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RUMI – AN EDUCATIONIST OF ALL TIME



It was nearly eight hundred years ago that a Sufi poet of Turkey had described the essence of education in the following verse:

<i>ì</i> c	مارے	رنى	تن	مر	IJ	علم
بور	یارے	زنى	دل	حر	l,	علم

(If you acquire education for the sake of your physical structure, it is just like a snake; And if you adopt knowledge and learning for the uplift and purification of

your heart, it will be a friend.)

This unique, unparalleled and universal idea, indicated in a hearttouching verse, is owned by none but Maulana Jalaluddin Rumi (1207 – 1273), who happened to be an educationist of all time. It was the Maulana who had inspired a number of Western scholars of repute, such as R.A. Nicholson, AJ. Arbery, Jonathan Star, Coleman Bark, William Chittick, Hadland Davis, Myriam Harry, E. H. Whinfield and Annemarie Schimmel. Even Allama Iqbal, the dreamer of Pakistan and poet of the East, has declared himself to be a disciple of Rumi:

کرد	اكبر	IJ	خاک	رومي	<u>, .</u>
كرد	لغمير	ł	جلوه	غبارم	از

(The saint Rumi has changed my dust into an elixir; From my dusty stock he has carved out splendiferous figure.) It is an irony of fate that while describing the numerous peculiarities of Rumi's poetry, we totally ignore the other qualities hidden in his life and work. Amidst them, the most noteworthy is related to *Education*.

If we thoroughly go through the life history of Jalaluddin Rumi, we may find that he belonged to a family having great scholars and educationists. While his grandfather, Hussain Balkhi, was a great mystic scholar, his father Shaikh Bahauddin Valad had always been recognized as one of the noted scholars of the Muslim world. The noted scholar Shaikh Fariduddin Attar had a great respect for him. Shaikh Baha Valad used to impart education not merely to the people of Balkh, but to all the inhabitants of numerous cities where he went as a migrant. The king, Khwarizm Shah, was also his disciple and frequently visited him only to listen his thought provoking lectures.

On the invitation of Seljuk ruler, Alauddin Kaikobad, the Shaikh went to Konya where a school was established by the king, so as to enable him to impart education to the students of the region. This duty he performed till his death, and through dedicated efforts he illuminated the whole kingdom with the light of knowledge and learning.

Rumi was fortunate enough to be a son of such a great scholar. He even received his education from Shaikh Valad. During family's stay in Kirman, the young Rumi used to attend his father's classes. Rumi was so much inclined to get higher education that he went to Damascus and Aleppo – far off places – only because in those periods these were considered as the great centres of learning higher education. At that the time, Rumi was only 23 years old. It is interesting to know that he used to teach numerous disciplines while a student.

Following Shaikh Baha Valad's death, gathered around Rumi hundreds of his father's disciples who looked at him as the sole intellectual heir and the real source of education. Now, Maulana Jalaluddin Rumi had emerged as a great scholar and teacher. He was frequently visited by the students who used to come from distant parts of the Islamic countries.

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It may be interesting to note that wherever the Maulana went, he was accompanied by thousands of his disciples. From *Madresa* to mosque, from residence to the market and from public bath to the orchards, the students always used to accompany this outstanding teacher and benefited a lot from his lecture which Rumi delivered while riding on the horse back. It was just a non-formal way of education adopted by this great Persian poet about 800 years ago.

Though this great teacher of the time retired to a secluded place after meeting with Shams-i-Tabriz, and spending the whole time in prayer and devotion, yet he didn't leave the sacred duty of imparting education. It was through his famous *Mathnavi* that he gave lessons on almost all topics pertaining to life. In the modern era, psychology is said to be the true method of imparting education. But in the mid 1200s, Jalaluddin Rumi was such a scholar who gave versified lessons duly coted with psychological pattern.

The personality of Rumi is dignified as a great poet, philosopher, teacher, thinker and mystic who reached his zenith and spiritually ruled over the Muslim world during the first half of the thirteenth century while the whole Europe was still experiencing the darkest days of *fanaticism*. The noted educationist Edward G.Brown had made no mistake while paying his tributes to Rumi in such an appealing way:

'He was undoubtedly the most eminent Sufi poet that Persia had produced, while his mystical Mathnavi deserves to rank amongst the great poems of all' time."

> Dr. Mahmudur Rahman Editor

The UNESCO has chalked out a comprehensive programme to celebrate the eight hundredth birth anniversary of Maulana Rumi. On this auspicious occasion, AIOU also pays tributes to Rumi through this editorial. . • .

FOCUSING STUDENT SUPPORT SERVICES FOR QUALITY ASSURANCE IN OPEN AND DISTANCE LEARNING (ODL) SYSTEM

By Prof. Dr. M. Zafar Iqbal[®] Miss Afshan Huma^{**}

Preamble

There is a noteworthy growth of quality assurance (OA) activities aimed at improving higher education going on at institutional, national, regional, and global levels. Agencies, such as European Network of Quality Assurance (ENOA), International Network of Quality Assurance Agencies for Higher Education (INOAAHE), the United Nations Educational, Scientific and Cultural Organization (UNESCO), Pakistan Institute of Quality Control (PIQC) and Quality Assurance Agency of HEC, typically work together and share information about quality standards, benchmarks and best practices. The quality assurance has been defined as "systematic management and assessment procedures adopted by higher education institutions and systems in order to monitor performance against objectives, and to ensure achievement of quality outputs and quality improvements" (Harman, 2000). The quality assurance facilitates recognition of the standards of awards serves public accountability purposes, helps inform student choice, contributes to improved teaching learning and administrative processes and helps disseminate best practices with the goal of leading to overall improvement of higher education systems.

However, setting common standards and evaluation criteria must take into account diversity and plurality of higher education within national, as well as regional systems. The higher education institutions are challenged to develop new visions, new forms of collaboration across institutions and nations (1+arman, 2000).

In the context of education, 'quality' has been placed high on the agenda of educational leaders, policy makers, and practitioners, and is in line with consumers' ever increasing demand for quality education. In many countries,

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stakeholders have been placing high expectations on their educational systems, compelling institutions to produce higher quality products, services, processes, and by extension, students and graduates. Governments have also been seeking increased levels of accountability from their publicly funded educational institutions. Faced with the globalization of the world economy, coupled with associated challenges of producing high-caliber human resources needed to effectively participate in the global economy, national stakeholders have voiced serious concerns about the 'quality' of their educational provisions to ensure their competitiveness. Thus, it is clearly imperative that educational institutions continuously improve the quality of their educational provision (UT, 2002).

Quality Assurance in Open and Distance Learning

The terms open learning and distance education represent approaches that ocus on opening access to education and training provision, freeing learners rom the constraints of time and lace, and offering flexible learning opportunities to individuals and groups of learners (UNESCO 2002). Open nd distance learning is one of the most rapidly growing fields of education, nd its potential impact on all education delivery systems has been greatly ccentuated through the development of information technologies. The term pen and distance learning reflects both the fact that all or most of the teaching is onducted by someone removed in time and space from the learner, and that he mission aims to include greater dimensions of openness and flexibility, whether in terms of access, curriculum or other elements of structure. Open nd distance learning systems can usually be described as made up of a range of components such as: the mission or goal of a particular system, programs nd curricula, teaching/learning strategies and techniques, learning material nd resources, communication and interaction, support and delivery systems, tudents, tutors, staff and other experts, management, housing and equipment, nd evaluation.

The quality has always been an issue in Open and Distance Learning. Since he societies evolve from the post-industrial era to the information age, listance education has also been similarly evolving. For instance, interactive communication between and among students and tutors is now being emphasized (Belawati, 1999). It is within this access to education paradigm that quality assurance' has become one of the fundamental aspects in planning and nanaging open and distance learning (ODL) provisions.

It is more than ever clear that open and distance learning will be ac important element of future education and training systems. It is approaching acceptance within mainstream education and training in such a way that it will make up part of the repertoire of most educational institutions in the future. (UNESCO, 2002) Furthermore, there is a significant trend towards intensifying globalization. Institutional and inter-governmental co-operation is increasing, and the global classroom has been realized in quite a number of projects, particularly in connection with emerging global communications networks. Governmental leadership concerning network development and access will be essential in this sphere. Since the 1990s, quality assurance in distance and higher education has gained serious attention by institutions, stakeholders and scholars. In response to QA line of inquiry, institutions have begun to re-define and re-orient their institutional missions and strategic visions to incorporate and address quality issues. QA has now reached an important turning point and is influencing DE institution's management strategies and cultures. Numerous reports have been published to share ideas, experiences, and articulate the 'how and how not to' and 'best practices' of OA implementation in distance education contexts from around the world (Deshpande & Mugridge, 1994; Tait, 1997).

Stakeholders interested in ODL have become increasingly interested in quality assurance issues. The learners are demanding better quality educational services and provisions. This means ODL providers must pay close attention to quality in terms of products, processes, production, delivery systems, and philosophy (COL, 1997). The 'total quality approach,' which covers not only products, but services and processes as well, is a very useful methodology that holistically examines the process of ODL as an integrated whole (Zuhairi, Purwanto and Isman, 2002).

Indeed, it is much easier to judge the quality of a tangible product of a course syllabus and curriculum, than of less tangible aspects such as learning process, teamwork, or management (COL, 1997). Clearly, quality in ODL covers a number of aspects, which along with the physical products, includes pedagogical processes, production and delivery systems, and philosophy (COL, 1997). The quality of products includes course materials, number of graduates, examination pass rates, admission in further studies and so forth. The quality of processes covers areas such as learning and teaching processes, advising students, coordinating external course and test item writers,

networking with regional offices, managing student information. The quality of production and delivery systems includes course production, print and multimedia production, test item production, scheduling, warehousing and stock control, getting materials to students, and broadcast transmissions. The quality of philosophy covers such things as ODL vision, mission and policy statements, institutional culture, governance, corporate culture, and public image (COL, 1997). The quality of processes is more difficult to address than products. Various kinds of learning supports may be provided by institutions like tutorial services, organized study groups, library access, and access to learning resources. Indeed, most ODL students are at liberty to decide for themselves whether or not to use learning resource facilities (COL, 1997) and in some cases, students cannot access learner support facilities - i.e., living far from learner support facilities (Fozdar, Kumar and Kanan, 2006). The challenge for ODL institution, therefore, is not only to ensure learner support that is both accessible and relevant, but also to encourage students to participate in and use of support systems that ensure quality-learning. Management and decision-making processes are similarly difficult to assess. Indeed, it takes some time to observe how the quality of 'decision-making' influences a given institution (COL, 1997).

In terms of philosophy, the institution's vision, mission, and policy documents are often well-stated and tend to be widely circulated among staff. The problem, however, is 'how' staff actually understands the meaning of these documents (Daft, 2006). The challenge for ODL leaders therefore, is to engineer organizational change in such a manner that staff members focus their time, energies, and priorities on achieving institutional goals and missions. Consultation and communication between institutional leaders and staff is necessary to socialize and internalize these ideals, making them part of the organizational culture based on QA principles. Implementation of the institutional missions, polices, and strategies requires constant follow-up and guidance from the top level leaders (Daft, 2006).

Implementing QA principles in a DE institution is a monumental task. It takes a great deal of effort, patience, socialization and training to ensure that innovation is a productive effort. People in organizations undergoing change will talk about quality, but may not know exactly what *quality* means, specifically how to initiate, provide and improve upon quality processes, products, and services continuously. Changing an organization's mindset is one of the biggest tasks when undergoing 'innovation'. Such change requires a great deal of courage and commitment of the top leaders of an institution (Daft, 2006). Implementation of QA implies change of work and culture of staff at all levels. Everyone in the organization must think about – and more importantly, do something – to effect quality improvements in every step of their work activities. In theory, drafting organizational change and improvement could be easy. In practice, however, leading people towards change is a formidable task. People tend to maintain status quo, and resist new ideas, even if these ideas are to improve their professional practice (Daft, 2006).

Hence on one hand the emphasis on self learning is a great strength of open and distance learning, but on the other hand it means that materials, advice and support must be relevant, reliable and consistent enough to meet the quality standards. New, and often inexperienced, providers moving into distance learning may not understand how to monitor and maintain quality. Methods of quality assessment familiar from face-to-face education, in schools and universities, are not always helpful in ODL. Yet, quality assurance in open and distance education, when done properly, is both more thorough than for traditional, face-to-face methods. Different measures of quality are available, not just pass and participation rates, but a variety of more sophisticated standards and procedures. Whether it's e-learning or a correspondence course, home study or work-based learning, quality assurance, when undertaken by experts, can be both robust and reliable. (ODL -QC, UK 2007) The following are the standards agreed by ODL QC (UK) as necessary to ensure good quality in open or distance learning, whether it is carried out by correspondence courses, e-learning, blended learning, home study or workbased learning. The original Standards were adopted in September 1999, and revised in February 2000. The Standards are subdivided into six sections:

- 1. Outcomes
- 2. Resources
- Support
- 4. Selling
- 5. Providers
- 6. Collaborative Provision

Standards for Student Support in ODL

- A. The provider maintains and demonstrates a clear commitment to helping learners achieve their educational goals.
- B. The learner has overall responsibility for his or her own learning, and is informed that the provider's role is supportive.

Notwithstanding this, the provider offers to make a study agreement with the learner which specifies:

- 1. the nature and scope of the course;
- 2. the mutually-agreed anticipated outcome of the course, including any individual variations;
- 3. the services to which the provider is committed;
- 4. any disclaimers which protect the provider against changes in external circumstances which prevent him from delivering those services or realising the intended outcome;
- 5. the rights, obligations and commitments expected of the learner;
- 6. the financial agreement between the learner and the provider;
- 7. any allowance for special needs.

These matters may be covered by more than one document. The learner is made aware that this agreement may be legally enforceable.

