluding these matters from taxes and other duty charges (Lemaitre, 2008)[22].

The results of the study exposed that there was a huge likeness of views and the respondents who have well equipped computer laboratories in their institutions. That's why the university was ready to offer computer sciences programs to the learners admitted with them. In the National Education Policy (1998-2010), [14] it was mentioned that the Government focused on increasing Science and Technology especially in higher education. The private institutions of higher education also go after the government plan. Computer is indispensable for studying the Computer sciences subjects. It is very helpful for administrators, senior management and teachers. A computer is vital for implementing the decisions made by the management, planning and other focal works of academic institutions. The computer laboratories are helpful for other departments by giving them a networking ability to make their functions time saving and smooth.

In this era of scientific innovation and information explosion, knowledge and technology development hold the key to human growth and prosperity. Libraries play a facilitative role by providing the resources and enabling environment that can foster

intellectual, emotional and social development. In order to render effective and efficient services, it is paramount for the libraries to constantly monitor changing customer needs and preferences so as to reorient their services accordingly. Library and information services are fundamental to the goals of creating, disseminating, optimally utilizing and preserving knowledge. Libraries are harbingers and custodians of knowledge. Besides, e-resources are making the information more effective (Lomte, 2007)[24]. The main function of university libraries has been to support the teaching learning activities and research needs of faculty and students. University libraries are expected to adopt a more strategic approach to promote their services and delivery system as viewed by Bamigboye (2007)[3].

Libraries' multifaceted informational, educational, social and cultural roles provide excellent learning opportunities for the diverse user population. An outstanding customer service makes libraries' contribution to lifelong learning more effective. Ueno (2008) [42] opined that rapid technological progress has forced libraries to adapt and adjust their structure and processes to match users' needs and increase their satisfaction. The technology is customer-centric, may help libraries to identify users' preferences, detect their needs, motivate library staff to interact well with users and tailor the right service outputs and products (Wang, 2007)[44].

Libraries now find themselves at a critical juncture as the challenges encountered are not necessarily related to the introduction of new technologies but also to the creation of an ideology and culture where technological imperatives are increasingly governing and directing management processes (Sierpe, 2004)[37]. Bamigboye (2007) [3] evaluated the library services and indicated that the user demands of library service represent a wide range of aspects, including the availability of

conventional books and periodicals, a good reference function and access to internet facilities, which are considered an important library function by many of the respondents.

There is in fact a general conviction that the state of school's learning environment including infrastructure has a significant impact on teachers' success and students' educational performance. The facilities that are required to make easy effective learning and teaching in an educational institutions include the classrooms, libraries, offices, laboratories, conveniences and other buildings and furniture stuff and sporting equipments. The learning and infrastructure atmosphere has very strong effects on the academic standard which is an indicator of quality assurance in the universities. For instance, Earthman (2002) [12] reporting on California, exposed that comfortable classroom increase teachers' efficiency and provide opportunities for learners to get additional individual attention, contribute fully in debates, ask more questions, decrease discipline problems and perform better than students in schools with substandard buildings by several percentage points. It is also not uncommon that facilities in most Nigerian public schools are dilapidated and inadequate to provide quality education service delivery (Sanusi 1998)[36].

Ogundare (1999) [31] and Olagboye (2004) [32] viewed utilization of school infrastructure and learning environment as the extent of usage of school buildings, laboratories, library, assembly-ground, flower garden, school garden, volleyball field, chairs, desks, and chalkboard. However, too much pressure on their use could result in over utilization, a situation that could lead to rapid deterioration and breakdown. For instance, when a classroom built to accommodate 40 students is constantly being used for 60 students then the returns from these facilities may not be maximized in terms of teaching and learning. Comfortable learning facilities will not only boost the morale of teachers and

students but will also ensure the realization of the set educational objectives in the universities.

Nejati and Nejati (2008) [29] measured how successful the libraries have been in meeting user needs by providing good and reliable services and reported a poor level of customer satisfaction due to lack of identifying the most important aspects of service quality considered by the customers. Nagata, Satoh, Gerrard, and Kytomaki (2004) [28] accomplished that the library service quality consists of four dimensions: effect of service (personal); collections; access and effect of service (organizational). The application of quality management principles in libraries can establish a culture of continuous improvement.