C. Support offered is sufficient to meet the reasonable needs of learners, encourage the learning process and facilitate successful completion of the course.

In particular:

- a. Guidance on study skills is provided for all learners.
- b. Tutorial support is normally integral to all provision. Where this is not the case, the course material or other provision is capable of achieving its stated outcomes without such support, and the absence of such support is clearly indicated in all publicity and course material.
- c. Where tutor support is offered, a good tutor will:
 - 1. have a sound understanding and up-to-date knowledge of their subject;
 - 2. know how learners learn, and help their students to learn how to learn;

- 3. communicate enthusiasm for the subject, and for learning, to their students;
- 4. show sensitivity to individual differences in ability and learning styles;
- understand the special requirements of open and distance learning;
- 6. communicate clearly, consistently, conscientiously, constructively and quickly with their students;
- 7. encourage their students at all times;
- provide feedback on overall progress in relation to the agreed outcome of the course;
- make effective use of feedback from learners to enhance their own performance as tutors.
- d. Assessments are designed to support and encourage the learning process as well as to monitor and establish the level of ability acquired by the learner.
- e. If a significant element of the provision is technology-based, the provider ensures that the learner understands the system requirements, and has access to appropriate technical advice.
- f. Appropriate administrative and academic advice and guidance is available to all learners. All enquiries from learners are handled promptly and sympathetically by a competent person.
- g. Career counselling and placement services, if offered, do not make exaggerated claims.
- h. Access to appropriate supplementary resources is facilitated.
- i. Face-to-face or hands-on training is provided wherever it is a necessary to achieve the stated outcome of the course.

D. Support is offered on a prompt, timely and wherever possible personal basis

Access to tutors is on a sufficient, regular, individual and flexible basis, which is known to both tutors and learners. Appropriate schedules for the submission and return of tutorial assignments are adopted and communicated to learners. Turnaround times are kept to a minimum.

E. Support offered is appropriate to the level of the course.

Peer group interaction and support for distance learners is encouraged and facilitated wherever possible through newsletters, new technologies or other means. Mentoring, and mentoring schemes, are encouraged and facilitated.

F. The provider has adequate procedures to handle any difficulties between the learner and the provider, and learners are made fully aware of all the avenues open to them to resolve those difficulties

For example, if difficulties arise among a learner and a tutor, and an alternative tutor is available, this alternative is offered to the learner. Similarly, wherever possible, a learner has more than one point of access with the provider (for example through a tutor, or through an admissions officer or the principal), so that difficulties between particular individuals, should they arise, do not impede the learning process. In cases of serious difficulty, if no alternative is available, ODL QC can act as an access point.

G. Learners are encouraged to complete their courses. Progress is monitored, and learners are provided with prompt and helpful comments on their progress in relation to learning expectations and goals.

In particular:

- 1. Early contact with a learner is initiated by the provider whenever difficulties occur arising from the non-submission of assignments by the appropriate deadline, or the submission of unsatisfactory work. Providers are encouraged to investigate cases of learner withdrawal from a course.
- 2. Care is taken to support and encourage learners who submit unsatisfactory work; learning support is only withdrawn after all reasonable efforts have been made to overcome their problems.
- 3. If the provider has significant doubts that the learner is ready to undertake a particular examination or piece of practical work, the learner is advised of those doubts. In cases where any risk to third parties is involved, the provider must reserve the right to prevent the learner from undertaking that piece of work, and the learner must have been informed of that right prior to enrolment.
- 4. All feedback maintains an appropriate balance between encouragement and realistic appraisal, and does not raise false expectations in the minds of learners.

Practices of Student Support Services at Allama Iqbal Open University

All academic departments of AIOU make specific arrangements for student support throughout the academic sessions. The programme and course coordinators are responsible for in-time information delivery and responding to student queries. They have a two way coordination - on one end the coordinated with the administrative sections of the university and secondly with the students. Major sources of communication being used by the coordinators are postal services, telephone as well as emailing. These facilities are provided to all the coordinators by the University to ensure the in-time delivery of informations. The regional network of the University Is also responsible for providing the tutorial support to the students for preparation of their assignments and resolving the learning difficulties. There is a separate Directorate of Students Advisory and Counseling Services. It was established at AIOU in 1984, and is working as an independent Directorate of Students Advisory and Counseling Services since August, 1994. Its main objectives are to provide academic assistance to the students and enabling them to continue their course of studies smoothly. It also aims to remove the hurdles and bottlenecks which can impede the progress of the students during the semester.

Major Activities

1. Informing: Providing clear, accurate and unbiased information

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- 2. Advising: Helping individuals to evaluate their needs and the available options by offering suggestions based on knowledge and experience.
- 3. **Counseling:** Working with individuals in a non-directive way to help them explore and assess their needs and the available options.
- 4. Coaching: Structuring learning experiences for individuals to gain new skills or knowledge.
- 5. Advocacy: Taking action on behalf of and with the agreement of individuals.
- 6. **Problems Solving:** Trying to find out solutions to the problems of the students.
- 7. Coordination with Overseas Students: Coordination of Overseas students from admissions to examinations. The

University offers its educational programs only in the Kingdom of Saudi Arabia, Kuwait, Qatar, Abu Dhabi, Dubai, Sharjah, Sultanate of Oman, Bahrain. The Directorate of Students Advisory & Counseling Services has also been assigned the task of co-ordination of Overseas Students. Overseas Cell was shifted to the Directorate of Students Advisory and Counseling Services in August, 1996.

- 8. Feed Back to System: Alerting organization to factions or problems experienced by students, which require changes in the system.
- 9. Students Extra Co-Curricular Activities: Coordinating Students Extra Co-curricular Activities in the Regions and main campus.
- 10. Financial Assistance to deserving students: The Director, Students Advisory Services is also the Secretary of Central Assistance Committee, constituted to recommend the case of deserving students for financial assistance.
- 11. Information Lobby: Since last two years, the information lobby has been setup in the Gateway Block which has been equipped with all relevant information regarding system and student's data base. Data base has been provided to the staff with the courtesy of Computer Science Department. Assistance regarding completion of admission forms, assistance in the selection of courses, problems and information regarding fee tariff is provided to the applicants. The main staff of this Directorate also assists the Information counters during the period of admission i.e. February-April, and August - October.

The Current study

Allama Iqbal Open University is providing education in no-formal mode to more than five hundred thousand students per semester through Open and Distance Learning (ODL) system. A study was conducted to assess the quality of student support services being provided by AIOU. The major objective was to ensure the quality of student support services and to recommend improvements in the weak areas. This University has a network of 32 regions all over Pakistan. The two regions selected for the study were Islamabad and Rawalpindi. The two regions are closely linked with the main campus of the University and are supposed to be facilitated at the best. Islamabad region has an enrollment of approximately 50000 students in different courses while Rawalpindi regional office caters more than a hundred thousand students per semester. It is worth noting that all the regional centers work under one directorate of regional offices and is bound to adopt the same procedures and methods. To assess the quality of student support services the tools already developed by the Quality Assurance Agency of HEC were revised to be used for ODL system specifically. Following were the main parameters for evaluating the student support services in the two regions:

- Communication Services
- Course Content and Organization
- Tutorials and Tutor Support
- Learning Environment and Teaching
- Effective Use of Media
- Information Services
- Welfare and Student Support

A pilot test of the tool was conducted on a sample of 10 students and the tool was revised with the help of experts in AIOU. Then a random sample of 200 students enrolled in different postgraduate programmes of Faculty of Education at AIOU, was selected. 100 students were from Islamabad region and another 100 from Rawalpindi. Percentage scores of the two groups were calculated for each parameter separately. While t-test for testing the significance of difference in mean scores was applied to draw inferences. The calculated value was 3.07 which doesn't fall in the critical region, therefore it was concluded that there is no significant difference in the mean scores of the two regions–Islamabad and Rawalpindi.

Findings of the Study

Following were the major findings of the study:

Table 1Quality of Communication Services

	I. Communication Services	Islamabad Percentage Scores	Rawalpindi Percentage Scores
1 51	In-time delivery of course materials and assignment papers	78%	82% 🔺
2	Continuous communication from tutors	34%	23%
3	In-time information about tutorial schedule	79%	64%
4	In-time information about workshops	83%	87%
5	In-time information about examination	89%	88%

Within the communication services the weakest area found in both the regions was communication from the tutors while all other features were satisfactory.

Table 2Quality of Content Organization

	II. Course Content Organisation	Islamabad Percentage Scores	Rawalpindi Percentage Scores
6	The learning outcomes (course objectives) were clear	56%	62%
7	The Course workload was manageable	79%	85%
8	The Course was well organized	84%	88%

It was found that the students were not very clear about the learning outcomes or the course objectives though the objectives are written in every course book and even in the beginning of each unit. While the organization and workload is satisfactory.

Table 3 Quality of Tutorials and Tutor Support

III. Tutorials and Tutor Support		Islamabad Percentage Scores	Rawalpind Percentage Scores
9	The tutorials were useful	21%	19%
10	I was happy with the amount of work in tutorials	17%	15%.
11	The tutor dealt effectively with my problems	16%	11%

Tutorials and tutor support was found to be over all a weak area in both the regions and majority of students showed dissatisfaction with it.

Table 4Quality of Learning Environment and Teaching

IV. Learning Environment and Teaching (during workshops)		Islamabad Percentage Scores	Rawalpindi Percentage Scores
12	A good balance of learning and teaching methods	56%	61%
13	The learning and teaching methods encouraged participation	45%	47%
14	Lectures/seminars/workshops were linked	72%	69%
15	Teaching rooms were satisfactory	78%	27%

Students mostly showed satisfaction with the teaching learning activities but the participation feature was not very strong and majority of the students of Rawalpindi region were not satisfied with the conditions of teaching rooms.

Table 5 Quality of Use of Media

	V. Effective Use of Media	Islamabad Percentage Scores	Rawalpindi Percentage Scores
16	Print media used effectively	89%	91%
17	Radio Broadcast used effectively	00%	00%
18	Television transmissions used effectively	00%	00%
19	World wide web / internet used effectively	00%	00%

It is noteworthy that only print media is being used effectively in the programs / courses of Education at postgraduate level.

Table 6Quality of Information Services

	I. Information Services [Library and IT] Satisfaction with the experience of:	Islamabad Percentage Scores	Rawalpindi Percentage Scores
20	Library and IT facilities	87%	89%
21	Library opening hours	62%	54%
22	The range and availability of books, jour other Library Resources	89%	87%
23	Availability of online learning and teaching resources	00%	00%
24	Availability of computers on campus	86%	79%
25	Library and IT Training and advice	00%	00%

Majority of the students showed satisfaction with the library and IT facilities but resources of postgraduate programs are not yet available online and there is also no provision of trainings for the students from university.

	II. Welfare and Student Support (or equivalent) Satisfaction with the experience of:	Islamabad Percentage Scores	Rawalpindi Percentage Scores
26	Academic and pastoral support from my Adviser of Studies	12%	09%
27	Student Information and Support Services	45%	56%
28	Students Association Advice & Welfare	36%	22%
29	Registry Services (admissions and registration process)	90%	95%
30	Careers Advisory Service	00%	00%

Table7Quality of Welfare and Student Support

The students showed high satisfaction with the admission and registration processes but academic and pastoral support as well as advice and welfare services were found to be the weak areas. Career advisory is not at all evidenced to be practiced.

Conclusion

The weak and strong areas of the two sample regions are very similar to each other and the difference of means was not found to be significant. Hence it can be concluded that both the regions - Rawalpindi and Islamabad are utilizing the available facilities equally and are providing same level of student support services to the students. In both the regions it can be clearly viewed that communication services at the part of university itself are working well but there is a need of improvement in communication from the tutors. It should be ensured by the regional offices that the tutors may communicate with the students regularly. Tutorials and tutor support should have been a strong area but it needs much improvement and a strong monitoring and evaluation is required to remove its weaknesses. Along with the tutorials the workshop component should also be planned and organized in such a manner that student participation is maximized and physical environment should also be comfortable enough to support student learning. The university is now well equipped with the multimedia resources therefore trainings should first of all be provided to the faculty members and then each programme should use the media resources effectively. Recently the Institute of Educational Technology arranged workshops for the faculty members for script writing and production of Radio programmes and a similar training is being planned for TV programmes too. The information services should not only be available on campus, but the resources should be made available for the distant students off the campus. Faculty of Education is now in the process of preparing CDs of its course materials. Directorate of Students Advisory and Counseling Services along with the academic departments should not only provide the guidance on student request but seminars and career counseling sessions should be organized. It is strongly recommended that such quality assurance studies can be very helpful to identify the weak and stronger areas of higher education. Therefore, the quality assurance practices should become a regular feature of higher education institutions.

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COMPULSORY SCHOOL ATTENDANCE IN NIGERIA WHAT ARE THE REASONS FOR WASTAGE AMONGST PUPILS

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Abstract

The study investigated reasons for wastage amongst primary and secondary school pupils in Nigeria, where free and compulsory school attendance policy is implemented. Five questions (four (4) answered and one (1) hypothesized) were raised to direct the thrust of study in the Edo State whose population comprised all the students in 1,831 schools (1516 primary schools and 315 junior secondary schools). Edo State was used as a case study because it is a typical microcosm of Nigeria. Collection of data for the study was done with a questionnaire named "School Children Reasons for Constituting Wastage to Schools Questionnaire, REDROOUE" administered on all the school pupils that constituted the study sample. Administration of the questionnaire lasted for thirteen (13) weeks (the entire first term of 2005/2006 school year) after which 27,054 pupils' responses (or 91.07 percent) out of 29,707 were found useable for analysis. The results of analysis show that the problems of inadequate teachers; teachers' poor attitude to work; poverty; bullying unstable school calendar; poor supervision of teaching and learning including parents' wish are the significant reasons for wastage. The findings further revealed that male, old, poor and urban - resident pupils rate the reasons for wastage significantly higher than other categories of pupils. Based on the findings, it was concluded that the problems of unstable school calendar, poor supervision of teaching and learning, inadequate teachers and facilities make the enforcement of free and compulsory school attendance policy in Nigeria to be impossible. It was, therefore, recommended among others that

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adequate teachers and learning facilities be provided in schools. Scholarships and bursary awards should also be provided to identified indigent students to mitigate their private cost of schooling.

Introduction

Nigeria is a large country having a land mass of 923,768 sq km, and inhabited by people that are estimated to be over 130 million. In addition, the country is endowed with diverse natural resources, such as vegetation, minerals, wildlife etcetara. Paradoxically, the country is poor and not a developed one, as about 54 percent of the population live below \$2 per day (ICAN Report, 2004). The poverty in Nigeria is so grave that people engage in risky ventures (like armed robbery, prostitution, thurgery, advance fee fraud, kidnapping to mention many but a few) that are anti-development mainly for the purpose of survival. Determined to reverse the trend, government in 1977 identified and accepted education as *instrument par excellence* for effecting national development. Consequent upon this, a new National Policy on Education (NPE) was formulated with the import to empower every Nigerian for self reliance through the acquisition of critical skills and knowledge.

In order to give Nigerians access to education, particularly at the basic education level, education has been made free and compulsory since 1999. This marks the beginning of the deliberate efforts to boost enrolment in the Nigerian school system (Adeyemi, 2001; Aghenta, 2001; Baike, 2001; Obanya, 2001 and Taiwo, 1982). For example, school enrolment in 1980-81 increased from 13,777,973 to 16, 801,593 in 2000-2001 at the primary level while at the secondary level, it increased from 2,063, 371 to 6,482, 714 within a period of two decades. At the tertiary education level, enrolment similarly increased from 147,130 in 1980/81 session to 812, 036 in 2001/2002 school year (Federal Ministry of Education Report, 2004).

An increase in number of students registered in schools not withstanding, students soon after enrolment withdraw and then dropout of school eventually to constitute wastage. Several others that continue school attendance spend extra student year(s) before they are able to complete schooling. These repeaters also constitute wastage to the schools because they use the same resources (teachers, facilities and equipment) twice or more before they are able to progress from one grade level to another. In addition, repeaters occupy spaces, thereby making it impossible for new entrants to have access. These incidences of wastage (repetition and dropout) from observation are excersabated by the numerous problems that characterize the Nigerian educational system.

There is the problem of inadequate provision of educational inputs at all levels. Available requisite facilities such as classrooms, laboratories, libraries and workshops from observation are not only inadequate but ill-equipped. Most of these facilities in different parts of the country were provided prior to the launching of Structural Adjustment Programmes (SAP) in 1986. The implementation of SAP policies that have continuously depleted the value of the country's currency, the naira has made it to be increasingly difficult to finance the provision and maintenance of available facilities hence their various stages of dilapidation. The situation appears to be sordid as several classrooms lack roofs, windows, doors and furniture's for both teachers and students. In some schools, classroom walls are even observed to be falling apart, a situation that makes the teaching- leaning process to look frightening. It is even more worrisome as students from observation willfully vandalize already dilapidated educational facilities with reckless abandonment at the slightest provocation.

There is also the problem of acute shortage of teachers in many schools. For instance, only 429,075 teachers out of 514,750 (i.e.79 percent) needed at the primary and secondary school levels by year 2001, were available (Universal Basic Education Report, 2002). Apart from the fact that additional 85,675 teachers were required; those available, were not evenly distributed a situation that made many schools to lack teachers (Pessu, 2004). This probably explains why some schools are observed to have teacher-students ratios that exceed 1:40 prescribed by government policy. Such abnormal teacher-students ratios no doubt make teaching leaning activities difficult to manage.

Even though facilities and teachers are observed to be in short supply, available time for teaching is also grossly observed to be inadequate. For instance, Aghenta (2001) observed that students are not able to utilize more than 30 percent of the normal time allocated to teaching and learning because of frequent strikes. Teachers and other school support staff embark on frequent strikes to force employers pay salaries, fringe benefits and other entitlements. Even when entitlements are paid, strikes are embarked upon to force government to provide basic teaching and learning facilities.

Instability in school calendar arising from these frequent strike actions has also made management of the school system problematic. For instance, schools were closed unceremoniously because teachers under the auspices of Nigeria Union of Teachers (NUT) embarked on twelve different nationwide strikes within a spate of six academic sessions, 1994/95 to 1999/2000 (NUT Report, 2002). Since then, continued cases of strikes have been reported in different parts of the country. In Anambra State for example, the schools remained closed for 13 months while in Oyo, Lagos and Plateau States schools were closed for 3 months, 2 months and 8 months respectively between 2001 and 2002 alone. Recently, the nationwide strike under the auspices of Nigeria Labour Congress (NLC) over hike in price of petroleum products forced all schools to be closed again for more than 2 weeks in the first term of 2003/2004 school year. These frequent strikes, no doubt, cause instability in the academic calendar of the schools. In addition to creating crises in the management of schools, the problem has observably devastated public image of the Nigerian school system. Alli (2004:28) has aptly described the image of the public school system: in this way

... In the public school system, effective money donating Parents Teachers Association (P.T.A) is virtually non existent. In fact, in today's Nigeria, it is the poorest of the poor or those in rural areas that still patronize the public schools.

Supervision and inspection are very important management functions that can only be effectively performed when money, men and materials are adequately provided. These vital management functions are either lacking or poorly carried out in the schools. The reason for this situation lies in the fact that constraint has been imposed on school administrators by scarcity of funds to promptly reward teachers and provide basic teaching facilities. Meaningful teaching and leaning do not seem to take place in the schools as students are often sighted loitering during school hours while several others allegedly engaged in secret cult activities. The situation appears to be worrisome, as some stakeholders have expressed concern over observed deteriorating conditions in the schools. Nwadiani (2003:6) succinctly described the situation as:

... It does appear that our educational system has collapse. Children are not learning and teachers care not teaching. All the inputs into the educational

「そう」「新日子を読みたい」ので、「「「スイスティースを見解かった」「ステムのチャッチ」となって思いまたがです。 マスキャー

system are scare except students resulting in an environment that is very unconducive for teaching and learning.

Students that are discontented with the school system, could drop out of schools and many that are unable to cope with the rigours of hard-learning could fail and repeat classes. For instance, 29,622, 017 students (or 42.2 percent) out of 70,150,580 that enrolled in both primary and secondary schools in the Niger Delta area of Nigeria between 1990 and 1999, dropout of schools (NDDC Report, 2002). Report from Kaduna State according to Bahago and Waila (2000) also shows that 11,655 pupils out of 72207 (i.e. 16.14 percent) that enrolled in primary schools in 1995-96 school year alone dropped out of schools. In addition to this, report also shows that all the 15,329 Nigerians repatriated from different countries between 1995 and 2000, dropped out of schools at various levels and at different times (Nigeria Immigration Service Report, 2003).

The situation seems to be very frightening, especially with the emergence of new statistics. Out of 17.0 million children in Nigeria that enroll in primary schools every year, not more than 18.2 percent are able to make it to secondary school level. Only about 800,000 (or 25 percent) of the pupils enrolled in secondary schools are able to proceed to tertiary institutions. The statistics further shows that of the number that enroll in tertiary institutions, only about 150,000 (or 18.75%) eventually graduate (Federal Ministry of Inter-Governmental Affairs, Special Duties and Youth Development Report, 2004).

The above-mentioned problems have negatively impact on the students that they constitute wastage to the schools (lgbineweka, 2005; Adeyemi, 1998 and Nwadiani 1993). However, there are a couple of unanswered questions on why students constitute wastage to schools even when attendance is made free and compulsory.

The questions that need to be answered include:

- Are the reasons for students' wastage in schools where attendance is free and compulsory significant?
- Do male and female pupils significantly differ in rated reasons for wastage?
- Do old and young pupils significantly differ in rated reasons for wastage?
- Do urban and rural resident pupils significantly differ in rated reasons for wastage?

The need to answer these questions set the objectives for this paper that is hoped to be relevant for educational policy formulation, review and implementation.

Student wastage is, however, not perculiar to the Nigerian school system as several authors have reported varying rates of student wastage in different educational systems all over the world (Arulampalam;Naylor and Smith 2003, Passi, 1998; Brimer and Pauli, 1971; Brown, 1994; Cloonan 2000; Carron and Ta'Ngoc (1996) Fitzcharles, 2000 and; Galleta- Bruno 1995). Other researchers have, in addition, given diverse reasons for the incidence of wastage in the school system. One of such reasons is poverty. According to Ravallion and Wodon (2001); Deustsch (1998); Alderman, Behrman, Ross and Sabot (1995); Bangladesh Bureau of Statistics (1998); Basu (1998); Bhatty (1998) and Chiswick and Koutromanes (1996) increase in private cost of schooling predisposes school children to repeat class(es) and or dropout of schools. Obanya (2000) reported that in Nigeria, previous attempts to introduce or increase tuition fees in Nigerian schools often leads to several students dropping out of schools. Other reasons given are inadequate available facilities (Paxson and Schady, 2001); inadequate teaching time (Leonard, 2003); academic incompetence (Payne, 2000) and unfavourable school climate (Purkey and Smith, 1983). Home background according Yasuyuki and Lokshin (2001); Yorke (2000) and Vinod, Wang and, Xibo (2001) is another factor that could positively or negatively impacts a pupils decision to continue school attendance.

Methodology

The population of the study that adopted the descriptive survey design comprised all dropouts and repeaters in 1831 schools (1516 primary schools and 315 junior secondary schools) where attendance is true and compulsory. The scope of the study was limited to Edo State, a part of Nigeria for two (2) important reasons. Edo State is so strategically located that it serves as the gate way to the different parts (North, South West and East) of the country, a situation that makes it possible for every ethnic group in the country to be represented in the state as residents. The second reason for the choice of Edo State as a case study is the allegation that it is one of the Nigerian states where basic school- aged children are trafficked abroad (Europe, America and other parts of Africa) for prostitution and child labour.

The collection of data for the study was done with a questionnaire named "School Children Reasons for Constituting Wastage to School Questionnaire (REDROQUE)". The purpose of the questionnaire was to ask pupils that repeated class (es) and those that dropped out of schools to rank their reasons for doing so in order of importance. REDROOUE comprised two sections: A and B. Section A elicited background information (sex, age location and socioeconomic status) on pupils that repeated grade, level and dropped out of schools. The section B contained ten (10) perceived reasons for student wastage Respondents were instructed to rate the reasons for grade repetition and dropout on a 5- point Likert scale. The Pearson Product Moment Correlation statistics was used to obtain the reliability coefficient (r =.80) for REDROQUE that was pilot tested on 50 identified pupils that dropped out and repeated grade level(s) in neighboring Ondo State of Nigeria via the test- retest technique. In addition, the questionnaire was validated by two (2) independent experts in the Nigeria Educational Research and Development Council (NERDC), a research institute empowered by Act of Parliament to conduct and disseminate research findings in education.

The Research Assistants (1831 school Head teachers and 104 trained personnels that administered oral vaccines during the house-to-house immunization exercise that coincided with the study period in Edo State were used as research assistants. For the administration of the research instrument, 1831 Head teachers in the chosen schools were employed as research assistants. The Head teachers were considered appropriate because they were able to identified repeaters in the different grade levels while the trained personnels for immunization vaccine administration traced students that dropped out of schools to their homes. At the end of the administration of the research instruments that lasted for 13 weeks, that is the whole first term of 2005/2006 school year, the responses of 27,054 pupils (i.e. 91.07 percent) out of 29,707 that responded to the questionnaire well and found useful for analysis.

The data collected to answer the only research question for the study were analyzed using weighted mean. To determine the reason(s) that were significant 3.0 which represents the midpoint in a 5-point Likert scale was set as critical value. Finally, the hypotheses raised for the study were tested using the t-test statistics.

Results and Discussion of Findings

Question one

Are the reasons for students' wastage in schools where attendance is free and compulsory significant?

Data collected to answer question 1 were analyzed using weighted mean and standard deviation. The result of analyses is shown in table 1.

Table 1Mean Scores of Perceived Rated Reasons for Wastage in Schools

S.No.	Perceived Reasons for Wastage	N	_	S.D
			x	
1.	Ill health	27054	1.8826	1.3247
2.	Inadequate teachers	27054	3.1022*	1.5818
3.	Inadequate facilities	27054	2.1364	1.3550
4.	Failure in examination	27054	2.6608	1.2910
5.	Parents' wish	27054	3.0082*	1.1838
6.	Teachers poor attitude to work	27054	3.8151*	1.2258
7.	Poor supervision of teaching and	27054	3.1921*	1.4527
	learning			
8.	Unstable school calendar	27054	4.6401*	1.3106
9.	Bullying	27054	3.3665*	1.5176
10	Poverty	27054	3.3154*	1.4120

*significant

As shown in Table 1, seven (7) reasons (inadequate teachers; parents' wish, teachers' poor attitude to work; poor supervision of teaching and learning; unstable school calendar; bullying and; poverty) are significant while only three (3) reasons (ill health; inadequate facilities and; failure in examination) are not significant

Hypothesis One

Reasons for wastage are not rated to be significantly different by male and female pupils

To test hypothesis one, the mean rating for both male and female pupils were computed. Thereafter, the t- test was applied to test the difference between the two means. Result of the analysis is shown in table 2

Table 2Rated Mean Difference of Male and Female Pupil's Reasons for
Wastage

Source of difference	N	x	S ²	<u>Cal- t</u>	<u>Crit-t</u>
Male pupils	8387	29.27	0.8713		
Female pupils	18667	37.11	0.4409	10.32	1.96

P > 0.05; df 27052

Since the computed t (10.32) is greeter than the critical t (1.96) at 0.05 level of significance the null hypothesis which states no significant difference in the rated reasons for pupils' wastage by male and female pupils is rejected It shows, therefore, that male and female pupils significantly differ in the rated reasons for wastage.