The library of any institution is called the 'spirit of the university' as it serves the educational community of an institution. Brophy (2001) [8] stated that several other discussions on the educational library ignore the reality that for more university researchers, these ideas do not mirror any truth, if they always did. In this environment, there has been great apprehension about the status and role of educational library. Numerous writers have mentioned that educational libraries should be to alter and the responsibilities and roles of librarians require conceptualize again. In 1979, Osburn has highlighted the requirements for change in the research libraries as the patterns of scholarship in America were also changing. The rising supremacy of the sciences in university's pecking order in the disciplines and the wants of endowment agencies of government for the research were also changing. He stressed that research libraries required to be more receptive to the new educational program and service-learning model of assortment development was required (Osburn, 1979)[35].

In the last year, the debate about amendments in educational libraries emphasizes commonly on the ICT developments, new teaching concepts and learning concepts, the presentation of information in the digital format and new monetary models and official frameworks. Many writers confer hope for the library in this age of information, a range of new partnerships and functions for library employees that surge from modifications in the society and higher education. These alterations within the library will be for all parts of the conservatory and what will the alterations mean for faculty, students, educational administrators and library staff and technical staff themselves. So, many authors consider that these “changes could catapult the library into a central role within the teaching/learning enterprise if appropriate adaptations are made; if not, they could further remove the library from the institutional center” (CETUS, 1997)[9].

Teaching procedure is managed completely by faculty with the help of a variety of inputs like laboratories, library, syllabi, industry interaction and computer facilities (Harman, 2007).

This is the age of getting knowledge and transferring it for improved present and relaxed future. The results reflect that the area of research does not seem to be emphasized as the research expert teachers and trainers are not accessible; libraries are built but the related matter is not available; computer laboratories do not offer access to knowledge, etc. On their hand, on line access to important research papers is very disappointing; at some places “it’s as like building the castles in the air”, as expressed by some respondents (Strikanthan. & Darlymple (2005)[39].

After reviewing different researches, it was found, that quality of higher education in Pakistan is decreasing. Enrollment rate was also decreasing about 5% per annum (Statistical Information Unit. 2010)[38]. The enrollment ratio in higher education in Pakistan is

not satisfactory. Not a single Pakistani university is in the list of top 500 ranking universities in the world. There could be many problems such as; no attentions were given on the quality criteria at universities. Huge funds and scholarships were allocated for students' in the universities but all in vain. Although, there is a great need to increase the number of Ph.Ds in different disciplines to promote research culture. Many graduates who qualified their education either remained unemployed or got jobs in irrelevant fields. A large number of students went to abroad for seeking quality higher education, due to dearth of physical facilities i.e., old laboratories, low standard of Information Technology (IT) facilities, lack of Professional development strategies, weak research culture, not standardized assessment system of examination in Pakistani universities (Isani & Virk, 2005) [19]. Therefore, there is dire need to explore the existing physical facilities as encouragement to quality assurance practices in the universities of Pakistan.

Statement of the Problem

Quality demand new innovation in ideas and resources to enhance the level of any sustained condition of the phenomena. This is the case with higher education as well as concerned with Pakistan, there is shortage of universities according to the growth level of population. If there is shortage of institutions' then there is clarity of graduates. But if we arrange about education for our graduates then there is need to view the physical facilities as encouragement to quality assurance practices in the universities of Pakistan.. If a country spent some more over their educational system then the achievement level will be higher. The aim of this study was to know about "Role of Physical Facilities to Encourage the Quality Assurance Practices: A survey of Universities from Pakistan".

Objectives of the Study

Some objectives were designed to look at the views of students, teachers and Directors of Quality Enhancement Cells' (QECs) concerning physical facilities as encouragement to Quality Assurance Practices in the universities of Pakistan and to differentiate the views of students, teachers and Directors of QECs in relation to physical facilities about Quality Assurance Practices in the universities of Pakistan.