Hypothesis Two

Old and young pupils will not significantly differ in rating reasons for wastage.

The mean rating for old and young students' reasons for wastage were computed and t-tested. The result of analysis is shown in Table 3

Table 3 Rated Mean Difference of Old and Young Students Reasons for Wastage

Source of difference	N	Ī	S ²	Cal t.	Crit- t
Old pupils	9022	41.97	0.2601		
Young pupils	18032	37.94	0.2100	8.40	+1.96

P >0.05; df 27052.

Since the calculated t- value (8.40) is greater than the critical t value (1.96) as shown in table 3, the null hypothesis is rejected. This means that old and young pupils significantly differ in rating perceived reasons for wastage. Old and Young students were respectively defined as pupils aged 11⁺ and 11 years below.

Urban and rural pupils will not significantly differ in rating reasons for wastage.

Hypothesis Three

Result of the t-test analysis is shown in table 4.

Table 4

Rated Mean Difference of Urban and Rural Pupils Reasons for Wastage

Source of					
Difference	N	X	S ²	Cal-t.	Crit - t
Urban pupils	15941	38.01	0.1011		
Rural pupils	11113	35.99	0.3628	4.42	+1.96

P> 0.5; df 27052

As shown in Table 4, computed t value (4.42) is greater than the critical t (1.96). The null hypothesis is therefore rejected, meaning that urban and rural pupils significantly differ in the rating of reasons for wastage. The higher mean value of 38.07 indicates that urban pupils rate the reasons for wastage higher than rural pupils. Urban pupils were operationally defined as children that attend schools located within major towns and cities while rural pupils were defined as those that attend schools located outside major town and cities.

Hypothesis Four

Wealthy and poor pupils will not significantly differ in rating reasons for wastage.

Students whose parents' per capita income is N240,000 (two hundred and forty thousand naira) (i.e. \$1678. 32 at N143 to \$1) and above were regarded as wealthy pupils, while those that earn below #240,000 (i.e. \$1678.32) per annum were considered as poor. The result of their responses analyzed with t-test is shown in Table 5.

Table 5Rated Mean Difference of Wealthy and Poor Pupils Reasons for
Wastage.

Source of difference	N	x	S ²	Cal-t	Crit-t
Wealthy pupils	4019	28.42	0.3632		
Poor pupils	23035	31.09	0.3144	4.68	1.96

The data in Table 5 shows that computed t-value (4.68) is greater than the critical t (1.96). Therefore, the hypothesis which states wealthy and poor pupils will not significantly differ in rating reason for wastage is rejected. This means that wealthy and poor pupils differ in rating reasons for wastage. The higher mean (31.09) suggests that poor pupils rate the reasons for wastage higher than wealthy pupils.

Discussion of Results

The study revealed that seven reasons given for wastage (inadequate teachers; parents' wish; teachers poor attitude to work; poor supervision of teaching and learning; unstable school calendar; bullying and poverty were rated to be significant. There is no doubt that the high level of poverty in Nigeria that is rated 13th poorest nation in the world (World Bank Report, 2005) could be responsible for why such reasons are rated to be significant. This, for instance, is likely to explain why many parents wish their children and wards to repeat classes or withdraw from school for inability to finance private cost of schooling. On the part of school administrators, inability to promptly and adequately remunerate teachers may explain teachers' attitude to work and eventual trade disputes that often disrupt academic calendar of schools in Nigeria. The reason of bullying that is corroborated by Bangladesh Bureau of Statistics (1998), Deustsch (1998) and Koutromanes (1996) is also likely to be as a result of poverty, a strategy adopted by stronger students to intimidate the weaker ones, when disposing them of their personal belongings. This is probably why Aluede (2003) and Vinod, Wang and, Xibo (2001) postulated that children from poor homes are more predisposed to violence in schools than their counterparts from wealthy homes.

The other three reasons that are not significant, particularly that of failure in extermination, is not surprising. This is because the law that stipulates repetition for a pupil that fails to achieve a minimum level of academic performance is not enforced in many Nigerian schools. Several school children withdraw from one school to another without approval whenever they fail promotion examination.

It is also the finding of this study that female pupils that repeat class(es) and drop out of schools rate the reasons for wastage higher than male pupils. The wish of parents for female children and wards to withdraw from school (that very often leads to withdrawal) and assist in baby- sitting or go into early marriage for economic reprieve for the family probably provide explaination for this finding supported by Yasuyuki and Lokshin (2001); Ravalion and Wodon (2001) and; Basu (1998). The situation in the recent past has become very worrisome as parents from observation withdraw female children from schools and get them trafficked abroad for prostitution or as baby-sitters.

Old pupils have been found to rate the reasons for students wastage higher than young pupils. This result is not surprising as several primary school leavers in Nigeria stop schooling at this level from observation. It needs not to be over emphasized that a situation were children do not go beyond the level of primary education, especially in a developing country like Nigeria will negatively impact on the formation of human capital, a *sine qua-non* for national development.

The finding that urban school pupils rate the reasons for wastage higher than rural school pupils is to be expected. The distractions and inconveniences (such as child labour; incessant threats to life and property: electricity power outage; endless search for portable water; ethnic/ religious violence etc) that characterize urban areas in Nigeria are the reasons why the finding did not come as a surprise. This view is consistent with that of Bhatty (1998) that the frequent use of children in urban areas for child labour could predispose such children to repeat classes or drop out of school more than other school children in rural areas.

It has also shown that poor students rate the reasons for student wastage is higher than wealthy students. This is expected because the rate of poverty in the recent past in Nigeria seems to be high. An average Nigerian for instance lives on below 2 (i.e. 3286.00 local currency) per day (Institute

of Chartered Accountants of Nigeria Report, 2004). It is difficult in the circumstance to afford even the private cost of school uniform, transport to and fro school; textbooks; stationery and school meals. The finding is therefore consistent with the argument of Igbineweka (2005) Arulampalam et 'al (2003) and Passi (1998) that poverty negatively impacts learning, and could get students frustrated out of schools. Additionally, the reports of higher wastage rates in developing countries by Carron Ta'Ngoc (1996); Brown (1994) and Brimer and Pauli (1971) support this finding.

Conclusion and Recommendations

Based on the findings of this study, it was concluded that majority of the reasons for wastage in schools where attendance is free and compulsory are rated to be significant. Female students rate the reasons for wastage in schools to be significantly higher than male students. It was also concluded that older students that are repeating grade level(s) or dropping out of schools for whatever reasons, significantly rate wastage reasons higher than younger' students. For the variable of location, urban school student's rate wastage reasons significantly higher than children that attend schools located in rural areas. Students from poor homes also rate wastage reasons to be significantly higher than those from wealthy homes.

On the basis of the above findings and conclusion, the following recommendations were made. The reasons that are rated to be significant are the ones that students who repeat and dropout feel very strongly about. Stakeholders, particularly parents and school administrators should therefore ensure that student's needs are meant. The parents should be mandated by school administrators to provide their children/wards with basic needs like uniform, books, stationery and school meals. The way this can be done is o request parents to endorse a declaration that they will adequately and prompty finance all their children private cost as a pre-condition for admission into schools. Similarly, school administrators are to ensure that available facilities and equipment are adequate in quantity and quality. The parents should be allowed to assess the status of adequacy of school resources whenever they wish to do so. Additionally, school administrators are to ensure that the school environment is conducive enough to motivate learning and regular school attendance.

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PROGRAMME OF READING READINESS IN EARLY CHILDHOOD EDUCATION

By

Seema Naheed®

Abstract

Reading readiness is a stage before admitting a child in a formal learning setting. A child should go through a programme of multidimensional activities before he goes to read and write. The age for reading readiness varies from child to child. The nature of activities for this stage enjoins the previous experiences of child in the social, lingual, and environmental settings to the prescribed required experiences. It is necessary to recompile the suggestive concepts and time, donated to each of them in the light of experiences of a child's life. An assessment at the end of each activity shows the success of each effort. A programme of reading readiness was given to a school. Health was independent variable. General knowledge, social and psychological readiness, language, oral Urdu and English were dependent variables of tests that were conducted to assess children at the end of each activity. The assessment data reveals that the test is reliable and F-values of each independent variable are significant (.000) at p> .05 level.

Introduction

Initial Reading Readiness is defined as a phase of preparedness for learning the reading process. This specific term first appeared in 1925. This concept means that there is an educational task to prepare a child prior to his formal school learning programmes. This practice will prevent high attrition rate in the first grade and in the process. The term R R includes developmental aspects, i. e. physical, social and psychological readiness. The term *Reading Readiness* (RR) does not mean to identify and to make correct voices of written symbols i. e. letters. It means to evaluate the total maturation that is necessary for the cognitive task of visualising the symbols and coding their voices. The readiness is that, the pupil should not be forced to learn certain skills until they have attained a certain maturational stage and ready to embark upon that particular skill. The concept of readiness is applied for the teaching of all subjects, for the learners of all age groups in all levels of

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education. The principles of learning help children to learn new things. The sheer maturation is not enough for children to learn. Similarly, potential for reading is not enough for admission in first grade. The readiness is equally important than sheer potential that means fitting, connecting and relating new experiences with past experiences in a meaningful way. The environment and child's development stimulates children and help to speed up reading readiness. Special readiness experiences are necessary for the children of nursery level. For example, May (1986) suggests that familiarity with print, visual discrimination, auditory memory, letter sound association, auditory blending, left to right, right to left orientation, ability to follow oral directions and oral vocabulary are essential parts for kindergarten programme.

Lawton and Peter (1993, p. p. 151, 152) stated that the concept of readiness was described by Jerome Bruner. A youngster is ready to learn when he/she achieves sufficient socio-physiological maturation and experimental background so that he/ she can not only learn but want to learn. For example, it is physiologically impossible for a child of 2 years to learn to read because his neurological and muscular system does not develop sufficiently and, therefore, she/he does not want to read. A young of 12 year is not normally ready to study subjects like calculus, classical poetry, or advance theories of any subjects. He/she has a lack of readiness in terms of suitable experimental background and inadequate development of physiological structures which are absent. Although until a person is fully matured physically, it is usually difficult to say to what extent incomplete development of physical structure is hampering the way. In the case of primary intellectual learning tasks, it is particularly applied.

Much of the research on readiness has pertained to the teaching of reading and Arithmetic. When a youngster is old enough to learn to read or to do division? Although specific figures are frequently given, e.g. a child is often said to be ready to read at the age of 5 to 6 years. This can be highly misleading. There is great individual variation among children. Some are ready to read at the age of 3, while others might wait until they are 8.

Farrell and others (1995, p.p.185-186) commented that the term has been used in connection with child centered education pertaining to the method of teaching. For the child-centered education, teaching should take place when the child is ready for it. It means that the child is being able to carry out a task with some success. In this sense, we talk of readiness to read. This implies that there is a physiological and psychological readiness, which makes learning to read possible and that logical steps have been taken. For example, recognizing alphabets has a relation to make sounds. To be more specific, it means that if the child has the ability to recognize alphabets, she/he will demonstrate his /her ability. It is the second sense that seems to be meant by a child-centered theorist. There is a need that if a child does not 'show an interest in reading, the teacher should encourage him to develop her/his interest in reading. The developmental factors of importance for R R programme are mental age, language, interest, whereas experience involves pre reading skills and home background.

Lawton and Peter (1993) say that since it is important that material presented to the young pupils, is not too difficult for them, a number of educators have attempted to develop measures of readability which indicate the ease with which a passage or even a whole text may be read. It has been found that children can read above their reading age if they find the subject matter sufficiently interesting.

Serious problems may emerge from taking data on readiness, particularly when virtually the whole system of education is formal and compulsory in the most countries. It is a matter of administrative convenience to require all the children to begin school at the same age. If Maryam is ready to read at 3 because of her parents efforts at home and has achieved the proficiency level of grade 4, she will find first grade education boring and frustrating. It is likely that her frustrating attitude will affect the performance of the whole class. Mahmood experiences difficulty to read at 6, whereas in Pakistan six-year old child generally starts reading. Failure at initial stages will dishearten him to learn, and through his life he will face difficulties in reading.

Statement of the Problem

The aim of this study is to develop and launch certain activities and experiences of R R for pre schoolchildren in Model School of Punjab University and to assess children at the end of each experience.

Objectives of Study

The following were the objectives of this study:

- 1. To conduct a programme of R R for pre-school-children at University Model School, Punjab University.
- 2. To construct a test of R.R for pre-school-children at University Model School, Punjab University.
- 3. To assess children at the end of each learning experience.

Design and Variables

An outline of concepts was developed. The required experiences and activities for each concept were designed. The assessment of each experience was conducted. The health of group was found out normal and no abnormality was seen. The health was independent variable. The dependent variables were; Urdu and English languages, General Knowledge, Social, Emotional, and Psychological Readiness. The test was in five point's scales. The value of scales was as follows:

Very poor	1
Poor	2
Average	3
Good	4
Excellent	5

Significance of the Study

The R R is a term widely used in literature of early childhood education. Kindergarten, kachi (in government schools) and nursery are the different stages to prepare children for next stages of learning. Activities of these programmes foster children's capability. As a result, early childhood learning programmes lessen the rate of dropout and inappropriate frustration of children. Evaluation and screening of children at the end of each programme is essential. The children who need more attention, are retained for some period to make up their deficiencies. In many schools of formal education, there is no programme to prepare students for formal phase of learning. Though the students of non-formal schools are not small but the stage R R is essentially as important for them as for small children. There is a need to develop authentic tests to analyse student's capability in R R. The development of reliable instruments to measure R R of nursery children is the main purpose of this study.