Research Questions of the Study

Some research questions were also arranged to investigate the views of students, teachers and Directors of QECs related to physical facilities as encouragement to Quality Assurance Practices in the universities of Pakistan: what were the opinions of students, teachers and Directors of Quality Enhancement Cells (QECs) concerning physical facilities faced by the universities to execute QAP in the universities of Pakistan? What were the differences along with the views of students, teachers and Directors of Quality Enhancement Cells (QECs) about physical facilities faced by the universities to execute QAP in the universities of Pakistan?

Significance of the Study

Some stakeholders of this study are as under: the study may be helpful for Higher Education Commission (HEC) of Pakistan in its activities to expand a quality assurance structure for universities to achieve the current need, the conclusion of this study may be helpful to enhance fiscal policies, its planning and execution at national and international level in the universities and the results of this study may also be valuable for the experts of QECs in the

universities of Pakistan. Therefore, this study will also help to strengthen the relationship between education and industry.

Methodology

Descriptive and survey method was used to gather the information. Procedure of this study is described below:

Population of the Study

All universities students of master programs, teachers and the Directors of QECs were the population of this study (HEC, 2008)[17].

Sample

Twenty-eight (15 public and 13 private sector) universities were selected with lottery method technique from Pakistan. Nine hundred and eighty (thirty-five from each university) teachers were chosen with the help of lottery method. Two thousand and one hundred (seventy-five from each university) students were chosen with the help of lottery method. Twenty-eight Directors of QECs from all selected universities were taken with the help lottery method (purposive sampling technique was used where Directors of QECs were not appointed properly).

Development of Instruments (questionnaires and interview protocols)

Quantitative as well as qualitative informations were taken from students of master programs and teaching faculty with the help of questionnaires from their respective universities about physical facilities (library, computer labs. and science labs.) on five point (Strongly Disagree (SDA) =1, Disagree (DA) = 2, Undecided (UD)

= 3, Agree (A) = 4, Strongly Agree (SA) = 5) Likert scale, as well as some open ended questions.

For enhancement of the quantitative component, some open-ended questions were incorporated in interview protocols for Directors of the QECs for the twenty-eight public and private sector universities of Pakistan. Their opinions were to be known regarding physical facilities (library, computer labs. and science labs.) as encouragement to Quality Assurance Practices faced by the universities of Pakistan.

Data Collection

All questionnaires were circulated to the participants with instructions by the researcher and interview protocols were conducted personally by the researcher from the Directors of the QECs of the sampled universities.

Statistical Analysis

Analysis of quantitative and qualitative data was completed through SPSS and interviews protocols were transcribed, then segregated to broad categories and descriptive coding were used. The assignments of thematic codes was taken place during the reading of each transcript of Directors of QECs for analyzing interviews, pattern of data analysis suggested by Creswell, (2007) [10]; Bogdan and Biklen, (2003)[7] were followed.

Results, Conclusions and Discussions

The mean response values are ($M=3.98$, $SD= 0.89$) about availability of books related to the courses, ($M=4.10$, $SD= 0.87$) easily accessibility of books, ($M=3.52$, $SD= 1.06$) availability of equipments related to experiments, ($M=3.59$, $SD= 1.25$)

availability of need based computers and ($M=3.77$, $SD= 1.19$) facility of multimedia were available in the universities in an appropriate manner. But other facilities were not available as responses by the respondents as appeared. It indicated that these physical facilities were much better position in the universities with the perceptions of public and private sector universities teachers. Mean response value ($M=2.34$, $SD= 1.10$) showed that new edition of books were not regularly added in the library, the mean response value ($M=2.25$, $SD= 1.19$) revealed that research journals were not available in the library, the mean response value ($M=2.38$, $SD= 1.26$) stated that digital library was not available in the universities, the mean response value ($M=2.35$, $SD= 1.36$) described that facility of photocopy was not available in the library, the mean response value ($M=2.35$, $SD= 1.15$) indicated that science laboratories manuals were not available in the universities, the mean response value ($M=2.21$, $SD= 1.11$) reflected that latest equipments were not available in science laboratories, the mean response value ($M=2.24$, $SD= 1.07$) showed about the assurance level of safety measures in the science labs. was not existed and the mean response value ($M=2.34$, $SD= 1.23$) indicated that latest softwares in computer laboratories were not available in the universities.

Regarding physical facilities in the public sector universities, difference was statistically significant ($t= -4.65$, $p=0.000$) in the responses of arts and science teachers of public sector as overall scores and its sub components i.e., library, science as well as computer labs. Mean scores about science teachers responses ($M = 3.63$, $SD = 0.72$) were significantly more as compared to the arts teachers responses ($M = 3.32$, $SD = 0.74$) regarding library, science as well as computer labs. Regarding physical facilities, difference was substantial observed ($t= -2.61$, $p=0.009$) between the responses of arts as well as science teachers as a whole scores and its aspects i.e., library and science labs. except computer labs. Mean

achievement scores about science teachers ($M = 3.59$, $SD = 0.72$) were found larger as arts teacher ($M = 3.36$, $SD = 0.84$) responses about physical facilities and library as well as science labs.

Responses regarding physical facilities, results were statistically substantial ($t=3.52$, $p<.001$) between the scores of male and female teachers' as overall scores and its aspects i.e., library, science and computer labor. According to mean achievement values as male teachers ($M = 3.57$, $SD = 0.78$) were greater as female teachers ($M = 3.38$, $SD = 0.72$) as regard physical facilities and library, science as well as computer labs.

Difference among teachers' responses having different designations was significant ($F=8.24$, $p<.000$) about physical facilities as collective scores and its components i.e., library, science and computer labs. Mean achievements scores of assistant professors' responses ($M = 3.65$, $SD = 0.74$) were better (III>II) as associate professors' ($M = 3.13$, $SD = 0.98$). Difference among views of teachers having different designations was significant ($F=2.83$, $p=0.038$) about physical facilities as overall scores and its components i.e., library and science labs. Difference was statistically significant ($F=5.62$, $p=0.001$) about physical facilities as overall scores and its components i.e., library and computer labs. except science labs. Mean achievements scores of assistant professors' responses ($M = 3.66$, $SD = 0.76$) were better (III>II) as associate professors' ($M = 3.07$, $SD = 0.01$) regarding physical facilities and computer labs. Difference was statistically significant ($t= -2.20$, $p<.028$) between the scores of chairpersons and teachers' in relation to physical facilities as overall scores and its aspects i.e., library. It was considered that mean achievement scores of chairpersons ($M = 3.50$, $SD = 0.68$) were greater as teaching faculty ($M = 3.49$, $SD = 0.77$) as regard physical facilities.

Students' responses

- 1) The mean response value ($M=4.00$, $SD= 1.04$) that books related to courses,
- 2) The mean response value ($M=3.86$, $SD= 1.10$) showed the system that books were easily accessible in the university library,
- 3) Mean response value ($M=3.59$, $SD= 1.12$) showed that research journals were available in the library.
- 4) The mean response value ($M=3.55$, $SD= 1.16$) showed that the availability of manuals for use of science labs.
- 5) Mean response value ($M=3.64$, $SD= 1.14$) expressed that equipments related to experiments were available in the science labs.
- 6) Mean response value ($M=3.90$, $SD= 1.12$) revealed that the requisite computers were available in the university.
- 7) Mean response value ($M=3.90$, $SD= 1.20$) showed that facility of multimedia was available in the department.
- 8) The mean response value ($M=3.59$, $SD= 1.28$) represented the availability of need based latest softwares in the computer labs.

Facilities were Not available

Mean response value of students ($M=2.46$, $SD= 1.15$) illustrated the system to frequently added new version of books in the library was not available. The mean response value $M=2.33$, $SD= 1.29$

indicated that access to digital library material was not available in the computer labs. The mean response value ($M=2.41$, $SD= 1.48$) showed that facility of photocopy was not available in the library. The mean response value ($M=2.27$, $SD= 1.42$) found that latest equipments were not available in the science labs.

The mean response value ($M=2.36$, $SD= 1.11$) showed the assurance of safety measures in the science labs. was not available.