Hypothesis

There is a difference in obtained scores for General Knowledge, Drawing, Social, Psychological and Language Readiness.

Assumptions

The following are the assumptions of this study:

- 1. "Reading Readiness" (R R) is equally important for all children of basic education. It is essential and important to launch a programme of R R in formal school setting because in the absence of such programme, possibility of drop out rate, increases.
- 2. The duration of R R programme should be short. Grown up students between ages of 7 to 9 years can concentrate for long period of time than small children of 5 years and less. According to Piaget, this age is the level of pre-operation. The nature of activities should be of a little bit more formal and direct to the purpose.

Limitations

The limitation of this test is that the correlation with an intelligent test was not obtained.

Methodology

Sample

All nursery students at Model School of Punjab University were included in this study.

Type of Data Required

Data in ratio scales was required for this study.

Method of Data Collection

The data was collected with the help of classroom teachers and research assistants.

Tools of Research

The tools of research were tests in eight areas; Health, General knowledge, Drawing, Social Readiness, Psychological Readiness, Language, Oral Urdu and Oral English. (Annexure)

Reliability

Item analysis was made. Unsuitable items were eliminated from the test. Guttman split-half showed .9661 for part one and .9668 for part two. Correlation for part one was .93.58 and for part two was .9668. Alpha for whole test was .9897. So, the test was reliable. The limitation is that the test is administered only for one time.

Data Analysis

Table 1 shows the descriptive statistics of obtained scores of children for Health (mean scores, 11.1429; st. dev. 1.8155), General knowledge (mean scores, 137.8333; st. dev.30.7800), Drawing (mean scores, 24.9048; st. dev. 8.1684), Social Readiness (mean scores, 61.5476; st. dev. 14.9653), Psychological Readiness (mean scores, 24.6667; st. dev. 5.4846), Language (mean scores, 90.0476; st. dev. 16.7942).

u_	Cases	Mean	Std. Deviation
Health	42	11.1429	1.8155
General	42	137.8333	30.7800
knowledge			
Drawing	42	24.9048	8.1684
Social Readiness	42	61.5476	14.9653
Psychological	42	24.6667	5.4846
Readiness			
Language	42	90.0476	16.7942

Table 1

Table 2 shows the *t test* values of five variables. It shows 31.847 tvalues that is significant (.000) at p < .05 level. The t test shows no significant mean difference in obtained scores for general knowledge, drawing, social, psychological and language readiness. The hypothesis is rejected that these is mean difference in score for General Knowledge, Drawing, Social, Psychological and Language Readiness.

Table 2

One sample *t-test* showing the significance of obtained scores for General Knowledge, Drawing, Social, Psychological and Language Readiness

Т	Sig. (2-tailed)
31.847	.000

Table 3 shows students performance in general knowledge, drawing, social psychological and language readiness. In fact, the performance is significant. The t value is 29.031 for general knowledge, 19.759 for drawing, 26.653 for social readiness, 29.147 for psychological readiness and 34.749 for language readiness. The significance of t-values in all five factors is .000 p < .05 level. So, it is interpreted that the performance in test is considerable.

Table 3One sample t-test for General Knowledge, Drawing, Social,
Psychological and Language Readiness

T	Sig	
29.021	.000	
19.759	.000	
26.653	.000	
29.147	.000	1.
34.747	.000	

Summary

The mean values of obtained scores for each item are given in annexure. No item shows excellent (5) score. Mean score 4.000 (good) is for these items; good-bye, hand and eye coordination, participation in conversation and what is your name.

Mean score 3.00 to 3.99 shows an average position. Similarly mean scores below than 3.00 indicate below average performance. These items stand for below average score. Integration; 2.52 (To make things with blocks), Nature, 2.66 (Talk about nature in three lines); Name 12 months of the year, 2.81; What is the function of electricity, 2.92; drawing of tree and flower, 2.43

and 2.43 respectively, Talk without interrupting others, 2.92; Knows about his/her relations and can talk about in three lines, 2.93.

Discussion

The items that carry below average scores need more allocated time for better classroom preparation with the help of teaching learning material. This programme of reading readiness may be launched in any nursery. It can be utilized for teacher training purpose at nursery level. The parents also can utilize this programme and test at home to foster the learning process of their children.

ANNEXURE

PROGRAMME AND TESTS OF READING READINESS THROUGH CHECKLISTS FOR NURSERY STUDENTS AND OBTAINED MEAN SCORES

Name of the Student	_ Age: Years:	Months
School	Ŭ	

Testing the vision

Check near vision from 10 to 14 inches and distance vision from 20 feet. It is, up to the teacher to adopt a proper method to check the sight of students.

Testing the hearing

Aloud ticking watch will serve the purpose. The normal child will hear the tick at about 48 inches. If the tick sound can not be heard at a distance of more than 16 inches the child must be sent to a specialist for examination. The whisper test is another technique to check the hearing of small children. It will be given 15 inches away from the child. One ear should be tested at a time.

Testing the speech

To guide the children about various types of speech and the possible causes of a certain kind of speech, a chart is given. Before analysing the speech of students please read the following chart.

S.No.	Observable speech disorder	Possible causes
1.	Baby talk	Immaturity, home example, low mentality, defective hearing, inability to discriminate sounds accurately.
2.	Lisping	Mal formation of teeth or jaws, loss of front teeth, hearing deficiency, immaturity.
3.	Poor articulation	Carelessness, home background,

Diagnostic speech chart

		defective hearing, inadequate knowledge	
		of sounds.	
4.	Excess nasality	Poor hearing habits, physical defects,	
		home example.	
5.	Breathiness	Emotional tension, improper breathing.	
6.	Stuttering	Physical defects, emotional problem.	
7.	Stammering	Feelings of inferiority, physical defects.	
8.	High pitch	Self-consciousness, insecurity, fatigue,	
		faulty hearing and sound discrimination.	
9.	Stridency	Poor social adjustment, home	
		conditions, hearing defect, emotional	
		problems.	
10.	Low pitch	Physical defects, fatigue, emotional	
		problems.	

Test No. 2 General knowledge

.No.	Contents	Very	Poor	Average	Good	Excellent	Obtained
		poor		_			Mean
		[Score
1.	Size: Thin						3.50
2.	Thick						3.38
3.	Tall						3.40
4.	Small						3.64
5.	Big						3.64
6.	Direction: Up						3.26
7.	Down						3.14
8.	Forward						3.11
9.	Backward						3.52
10.	Curve						3.40
11.	Straight						3.11
12.	Classification/						3.35
	Categorisation:			-			
	sorting similar						
	things i. c.						
	vegetables,						

の言語を見たいである。

[flowers, fruits.	 r				
13.	Difference:	 		- n		3.14
	hot, cold,					
	sour, sweet					
	and salt with		<u></u> .			
	one example					
	for each.	}]			}
14.	Names of five	 				3.61
	utensils and					
	their use.					
15.	The procedure	 				3.β8
	of taking bath					
	in 5 lines.					
16.	Identification:					3.52
	Can identify at	1				
	least five	l				
	colours.					
17.	Identification					3.61
}	of drawings of	}	ł		ļ	
	certain things					
	i. e. parts of					
]	body and the					
	real things.	 ļ				
18.	Completion of					3.50
	a picture with		}			
L	cards.	 				
19.	Arrangement					3.02
	of a picture in					
	blocks.	 	<u> </u>			
20.	Integration: to					2.52
}	make things	!				
	with blocks.	 				
21.	Assimilation:					3.14
	complete a	1				
	story;					
	assimilate					
Ì	sentences to	1]		ļ	
1	complete a					
	story or a		<u> </u>			

	paragraph.					
22.	Relatives,		 1			3.12
	uncle aunt,					
	cousins.		i			
23.	Neighbors in		 <u> </u>		· /	3.110
	right and left					
	hand.					
24.	Pets at home	<u> </u>	 			3.50
	or					0.00
	surrounding.					
25.	Nature: Talk				······································	2.66
	about nature					
	in three lines.					
26.	Surroundings:					3.14
	Talk about					
	your present		1			
	surroundings					
	in three lines.					
27.	Eye		 1	** <u> </u>	<u></u>	3.38
ļ	movement			i i		
	according to		ļ			
	the typed					
	words.					
28.	Experiences:					3.62
	Talk about					
	day-to-day					
	experiences.		 			
29.	Travel: Tell					3.4()
	about any of					
	your out of					
	city travel,					
	outing, and					
	recreational					
	activities.		 			
30.	Trip/tour: Tell					3.52
	in three lines					
	about any					
	pleasure trip					
	with your					

	family or	· · · · · · · · · · · · · · · · · · ·	 				
	friends.		 				
31.	Play/game:					3	.76
	What is your						
	favourite play		-				
	or game? Tell						
2.0	in three lines.		 				· · ·
32.	Special					3	.64
	interest/						,
	hobby: Tell in three lines						
	about		_				
	3.88your		-				
	hobby or						
	interest.						
33.	Recognize at		 			3	88
	least five pet						
	animals.						
34.	Recognize					3	38
	three flowers.		 ···				
35.	Name 7 days					3	64
	of a week.						
36.	Name 12					2	81
	months of the						
	year.		 				
37.	Name five of					3	52
	your favourite dishes.						
38.	Name three of		 ·				26
	your disliked					2	ΖŅ
	dishes.						
39.	What is the		•		-		92
571	function of						74
	electricity?						
40.	Tell about			-		3	64
	your favourite						
	toys. (3 lines)						
41.	Tell about		 			3	40

_				
ſ	your favourite			
	dresses in 3			
	lines.			

Test No. 3 Drawing

S.No.	Contents: Draw following	Very poor	Poor	Average	Good	Excellent	Mean Score
	things	poor					
1.	Circle						3.26
2.	Tree						2.79
3.	Flower						2.43
4.	Vegetable						3.29
5.	Fruit						3.17
6.	Straight line						3.88
7.	An animal						2.81
8.	Draw						3.29
	something of						
	your own						
	choice.						

Test No. 4 Social readiness

S.No.	Content	Very	Poor	Average	Good	Excellent	Mean
		poor					Score
1.	Knows about						3.76
	his/her turn.						
2.	Where						3.64
	necessary	•					
	shares with						
	others.						
3.	Talks without						2.92
	interrupting						
	others.						
4.	Takes share			·			3.17

	without				Ţ			
	monopoly.							
5.	Co-operates				1	-	3.2	9
	during group							
	activities.							
6.	Concentrates		[†	{	3.1	7
1	upon specific							
	educational]					
	opportunities.							: -
7.	Takes cares		T I				3.0	5
	of books and							
	clothes.	·						
8.	Takes	_	ļ	Ţ		Ţ	3.8	6
	permission to							
	come in the							
	classroom							
	and going							
<u></u>	out.				<u> </u>			
9.	Says S <i>alam</i> .				<u> </u>	[3.7	
10.	Shakes hand						3.7	-
11.	Says goodbye						4.0	
12.	Says Bismillah						3.6	
13.	Says, thank	_					3.70	\$
	you.		<u> </u>	l				
14.	Performs	_		_			3.1	4
	praying		[ļ				l
 	sentences.	<u> </u>	 	· ·				
15.	Knows the					Ī	3.3	B
ļ	respect of		[ļ				
	Azan.					<u>_</u>	<u> </u>	
16.	Knows to				1		3.1	9
	love the							
	country.							
17.	Knows about		1				2.9	3
	his/her							
İ	religion and						ļ	
]	can tell about							
l	it in 3 lines.			•	<u> </u>		<u> </u>	

. .

Can tell		3.17
about his/		
her country		
in 5 lines.		

Test No. 5 Psychological Behaviour

S.No.	Content	Very	Poor	Average	Good	Excellent	Obtained
3.1NU.	Content	poor	LOOI	iverage		12ACCHCIII	Mean
		-					Score
1.	Acts upon						3.52
	according to	.		:]		
	the						
	directions.						
2.	Tells the						3.28
	reasons of			1			
1	his opinion.						
3.	Recognizes					[3.29
	letters and						
	words and						
	can tell the						
	difference.						
4.	Listens						3.76
	calmly until]]	ļ	
	5 to 10						Ē
	minutes.						
5.	Narrates						3.52
	incidents						
	orderly.					<u> </u>	
6.	Takes						3.29
	interest in						(
	books and						
	studies.						
7.	Hands and						4.000
	eyes are						
	coordinated.					l	

Test No. 6 Language

.

S.No.	Content	Very	Poor	Average	Good	Excellent	Obtained
		poor		_			Mean
							Score
1.	Name these	·					3.62
	concepts with						
	one example						
	for each:						
	Things,						
	movements						
	and places.						
2.	Can explain						3.62
	an						
	experiment.		_				
3.	Clear						3.38
	articulation.						
4.	Recognizes/		l				3.40
	understands						
ĺ	different						
	meanings of						
	one word.						
	(The	l i					
	explanation						
	will be						
	provided.)						
5.	Can						4.000
	participate in						
L	conversation.						
6.	May explain						3.76
	about one s'						
l	needs and	ļ					
ļ	4requirements		L				
7.	Can use the		!				3.74
	words of ,	Ì	1				
	initial lessons	ļ					
L	in daily						

		_					
	conversation.						
8.	ls habitual to						3.14
	hear the						
	words of						
	initial lessons						
	of textbook.					·	
9.	Has wished to						3.64
	open and see						
	the book.						
10.	Familiar with						3.76
	letter signs						
	and						
1	pronunciation				1	1	
	of language.						
11.	Recognizes						3.29
1	the direction						
	of words.	_					
12.	Feels pleasure						3.52
	with aloud		l	1			
	reading of						
	book.						