Differences

Regarding physical facilities, indicates analysis between responses of university students in the disciplines of arts and science. To distinguish the observations, t- test for independent samples was used. It exposed there was significant difference ($t= -8.74$, $p=0.000$) about physical facilities as collective scores with large effect size (0.54) and its sub components i.e., library, science and computer labs. Science students' mean ($M = 3.82$, $SD = 0.70$) was greater as compared to arts students' responses ($M = 3.43$, $SD = 0.75$) as concerned physical facilities. It was accepted that mean achievement scores of science students' were greater as compared to the arts students' observations regarding sub aspects of physical facilities.

Regarding physical facilities. To distinguish results, t-test for independent samples was used. Results exposed that difference for statistically substantial ($t= -2.73$, $p=0.006$) regarding physical facilities as overall scores with small effect size (0.20) and its sub components i.e., library and computer labs. except science labs. Mean response scores of private sector arts students' ($M = 3.55$, $SD = 0.73$) was higher than public sector arts group ($M = 3.40$, $SD = 0.74$) students of master programs responses regarding physical facilities. It was conspicuous that mean response scores of private sector arts students' were greater as public sector arts students' of

master programs responses about library and computer labs. Regarding physical facilities, to distinguish results, t-test for independent samples was used. Results exposed that difference for statistically insignificant ($t= 1.40, p=0.162$) involving public and private sector science students' feeling regarding physical facilities as overall scores with large effect size (3.76) and its sub components i.e., library, science as well as computer labs.

Both difference (Students and Teachers)

The difference involving students as well as teachers' views regarding physical facilities to distinguish views, t-test for independent samples was used. Consequences reflected that difference was statistically substantial ($t=3.55, p=0.000$) regarding physical facilities as overall scores and its aspects i.e., science labs. as well as computer labs. except library. It was depicted that mean achievements scores of students ($M = 3.60, SD = 0.73$) were greater as compared to teachers' ($M = 3.50, SD = 0.76$) opinions regarding science labs. as well as computer labs. Quality assurance Agency (QAA), Quality Assurance Department (QAD) and Higher Education commission (HEC) all are relevant Pakistani Agencies, which are working consistently of both sectors i.e. public and private to supervise, guide and facilitate the universities of Pakistan for developing quality assurance practices.

Interviews of Directors (QECs)

Directors of QECs in response to this question "*How do you ensure the maintenance of quality physical facilities in the university*" replied that quality of physical facilities is maintained through a monitoring committee, regular checking by the Directors and teachers reports. Moreover, some Directors described that with the help of evaluating the level of researches, incorporated

students observations and assessment system of teachers reports, we can see the status of physical facilities and can improve for the betterment of these resources.

Majority of the teachers, students and Directors opined that books, research journals, manuals for use of science labs. equipments for experiments and computers were available for teachers and students use in the universities. With regards to physical facilities, it was concluded that such facilities i.e. library, science labs and computer labs in Govt. universities were available but in universities of private sector these facilities were not up to the mark. Majority of the teachers responded positively that books and computers are available in the department of universities. It was concluded that the discipline wise science and arts teachers in public and private universities regarding physical facilities. This is great hurdles in the way of research culture. It is intensive desired that all the required facilities including library, science library and computers must be provided in the universities to boost up the Quality Assurance.

McKeachie (1976) [27] has also explained the use of laboratories' and its training for advanced research. Science labs must be equipped with new apparatus for reliable results, digitals library having the sufficient literature in each discipline. Computer labs. having latest software and hardware facilities enrich with fast internet facilities'. According to Lomte (2007) [24] opined that libraries play a vital role for intellectual, emotional and social development. The results of teachers and students from public and private sector universities are in favour that computers and new software are needed in the universities. That's why computer courses are teach in the universities, this concept was also delivered by National Education Policy (1998-2010). [14] According to Biggs (1979) [6] all learning process is a bond between motivation and environment where teaching and

learning process occurs. It needs in put, processes and out put: in put are the resources, which we use to get required results and out put is the result we gaining from the use of inputs. Gibbs, Mortan and Siljo, 1999;[13] Trigwell and Prosser, 1991). [41] Temporary learning depends upon the weak quality of learning and permanent learning based on use of quality infrastructure and learning in peaceful environment (Osburn, 2005). [33] Finally, it is derived from the data that students take admission in private sector universities and perceived research is better to life as compared to public sector universities. Sabzwari, Kauser, & Khuwaja (2009) [40], however, justified that in Pakistan, students are more motivated to take admission in public sector universities as compared to private sector universities.