Test No. 7 Oral Urdu

S.N	Content	Ver	Ро	Averag	Goo	Excelle	Mea
о.		У	or	е	d	nt	n
		poo					Scor
1		r				·	e
1.	Introduce yourself in five lines; full name father s' name, etc.						3.74
2.	Sing a poem.						3.64
3.	Tell a story.						3.14
4.	How is the weather?						3.76
5.	Alphabets: What is						3.38

医副子前外的 有效 有限的 化化合物 化合物 化化合物 化合物 化合物 化合物 化合物

	next to_, to_, to_, to_, and to	
6.	Tell about yourbooks, class teacherand school. (fiveline sare sufficient)	3.76

Test No. 8 Oral English

S.No.	Content	Very	Poor	Average	Good	Excellent	Mean
		poor		8			Score
1.	What is						4.000
	your name?						
2.	What is						3.88
	your father's						
	name?						45.5
3.	Your's						3.64
	mother						
	name?						
4.	The name						3.52
	of your						
	school.						
5.	Sing a						3.52
	poem.						
6.	Say all						3.64
	alphabets.						
7.	Alphabets:						3.52
	What is next						
	to F_, to						
	M_, to B_,		l	ļ			
	to K_, and						
	to V		<u> </u>			L	l

Test No. 9 Urdu Oral See the written alphabets and pronounce loudly. Obtained Mean score: 3.64

25

Test No. 10. Oral English

Obtained Mean score: 3.52

Q. No. 1- Loudly pronounce the following capital and small letters of alphabets.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k l m n o p q r s t u v w x y z

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IMPROVING STUDENTS' LEARNING IN THE PHYSICAL SCIENCE LABORATORIES

By

Muhammad Safdar

Abstract

The work being presented here is an investigation about the effectiveness of the pre-lab to improve the students' learning in the physics laboratories and to develop the students' habit of preparation before coming into the lab. The main objective of this study was to improve the students' understanding about the experimental work and to see whether the experience of pre-lab (preparation before entering into the lab) could be more rewarding. There was a good sign of improvement in the learning (performance) of the students' in the physics practical work in favour of pre-lab. By the use of pre-lab, there was also reduction in time for completion of lab work, compared with the time taken by a control group without pre-lab. In almost all the 15 experiments, the time reduction was 10 - 30 minutes.

The paper emphasizes that pre-lab and post-lab activities should be introduced at the school / college level in the future for the improvement of students' learning in the physical science laboratories.

Introduction

Theory and practice are interrelated. Better understanding about practical work in the laboratory requires strong theoretical background along with experimental skills. Keeping in view this concept, the pre-labs were prepared in such a way that it may provide an opportunity to the students to enrich their practical knowledge and better understanding about the concepts involved.

Laboratory is a spacious place where the students carry out their experimental work. It provides many opportunities for students to talk and write about science. With a little thought and planning on the part of the

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students, its activities can be the basis for building communication and problem solving skills.

At the school stage, practical work is more important because of the fact that we *learn by doing* scientific principles and applications are thus rendered more meaningful. It is well-known fact that an object handled impresses itself more firmly on the mind than an object merely seen from a distance. Johnson (1989) quotes a Chinese proverb;

I hear and I forget. I see and I remember. I do and I understand.

For every effective and efficient working aims and objective should be well defined. Johnstone, (1996) formulated some possible aims for laboratory work:

- 1. Manipulative skills
- 2. Observational skills
- 3. Ability to plan experiment.

Kirschiner and Meester, (1988) suggested student centered objective for practical work; to formulate hypotheses, to solve problems, to design simple experiments, to test hypotheses, to use lab skills, to interpret experimental data, to describe clearly the experiment.

The lab objectives set for this study were:

- 1. To use the measuring instrument (e.g. vernier calipers, screw gauge, measuring cylinder, volt meter, ampere meter, stop watch etc.) effectively and efficiently
- 2. To find the relationship between the independent and dependent variables (i.e. cause and effect relationship)
- 3. To enhance the calculation skills
- 4. To interpret the experimental data
- 5. To verify laws, principles (e.g. laws of reflection, refraction, Archimedes principle, etc.)
- 6. To describe the experiment clearly.

This study was carried out for a period of one year in two Physics Laboratories (one Urban and One Rural) of Jhelum District. The sample of one hundred and fourteen (114) secondary school science students was randomly selected from Govt. Comprehensive High School Jhelum (Urban) and Govt. Higher Secondary School Domeli (Rural). The sample was then divided into two equal groups, that is, fifty-seven students with pre-labs and fifty-seven students without pre-lab. Pre-labs were used and followed by the post-labs to know the effects of pre-labs on the learning of the students. This was further checked and verified by the Secondary School Certificate Examination 2001 conducted by the Educational Board in the subject of Physics (Practical and Theory) to see if the pre-labs played any part.

Methodology

The total sample was consisted of one hundred and fourteen (114) Secondary School Science Students (i.e. fifty seven students with pre-lab and fifty seven without pre-lab). The sample was then further divided into two groups that is rural and urban. Fifteen experiments of physics were selected for the present study from the secondary schools syllabus of the Board of Intermediate and Secondary Education. The timetable was prepared and adjusted with the regular timetable of the schools. The pre-labs and post-labs were used as tools for this study. The construction and validation was made after passing through the four phases i.e. (1) planning phase; (2) preparation phase; (3) try out phase; (4) administration / evaluation phase.

The t-test for independent samples is used to find out the effects of pre lab on the learning of the students in the physics laboratory. With the help of the tools, the data was collected, analyzed, classified, tabulated, and presented in form of mean score.

Pre-Laboratory Activities

Expecting students to engage in laboratory activities without some form of prior consideration, may leave them feeling insecure, and result in a rather poor understanding of what is happening. It is, therefore, useful to engage them in some form of pre-lab activities highlighting the essential ideas of the work. Bond, David Jeffery, et. al., (1986) describe that pre-lab activities may be conducted in the first portion of the laboratory time, or carried out prior to the scheduled laboratory period.

The pre-lab sheets were provided to the students in the form of written

material under the headings: What should I know before I begin? What will I measure? How does it work? How can I verify?): along with some questions / activities to be done before entering into the lab. The purpose of these questions / activities was:

- (i) To ensure that the students know, in general terms, what will happen in the next laboratory session?
- (ii) To assist students to understand the steps involved in the analytical procedure by focusing attention on the physical processes involved.
- (iii) To direct students' attention to key aspects of the procedure.

The pre-lab encourages students to think as scientists before they enter the laboratory rather than behave as recipe followers. Pre-labs were provided to the students at least one week before the start of each experiment. On the top of each pre-lab sheet, it was mentioned that preparatory work should be done for this experiment before you come to the lab, otherwise you will not be allowed to enter into the lab.

The pre-lab developed for 'the simple pendulum' is shown below as a specimen:

The Simple Pendulum

The following preparatory work for this experiment should be learnt/ done before you come to the lab. The researcher/ demonstrator will check that this has been done.

Theory:

It consists of the following headings:

What is a simple pendulum, amplitude, time period, total length of the pendulum?

What will I measure?

You will measure:

- 1. The diameter of the bob with the help of vernier calipers.
- 2. The total length of the simple pendulum.
- 3. The total time for thirty vibrations.
- 4. The time period of the simple pendulum.
- 5. Average length of the pendulum.
- 6. Average time period of the pendulum.

What should I know before I begin?

- 1. How to measure the diameter of the bob? (See the enclosed page)
- 2. How to calculate the total length of simple pendulum?
- 3. How to find the total time for thirty vibrations?
- 4. How to calculate time period?
- 5. The relationship between length (1) and time period (T).

(See the enclosed page and also consult your practical notebook.)

Find the zero error in this figure?



What is the reading in this figure?



Procedure:

Take a fine thread about 100 to 150 cm long and rub it with cobbler's wax to avoid rotatory motion of the bob due to the twists of the thread. Tie one end of the thread to the hook of the bob and other end between the spaces of the spilt cork and tie it firmly to an iron stand. Place the iron stand on the table in such a way that the bob is just a few centimeters (2 - 4) above the floor. Mark two points A and B at a distance of nearly 5cm as shown in the figure presented below. Take the bob to one of the points A or B and release it very gently. It will start vibrating.



Take a Stop Watch. Study its scales. Hold it in your hand.

How to count vibrations?

Watch the motion of the bob. When it just passes from the mark O, start the Stop Watch. When the bob crosses point O again in the same direction, one vibration has been completed. In the same manner count 30 vibrations. Stop the watch just when the 30^{th} vibration has been completed. Note the time taken by the bob to complete 30 vibrations. Repeat it again without changing its length. Find the mean time for 30 vibrations. Calculate time period T that is the time for one vibration. Measure the length of the pendulum $(l = l_l + r)$. After noting T and l in the table, study the relation between them. Repeat experiment with different length and find l/T^2 in each case.

Check that $|\alpha|T^2$ or $||/|T|^2 = Constant$.

Post Laboratory Activities

The post-labs were introduced to the students (whole sample) just after the completion of practical work in the physics lab to provide the students an opportunity to demonstrate various skills of calculation, communication, and application, and to re-explore what they had learned in the laboratory. Postlabs were prepared by keeping in view the Blooms Taxonomy of Educational Objectives. Each post-lab consists of 5-7 test items associated with the experiment. The post-lab problems were chosen from the Physics Text Book for secondary classes and from every day life to develop the student interest in physics and to develop better understanding about the experiments.

		Marks Obtained:	
Max. Marks	: 10. Tim	ie: 30 Mi	nutes.
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	following questions will help you t		•
	nd help us to improve the teaching , (-1)		ig in the lab.
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۷.	water and have a hole in it. Du		
	flow of water, its mass decreases	~	
	time period of the pendulun		
	pendulum)		v or mass or simp
	1 ,	ക	It will decrease
	(c) It will remain same	(d)	none of the a. b. c.
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(Part B)

$$(2x1 = 2)$$

Write the short answers (on the space given below) of the following questions.

1. Will a pendulum of a clock that keeps correct time at Karachi, be accurate at the mountain K2.

2. Give two examples of motion's that are simple harmonic.

(Part C) (2) By using formula $T = 2\pi / l/g$. Find the value of g by taking the mean length (l) and the time period (T) from your experiment you have just done. Is it 9.8 m/s² (approximately)?

Results and Discussions

The students' understanding about the practical work was analyzed on the bases of (i) Post-lab results, (ii) the marks achieved by the sample in the Secondary School Certificate Examination (Physics Practical) conducted by Board of Intermediate and Secondary Education (BISE), Rawalpindi.

To find the difference between the two mean scores (with pre-lab and without pre-lab) t-test was used. A significant difference was found in favour of students with pre lab in both the cases (i.e. The Post- lab results and BISE results).

	Mean Scores with pre-lab X ₁	Mean Scores with out pre-lab X ₂	t-Test at 5% level of significance
Marks achieved in Post Labs	6.00	4.75	$t_{cal} = 9.173$ $t_{rab} = 1.98$ df = 112
Marks achieved in the SSC Examination 2001 Physics Practical (X _p)	16.44	14.56	$\begin{array}{c} t_{cal} = 3.31 \\ t_{rab} = 1.98 \\ df = 112 \end{array}$
Marks achieved in the SSC Examination 2001 Physics Theory (X _T)	35.11	32.60	$\begin{array}{c} t_{cal} = 1.19 \\ t_{rab} = 1.98 \\ df = 112 \end{array}$

Table 1"Mean Scores" (whole sample) overall picture

The Table 1 shows the performance of the students with pre-lab and students without pre-lab in the three categories i.e. post-lab results. Marks achieved in physics practical and physics theory in the SSC examination 2001.

The II and III column of the Table1 shows that the mean scores of the students with pre-lab is greater than the mean scores of the students without pre-lab in all the three categories. Hence it is confirmed that the pre-lab help the students to improve their practical work. In each pre-lab the theory behind the experiment was provided to the students for better understanding about the practical work in the laboratory. Due to this input, the students' theoretical knowledge was also improved by the use of pre-lab. Although there was no significant difference, but it was. The gain can also be seen from the histogram shown below.



Urban Sample

There were one hundred and thirty three science students in Govt. Comprehensive High School Jhelum (Urban) during the session 2000-2001. Two groups of thirty students each (i.e. thirty students with pre-lab and thirty students without pre-lab) were randomly selected as an urban sample for this study.

Table 2Urban Students' Overall PictureMean Scores (with and without pre-lab groups)

	Mean scores with pre-lab X ₁	Mean scores without pre-lab X ₂	t-Test at 5% level of significance
Marks achieved in Post Labs	6.2	5.13	$t_{cal} = 5.49$ $t_{tab} = 2.00$ df = 58
Marks achieved in the SSC Examination 2001 Physics Practical (Xp)	17.63	15.53	$t_{cal} = 3.15$ $t_{tab} = 2.00$ df = 58
Marks achieved in the SSC Examination 2001 Physics Theory (X _T)	32.70	31.40	$t_{cal} < t_{tab}$

The Table 2 shows that the learning is improved in favour of pre-lab. A clearer picture that has emerged from the Table 2 is shown below in the form of histogram.



Rural Sample

There were fifty-five science students in Government Higher Secondary School, Domeli, during the session 2000-2001. Fifty four students were included in the sample because one student could not complete the procedure for the present study. From the above-cited sample, the students were divided into two equal matched groups (i.e. twenty seven with pre-lab and twenty seven without pre-lab).

Table 3

Rural Students' Overall Picture Mean Scores (with and without pre-lab groups)				
	Mean Scores with pre-lab X ₁	Mean Scores without pre-lab X ₂	t-Test at 5% level of significance	
Marks achieved in Post Labs	5.80	4.34	$\begin{array}{r} t_{cal} = 10.10 \\ t_{tab} = 2.00 \\ df = 52 \end{array}$	
Marks achieved in the SSC Examination 2001 Physics Practical (XP)	15.07	13.48	$t_{cal} = 1.937$ $t_{tab} = 2.00$ df = 52	
Marks achieved in the SSC Examination 2001 Physics Theory (XT)	37.78	33.93	$t_{cal} = 1.20$ $t_{tab} = 2.00$ df = 52	

It is concluded that the pre-lab has helped the students to improve their understanding about practical work.