Recommendations

It was suggested that the teachers, students and Directors of QECs of universities that Quality Assurance Practices (QAP) can be accelerated by thinking the following steps: new edition of books regularly added in the library, digital library, facility of photocopiers, science laboratories manuals, latest equipments for science laboratories, strengthen the safety measures in the science labs and latest software in computer laboratories should be provided in the universities.

References

- Arcaro, J. S. 1997. *Quality in Education*. St. Lucie Press, USA. p.1-2. p.56-67.
- Ashcroft, K. & Foreman-Peck, L. (1995). *The lecturer's guide to quality and standards in colleges and universities*. London: The Falmer Press.

- Bamigboye, O.B. (2007). *Evaluation of Library Service: Delivery in Olabisi Onabanjo University, Ago-Iwoye, Nigeria*. *Library Management*, 28 (3), 152-62.
- Batool, Z., & Qureshi, R. H. (2007). *Quality assurance manual: For higher education in assurance, accreditation and the recognition of qualifications in higher education assurance: A selection of papers from the 3rd European quality Assurance forum*. at: [www.oecd.org/els.stats.edu_db/def_uae2.htm](http://www.oecd.org/els/stats/edu_db/def_uae2.htm).
- Batool, Z, Qureshi, R H. & Rouf, A, (2010). Performance evaluation standards for the thesis: Higher Education Commission.
- Biggs, J. (2003). *Teaching for Quality Learning at University Buckingham: The Society for Research into Higher Education and Open University Press*, ISBN 0-335-21168-2.
- Bogdan, R. C & Biklen, S. K. (2003). *Qualitative Research for Education: An introduction to Theories and Methods* (4th ed.). New York: Pearson Education group. (pp. 110-120).
- Brophy, J. E., (2001). *The Growing Importance of Staff Development*. (7th ed., pp. 464-479). New York, NY: Addison Wesley.
- CETUS (1997): *The Academic Library in the Information Age: changing roles*. (Discussion Series). Consortium for Educational Technology for University Systems, California State University, City University of New York, State University of New York, <http://www.gvsu.edu/library/librarylights/winter02/ChangingRoles.html>
- Creswell, J. W. (2003). *Research design: Qualitative and quantitative approaches*: Thousand Oaks, CA: Sage Publications.

- Crosby, P. (1979). *Quality is Free*, McGraw-Hill, New York.
- Earthman, G. I. (2002). *School facility conditions and student academic achievement*. Los Angeles: University of California's Institute for Democracy, Education and Access. (<http://www.ucla-idea.org>) *Quality in Higher Education*, 10(3), 181-195.
- Gibbs, S. Mortan & Siljo (1999). *Using assessment system strategically to change the way student learn*. In S. Brown and A. Glasner (ed.) *Assessment system matters in higher education - choosing and using diverse approached*. Buckingham: Open University Press
- Government of Pakistan (1998). *National education policy 1998-2010*. Islamabad: Ministry of Education.
- Harman, G. (2007). *"University Links and Research Commercialization: Challenges for University Management"*. Paper presented at the Seminar on Supporting and Developing Research and Knowledge Transfer, Gleddoch House, Lang bank, Scotland, 28 to 29 November. Retrieved 15 December 2008 from <http://crl.gcal.ac.uk/docs/MassHE/Grant.Harman.final.pdf>.
- Harvey, L. and Green, D. (1993) *"Defining Quality"*, *Assessment system and Evaluation in Higher Education*, 18 (1), 9.
- Higher Education Commission. (2009). *Higher Education Commission Report 2002-2008*. HEC. Islamabad: Government of Pakistan.