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The histogram prepared from the Table 3, clearly indicates that the students' performance in the physics practical work with pre-lab was better than without pre-lab. Again it is conformed that the pre-lab helped the students to improve their understanding about physics practical work.

Conclusion

1977年197日,1979年197日,1979年197日,1979年197日,1979年197日,1979年197日,1979年197日,1979年197日,1979年197日,1979年197日,1979年197日,19

The results that emerged from the use of pre-lab and post-lab activities tend to confirm that there was significant improvement in the achievement level of the students in the secondary school physics laboratories. Hence we can say that the students, understanding about physics practical work was improved in favour of pre-lab.

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CONCEPTS OF SUPERVISION AND SUPERVISORY PRACTICES IN OUR SCHOOLS

By

Ghulam Behloi

Abstract

This study deals with the nature and status of supervision, supervisory practices of Headmasters, Principals and District Administrators at secondary level and analysis of the models of supervision. For this purpose, the questionnaire was developed to collect the data from both male and female teachers of the secondary schools of Tehsil Rawalpindi. The items of the instruments focused on the attitude of supervisor, planning of supervision, understanding the concept of supervision, lesson observation, and interpersonal skills and over all atmosphere of school. The data was analyzed on applying simple percentage formula and the recommendations were made from the findings of the study. The study shows that Supervision is taken for a threat and challenge by the teachers. They believe that supervisor's only duty is to find faults with teachers; and is authorized to take action against them. Therefore, the efforts of the supervisors are rarely appreciated by the teachers. The traditional supervisor-supervisee relationship is based on inspectional model of supervision that is followed in our schools. The supervisors are not open to alternative/innovative solutions; and they do not consider the alternatives offered by the creative teachers. The supervisors do not observe the classroom teaching and neither follow a systematic plan for lecture observation, and the majority of beginning teachers do not gain any type of supervisory support from their senior partners and, thus, face problems in the performance of their duties at the start of their career.

Introduction

The dictionary of education defines supervision as all efforts of designated school officials towards providing leadership to the teachers and other workers in the improvement of instruction. It also involves the stimulation and professional growth and development of the teachers. It is the

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process of counseling, sharing and supporting teachers to improve their performance in the classroom. It is also viewed as a process that is confidential, (except in defined circumstances) positive, forward looking, primarily educational and developmental, and designed to help the individual to progress. It is different from evaluation which is both formative and summative, whereas it is a continuous process of formative nature. In assessment the trainee tries to hide what looks bad. In educational supervision they should be comfortable about displaying it. For this purpose, he does not follow directing, telling and fault-finding approach, but participatory and mutual sharing technique. (Wile, 1995)

Supervision is a developmental process of cooperative efforts towards diagnosing and solving substantive problems in the classroom and school. The supervisor is a leader charged with the responsibility of organizing a teaching force for the study of its professional problems. He does not adopt an authoritative role in studying problems to bully or threaten teachers, but work with them collaboratively like a trusted fellow to improve the performance of the teacher in the classroom .He is not always correct and free from mistakes like an angel who only issues commands for implementation: rather plays a role of facilitator, helper and motivator for the solution of the problems. He has to play a role of interactive than directive, more democrative than authoritative, more teacher centered than supervisor centered, more concrete than vague, more objective than subjective and more focused than unsystematic. (Tanner, 1987)

Concept of Supervision in the light of previous Researches

Supervision is conceived as a *controlling of standard* it means the supervisor visits school and checks that whether the activities are performed up to the standard and in line with the directives. (Burham, 1976) It is also viewed as encouraging teachers in team work for improving the process of teaching, providing assistance to marginal teachers, systematizing the decision about dismissal, retention and promotion of the teachers. (Blair, 1991) According to Wile (1995), "supervision is a relationship among human beings to perform the task efficiently and effectively." It is also viewed as improvement of human resource by following the concept of identity, commitment and motivation. (Sergivenni and starratte, 1971) It is also viewed as all activities whose purpose is to provide pupil with an efficient programme of learning. (Washington 1932)

From the above discussion, we can conclude the following characteristics of an ideal supervisor in relation to supervisory practices:

- The main focus of supervision is to improve instruction and cover the activities and actions performed by the teacher in the classroom, and teaching is the outcome of the total experiences of the teacher. Therefore, the supervisor has to keep in mind the whole personality of the teacher that generates actions in the classroom.
- Supervision is not a haphazard but a systematic and planned effort on the part of supervisor and supervisee to improve the learning process in an institution.
- The modern role of a supervisor is just like of helper, guide, leader, motivator and facilitator in improving instruction. He doesn't view the faults of the teachers as their's, but his own and try to solve them collaboratively.
- In effective supervision, they both win the trust of each other to maintain a good relationship and create a climate in which both of them express themselves freely and share each other's opinions.
- In efficient supervision, the supervisor does not impose his decision, but rather convince his supervisee democratically. He respects the selfrespect of supervisee and gives full weitage to his ideas. They critically evaluate the truthfulness of the opinions and ideas for reaching at the conclusion.
- An effective supervision is participatory in nature, and supervisor provides leadership for any problem solving. It gives vision and innovative practices for solving emergent problems. It views education not static but an evolving process that is continuously changing.
- Supervision should be comprehensive in its scope. It should cover all factors of education that influence education.

Models of supervision

There are different models of supervision which are analyzed as under:

a) Clinical Supervision

The term is taken from medical science that focuses on actual treatment of patient and observation instead of experiments and laboratory

study. The entire process is conducted in controlled environment. Tanner and Tanner (1987) say that clinical supervision is conducted in normal setting of classroom and involves the gathering of data from direct teaching of actual teaching - learning events and condition with the goal of improving instructions. Sergivinni and starratte (1983) define the clinical supervision as: In class support system designed to deliver assistance directly to teachers to bring about changes in classroom operation and teacher's behavior." According to Mosher and Purple, (1972), "Clinical supervision demands utmost planning on the part of supervisor. It needs the knowledge about the task that is going to be performed in the classroom along with background knowledge in which that activity is going to take place."

Tanner has identified the following stages of clinical supervision:

- Establish teacher-- supervisor relationship.
- > Planning with the teacher.
- > Planning the strategy for observation.
- ➢ Observing instruction.
- > Analyzing the teaching learning process.
- > Planning the strategy of supervisor-teacher conference.
- ▶ Renewed planning.

Advantages of Clinical Model

Following are the advantages of the clinical supervision:

- o Provides objective feedback on instruction.
- o Diagnoses and solves instructional problems.
- Assists teacher in developing strategy to promote learning, motivates the students and manages the classroom.
- Helps teachers to develop positive attitude towards continuous professional development.
- o Developmental in nature.
- Helps teachers to develop positive attitude towards continuous professional development.

b) Developmental Supervision

The progress of nation depends on self-renewal of problems and to apply critical thinking on the solution of the problems. According to Dewey" Education is the process of continual organization, reconstruction and transformation of experience that adds to the meaning of experience as to the ability to direct the course of subsequent experience."

Glikman (1981) says: "Developmental supervision denotes different styles of supervisory leadership for the improvement of instruction". "He further explains that the leadership styles are employed in line with the knowledge of the ground realities. From ground realities he means the local environment and the facilities available in school that vary from school to school. He has pointed out directive, non-directive and collaborative styles in solving the instructional problems in working with different teachers. Directive style is appropriate for the teacher who has got low commitment and low abstract ability. Non-directive style is adopted when the teacher has got high commitment and higher abstract ability. The collaborative style is more useful with the mixed ability group teachers.

In this model, the supervisor creates an environment in which the teachers develop their independent thinking ability. They develop their own approaches and methods to solve the problems which they face in the classroom. In this way the wheel of progress moves forward to improve the performance of teachers in the classroom. This model doesn't view educational activity as a static thing but considers that everything is passing from evolutionary process. It focuses on participatory approaches to solve the problems. It does not view teacher as a technician who plays his role like a machine for obtaining the results. It keeps an eye on the whole personality of a teacher because the actions are the outcome of his entire being. It follows scientific approach that systematically solves the significant problems. Focusing on different angles for analysis the tests and the hypothesis. The supervisor does not only believe in empirical evidence which he definitely support to conduct the experiment .The point is that statistical data is not everything for the solution of problems. He also exposes the valuation underlying research. The findings are assessed in relation to the existing body of knowledge and practices in the field (Tanner and Tanner, 1987).

c) Inspectional Model of Supervision

This model believes in the authority of the supervisor who visits schools to investigate that whether the work is done according to the set rules or not. He does not provide opportunity to give their opinions, but straight away delineates the policy and demands its implementation. The teachers have to follow him without questioning. The knowledge is viewed as a static entity, not a changing reality. Rules are permanent and the educational standard can be improved by following the rules. *leiter et all* (1978) say that this model of supervision continues to follow highly mechanical and structured Role-model as received doctrine. It is lagging far behind the best theory, which conceives of teachers as a professional and supervisor, as a real leader who helps teachers to face their professional problems and continually grow in the ability to relate theory to practice.

d) Production of the Model of Supervision

This model of supervision focuses on productivity of system. The outcome of the student is considered only the sole criteria of success. School is considered industry in which the students' outcome is assessed. The method of industry, business and military is applied on education that produces zeroreject system. The supervisory model is based on the behaviorist psychology that believes that teaching- learning process is mechanical. The primary responsibility of the teacher is to create an environment which provides stimulus to learner. According to skinner, "teaching is merely a matter of administering the condition for the reinforcement of behavior. Once we have arranged the particular type of consequences called reinforcement, our techniques permit us to shape the behavior of organization at will."

The Study

The study was conducted to explain the nature and status of supervision, to find out the supervisory practices at lower secondary level and to give recommendation for improving the supervisory role of the Principals, Headmasters and district level administration. The survey method was used to collect the data of the study with the help of questionnaire. The items of the questionnaire were constructed relating to the objectives of the study.

The objectives of the study were as under:

- 1. To explain the nature and status of supervision.
- 2. To find out the supervisory practices of supervisors working at lower secondary level.
- 3. To analyze the model of supervision.

4. To give recommendation for improving supervisory practices in our schools.

Procedure of the study

(a) Population of the Study

The teachers working in the secondary schools, students studying at secondary level, Principals, Headmasters, District Education Officers, Deputy District Education Officers, Assistant Education Officers and Executive District Officers were the population of the study.

(b) Sample

Stratified random sampling was used to collect the data of the study. 40 male and 40 female secondary school teachers were randomly selected from the Tehsil Rawalpindi for the study. In this respect, equal weightage was given to male and female teachers working in urban and rural areas. To make the sample really representative of the population, not more than two teachers were taken from the same school. The graphical presentation of the sample is as under:

Gender		Strata/Rural Tot		
	Strata/Urban			
Male	20	20	40	
Female	20	20	40	
Total	40	40	80	

(a) Instrument of the Study

The questionnaire, consisted of 19 items, was developed and it was validated by the experts. It was pilot tested and some of the items were modified to bring clarity. The items of the questionnaire were comprised on planning of supervision, understanding the concept of supervision, lesson observation, over all atmosphere of school, attitude of supervisors, the role of senior teachers in supervising the newcomers, their interpersonal skills, mechanism of their work, the way they utilize the equipments of school, the approach of district administration for solving the problems of the teachers, the schedule of their visits and its impact on the performance of the teachers. The items were designed keeping in mind the status of the teachers and level of their language.

Collection of Data

The data were collected through questionnaire, and the researcher approached to respondents himself or through friends for filling the items of the instrument. A coding scheme was prepared and data were tabulated separately. Simple percentage formula was applied for the analyses of the data.

Analyses of Data and Findings of the Study

Table-1	
The Headmaster/ Principal observe your classroom teaching	ng.

Observation of classroom teaching by the supervisor	Male	Female	Total %
Yes	8	6	17.5
No	20	22	52.5
Sometimes	12	12	30

the When respondents were asked that whether the Headmaster/Principal observe your classroom teaching: 52.5% amongst the sample responded that it has not been observed by the Headmaster/Principal whereas 17.5 % have the opinion that it is observed by him.30% of the sample group has the opinions that it is observed sometimes. It means that the majority of the teachers working in the District Rawalpindi are performing their duties without any type of supervisory help from the administration. There is no body in the school that provides help and guidance in solving the problems that the teacher faces inside the classroom. The leadership at school level has no plans to share with the teachers the difficulties that are faced by him/her in the classroom. It will not have any positive effects on the professional improvement of the teachers and also on the achievements of students.

Table-2

Problems identification And solution.	Male	female	Total%
Yes	8	6	17.5
No	32	34	82.5

Identification of problems and support provided by the Headmaster to solve them.

The analysis of this table reveals that there are only 17.5% of the supervisors who provides assistance to teachers in the process of identification and the solution of problems whereas 82.5 do not provide any type of assistance in the process of identification and solution of problems to the teachers. It means that the teachers are working all alone without any source of guidance from the supervisors to identify the problems and no opportunities have been provided from the department to improve their skills as a teacher.

Table-3

Friendly, supportive and democratic attitude in the process of identification of Problems by the H.M.