- Idrusus, N. (2003). *Transforming quality for development: Quality in Higher Education*, 9 (2), 141-150.
- Isani, U. A. G., & Virk M. L. (2005). *Higher education in Pakistan: A historic and ISO (n.d.). International Organization for Standardization: ISO: 9000.*
- Kantio, J. (2008). *Quality Assurance at Higher Education Institutes: The role of an educational initiatives*. Retrieved on August 10, 2008 from WorldWide Web.
- Koslowski F. A. (2006). *Quality and assessment system in context: A brief review. Quality Assurance in Education*, 14(3), 277-288. doi:10.1108/09684880610678586.
- Lemaitre, J.M. (2008). *Impact of quality assurance processes in higher education institutions: .Quality Assurance in Higher Education .HEC-Printing Press.*
- Lim, D. (2001). *Quality assurance in higher education: A study of developing countries*. Alder shot: Ashgate.
- Lomte, S. (2007). *Knowledge Management for e-resources: Indian Journal of Library and Information Science*, 1, pp. 3-5.
- Malik S. R. (2002). *The System of Education in Pakistan*. National Book Foundation Islamabad.
- McKimm, J. (2003). *Assuring quality and standards in teaching*. In H. Fry, S. Ketteridge & S. Marshall (Eds.), *A handbook for teaching & learning in higher education: Enhancing academic practice* (2nd ed.). London: Kogan Page Limited.

- McKeachie, W. (1976). Psychology in America's bicentennial year. *American Psychologist*, 31, 819-833.
- Nagata, H., Satoh, Y., Gerrard, S., & P. Kytomaki. (2004). *The Dimensions That Construct: The Evaluation Of Service Quality in Academic Libraries*. *Performance Measurement and Metrics*, 5 (2), 53-65.
- Nejati, M., & M. Nejati.(2008). *Service Quality at University of Tehran Central Library*. *Library Management*., 29 (6 & 7), 571-582.
- Niazi, H. K.& Mace, (2006). *The contribution of the Private Sector to Higher Education in Pakistan with Particular Reference to Efficiency and Equity: Post-Doctoral Study (unpublished) at Institute of Education, University of London, UK.*
- Ogundare, S. F. (1999). *Community utilization of school facilities: An aspect of school community relationship in Nigeria*. *Journal of the National Institute for Educational Planning and Administration*, 29(1), 115-121.
- Olagboye, A. A. (2004). *Introduction to educational administration planning and supervision: Ikeja: Joja Educational Research and Publishers Ltd.*
- Osburn, C. (2005). *Academic Research and Library Resources: changing pattern in America*. Westport : Greenwood Press, 1979.
- Ondo: *National Institute for Educational Administration and Planning (NIEPA).organizations: Research in Post-Compulsory Education*. 2(1), 29-45.

- Osburn, C. (2005). *Academic Research and Library Resources: changing pattern in America*. Westport : Greenwood Press, 1979.
- Sanusi, B. Y. (1998). *Teachers job performance stress as a correlate to job satisfaction in selected Secondary schools: in life Central Local Government zone of Osun State*. Unpublished master thesis, Obafemi Awolowo University, Ile-Ife, Nigeria.
- Sierpe, E. (2004). *Managing the Information Revolution: Library Management, The Control of Prescriptive Technologies, and the Future of Librarianship*. *Library Management*, 25 (4& 5), 177-182.
- Statistical Information Unit. (2010). *Higher Education Commission, Government of Pakistan*, pg.04 and 10. (www.hec.gov.edu.pk).
- Strikanthan, G. & Darlymple, J.F. (2005). *Implementation of a holistic model for quality in higher education*. *Quality in Higher Education*, 11 (1), 69-81.
- Sabzwari, S., Kauser, S & Khuwaja, A. K. (2009). *Experiences, attitudes and barriers towards research amongst junior faculty of Pakistani medical universities: ,BMC Medical Education*, 9 (68), available at <http://www.biomedcentral.com/1472-6920/9/68>.
- Trigwell, K. & Prosser, M. (1991). *Relating learning approaches, perceptions of context and learning outcomes*. *Higher Education*, 22 251 - 266].

- Ueno, A. H. (2008). *Which Management Practices are Contributory to Service Quality?* International Journal of Quality & Reliability Management, 25 (6), 585-603.
- Vroeijenstijn,A.I, (1995). *Improvement and accountability: Navigating between Scylica and Chaybdis*. London: Jessica Kingsley.
- Wang, M. (2007). *Measuring e-CRM Service Quality in the Library Context: A Preliminary Study*. The Electronic Library, 26 (6), 896-911.