Friendly attitude in the process of identification of problems	Male	Female	Total%
Yes	8	6	17.5
No	20	18	47.5 ·
Somewhat	12	14	32.5

47.5% of the respondents opinion have the that the Headmasters/Principals display authoritative attitude in the process of identification and solution of the problems that the teachers face in the classroom. His attitude is neither supportive nor democratic in working with them. Whereas 32.5% of the sample groups have the opinions that the attitude of the Headmaster/Principal is somewhat supportive and democratic but not up to the required standard. Only 17.5% of the sample group has the opinion that they follow democratic style in the process of identification and solution of problems. It means that the majority of the supervisors deals with teachers in autocratic not in democratic way and they do not give value to the opinions

of the teachers at all. It will be very difficult for the teachers to share their problems, which they face in classroom in such an authoritative environment.

Table-4

The plan of lecture observation is mutually discussed and agreed between you and Headmaster.

Lecture observation plan is Mutually discussed and agreed.	Male	Female	Total%
Yes	6	4	12.5
No	28	30	72.5
Sometimes	6	6	15

The analysis of this table reveals that 72.5% of the supervisors do not discuss the lecture observation plan with their teachers whereas 15% of the sample group have viewed that it is discussed and agreed between supervisor and teacher sometimes. Only 12% have the opinions that it is mutually discussed and agreed. It means that the supervisor visits a small number of classrooms; and they are also without any planning and organized strategy to improve the teaching learning process in the classroom. Neither the teachers focus on the objectives of lecture observation or the supervisors' concentrate on the specific area, which is going to be observed by him. And they do not give any importance to the clinical model of supervision.

Table-5

Headmaster/Principal feels happy and encourages discussion of the problems that the teacher faces in the classroom.

Encouragement from headmaster For mutual sharing of problems.	Male	Female	Total%
Yes	5	8	16.25
No	27	22	61.25
Somewhat	8	10	22.50

61.5% of the sample group has the opinion that the H.M does not feel happy and encourages the sharing of classroom problems and 22.5% have viewed that he feels somewhat happy and encourages the teachers about the discussion of classroom problems with him. Only 16.25% have the view that they freely discuss the problems that they face in the performance of classroom activities; and the supervisor feels happy on the sharing of these problems. It is very difficult to improve the professional capacities of the staff without openly interacting with the senior partner who has spent some time in this profession. It is also violation of the basic concept of supervision that basis on sharing of ideas.

Table-6 H.M competent enough to guide and facilitate you in solving the problems.

Competency of supervisor.	Male	Female	Total%
Yes	16	10	32.5
No	6	12	22.5
Somewhat	18	18	45

On the competency of the supervisors: 22.5% have responded that they are not competent enough to guide and facilitate us in the class room whereas 45% have the view that they are somewhat competent to support and guide teachers in the process of improving instruction. Only 32.5% of the sample group have the view that they are competent enough to facilitate and guide the teachers in the classroom. It means that the majority of the Head of institutions are not competent enough to guide their staff to perform the educational activities in the classroom. It means that we have to review the procedure of promotion of the Head of the institution that entirely basis on seniority of service.

Table-7

Meeting of staff at the start of academic year for the planning of academic activities.

Meeting at the start of academic year for planning.	Male	Female	Total%
Yes	10	8	22.5
No	16	18	42.5
Sometimes	14	14	35

We are not able to achieve the targets in time without adequate planning. For this purpose, the planning of the whole year's activities is very important. There is 42.5% of the sample group who have the opinion that the supervisors do not convene any meeting at the start of academic year to formulate a plan for whole year work; and 35% have the opinions that it is done sometimes by the supervisor but not regularly. Only 22.5% have responded that it is done by the H.M regularly. It means that the majority of the teachers are not guided at the start of academic year that how they have to proceed during their full year term. They are not able to check themselves about the pace of their work during the academic year.

Table-8
Guidance and supervision from senior teachers
for improving teaching.

Guidance from senior	Male	Female	Total%
teachers			
for improving teaching			
Yes	12	6	22.5
No	18	22	50
Sometimes	10	12	27.5

We face so many difficulties at the start of any new activity because of lack of experience. We are in need of immediate guidance on the part of the senior members in the field. In the same way, when the fresh appointee enter into the field he or she has to face lot of problems in the performance of the required task.50% of the sample group have viewed that they are not provided any type of supervisory assistance from the senior teachers in the start of their career and 27.5% have the opinion that somewhat guidance is provided to them from the senior teachers at the start of their career. Only 22.5% have the opinion that the supervisory assistance is provided by the senior teachers. It means that majority of the teachers have worked at the start of their career without any type of guidance on the part of senior teachers. It will be very difficult for the newcomers to operate in the classroom without the support from the senior colleagues.

Delegation of responsibilities by the H.M.	Male	Female	Total%
Yes	28	24	65
No	4	6	12.5
Sometimes	8	10	22.5

Table-9 Delegation of responsibility to suitable staff members to improve the functioning of school.

The analysis of this table reveals that there are 65% supervisors who delegate the responsibilities to the staff for smooth functioning of school whereas 12.5% of the sample groups do not delegate responsibilities to the appropriate members of their team. It also indicates that 22.5% of the sample group has responded that it is delegated sometimes by their supervisors but not regularly. It is not possible for a single person to perform the entire working of the institution himself. He needs the cooperation of the staff to perform different activities. He has to delegates the authority to suitable person to get the work done and to guide him.

Table-10

Explanation and rationale of decision provided by the H.M.

Explanation and rationale of decision	Male	Female	Total%
Yes	12	9	26.25
No	18	20	47.5
Somewhat	8	11	23.75

It is the nature of human beings that they put their life and soul into the work when they understand its effects and advantages. When the supervisor is going to dictate the decision without any explanation and rationale: the team mates will not put their all out efforts in the activity. The table reveals that there are 47.5% of the supervisors who do not explain the rationale of the decisions and demand blind following from the staff whereas 23.5% of the sample group has responded that it is done sometimes by the supervisors but not regularly. Only 23.5 of the sample group have the opinion that the explanation and rationale of the decision is given by the Headmaster/Principal. It means that the majority of the supervisors acts in autocratic way and get the orders implemented without any rationale and explanations.

Tiredness and frustration In school.	Male	Female	Total%
Yes	6	10	20
No	10	14	30
Sometimes	24	16	50

Table-11 You always feel tired and frustrated in school.

The analysis of this table reveals that 20% of the sample group have viewed that they feel tired and frustrated in school whereas 50% of the sample group have the opinion that they are sometimes fed up and frustrated in school.30% of the respondents viewed that they do not feel any type of tiredness or frustration in the school. It means that a reasonable number of teachers are frustrated in school because of the autocratic attitude in the entire working of the institution.

Table-12 District education officers, Deputy District Education Officers and Assistant education officers visit school to provide supervisory assistance to teachers.

DDEO, DEO, EDO, AEO visit school.	Male	Female	Total%
Yes	12	18	37.5
No	16	8	30
Sometimes or never	12	14	32.5

On the role of educational administration at District level; 30% of the sample group has responded that they do not visit school to know the problems faced to teachers whereas 32.5% have the opinion that they visit school sometimes but not regularly. Only 37.5% of the sample group has the opinions that they visit schools. It means that a great number of schools as is pointed out from the analysis of the table are not visited by the District

administration. It looks very difficult to improve the functioning of school without visiting them and sharing their problems.

Table-13 Purpose of their visits is to find faults of teachers and to bully them.

Purpose of their visits is to find Faults of teachers and to bully them.	Male	Female	Total%
Yes	20	24	55
No	8	6	17.5
Somewhat	12	10	27.5

When the respondents are asked to give their opinions on the purpose of the visit of the District administration: 55% have responded that they visit schools to frightened and find faults of teachers not to help them whereas 17.5% of the sample group have responded No. 27.5% of the opinions that they do not agree with the statement entirely but somewhat. It means that 77% of the respondents believe that the District administration visit schools to find faults of teachers and not to help them. They entirely follow inspectorial model of supervision. It is really a very painful and undesirable performance of the administration that does not view supervision as assistance, sharing and helping to solve the problems.

Table-14

The school climate is caring, friendly and supportive.

The school climate is caring, friendly and supportive; without any rivalry	Male	Female	Total%
among the teachers.			
Yes	20	18	47.25
No	5	8	16.50
Somewhat	15	14	36.25

The analysis of this table reveals that 47.25% of the respondents have the opinions that the school climate is friendly and caring without any rivalry among the teachers whereas 16.25% have the opinion that it is neither friendly nor caring and also pregnant with the teacher's rivalry.36.25% of the sample group have the opinions that it is not perfectly but somewhat supportive and friendly. It means that 53% of the sample group believe that school climate is not up to the required level in which the teacher are able to perform up to the highest level of their abilities. It shows that the supervisors are failed to create a conducive environment in school for the teachers to work and grow themselves professionally.

Constructive and innovative ideas are highly valued.	Male	Female	Total%
Yes	10	7	21.25
No	16	20	45
Somewhat	14	13	33.75

Table-15 Constructive and innovative ideas are highly valued, shared and implemented.

Change is a permanent reality of this universe; and positive changes are owed to innovative and constructive ideas. It is a frequent complaint against the school that it lacks the capacity to transform and modify itself according to the needs of the day. The supervisors instead of encouraging the innovative ideas tend to suppress them. The analysis of this table reveals that 45% of the supervisors do not give value to innovative and constructive ideas whereas 33.75% of the sample group have viewed that they provide somewhat importance to constructive and innovative ideas; but it is not up to the required standard. Only 21.25% have the opinions that the supervisors give high value to innovative and constructive ideas. It shows that the supervisors totally favour to follow the trodden path instead of encouraging the staff to go for innovative ideas. As a result, the school remains far behind as compared to the forward looking pace of society.

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Teacher as a channel of	Male	Female	Total%
reception and transmission.	l	l	
Yes	16	14	57.50
No	10	18	15.50
Somewhat	12	8	27

Table-16 The supervisors view teachers as channels of reception and transmission.

The analysis of this table reveals that supervisors do not give importance to the views and opinions of the teachers. They are merely taken as channels of reception and transmission. It shows that 57.50% of the sample group is in favour of the statement whereas 15.50% have the opinions that they are not viewed as a channels of reception and transmission.27% of the sample group have the opinions that they are somewhat considered as a reception and transmission channels. It means that the supervisors totally follow authoritative and autocratic approach in dealing with the teachers working with them. They completely ignore the participatory, clinical and democratic supervisory role that has very positive impact on the working of institution.

Table-17 School plant is attractive, reachable and located at ideal site for education purpose.

School plant is attractive, reachable and Located at ideal site for education purpose.	Male	Female	Total%
Yes	8	6	17.5
No	26	20	57.5
Somewhat	6	14	25

57.5% of the sample group have the opinions that the school plant is not located at suitable place and is not reachable for the students and teachers. Whereas 25% of the sample group have the opinions that it is located at somewhat ideal site for the school but not perfectly up to the standard. Only 17.5% of the respondents have answered, "yes" that it is an ideal place and reachable for the students and teaches. It means that 75% of the school buildings are located at not appropriate places for education purposes. It has negative effects on the entire learning process that ultimately lower the quality of education.

The facilities and equipments of	Male	Female	Total%
Schools are used properly.]
Yes	8	12	25
No	16	10	35
Somewhat	14	18	40

Table-18 The facilities and equipments of school are used properly and judiously.

The analysis of this table is about the utilization of the school equipments by the supervisor shows that the 25% of the sample group have responded that school equipments are used by the supervisors (Headmasters/Principals) appropriately and judiciously whereas 35% of the sample group have the opinions that they are not used properly by the supervisors.40% have responded that they are used somewhat appropriately but not perfectly. It means that 75% of the supervisors are not using the school equipments properly. In this way, they are not competent enough to utilize the facilities that are available to the institution and it will be great loss of the resources of the institution.

Table-19

Knowledge and awareness about the concept and models of supervision.

Knowledge and awareness about the concept of supervision.	Male	Female	Total%
No understanding and	36	38	92.5
awareness.			
Least understanding and	2	2	5
awareness			
Satisfactory understanding and	2		2.5
awareness]		

When it is asked about the knowledge and concept of supervision, and its models; 92.5% have no understanding of the concept of supervision and only 5% have least understanding about its meanings whereas 2.5% have satisfactory understanding about the concept of supervision. It means that 98 of the sample group have no understanding, even the meaning of the topic. It is very painful reality that the majority of the practitioner has no understanding of the topic. In this situation, it is totally useless to expect any positive professional development of the teacher community.

Conclusion

The conclusion of the study is as under:

The majority of the Heads of institutions who have also been assigned the supervisory role are unaware of the meaning and importance of supervision. They neither discuss the plan of classroom observation with their teachers nor do they visit classrooms. Consequently, the teachers are performing their duties without any type of supervisory assistance. There is no systematic planning on the part of supervisors to identify the problems that the teacher face in the classroom and commitment to solve them.

The Heads of the institution do not believe in the concept of supervision as a process of sharing, helping, guiding, counseling and motivating teachers to solve problems which they face while teaching in classroom rather they follow fault finding and authoritative approach to get them frightened and to bully them. They practice and follow the principles of inspectoral model of supervision, which has no place in this modern time. They do not give value to the opinions; innovative and constructive ideas offered by the teachers. Questioning and creative ideas are taken as breach of discipline. They are themselves not competent enough to help and lead the team; and as a result, the teachers are unable to share their problems with them because of lack of competency and their authoritative attitude.

The newcomers (fresh appointee teachers) in the education field are more severely affected because there is no one to help them in solving the problems, which they face in the classroom. The senior colleagues also play a role of silent spectator in helping the fresh appointees. Consequently, they have to face all the problems such as discipline and related to the classroom matters all alone with out any kind of supervisory help from the senior partners. The critical point is this that the attitude they adopt and techniques they learn at the beginning of their career would become the part and parcel of their lives.

It is the nature of human beings that they put their all out efforts when they are fully convinced about the importance and the need of work. The majorities of the supervisors do not explain the rationale of the decisions and demand blind following from the staff working in their institutions. As a result, they take it as a burden on themselves and develop a reaction against the authority. It makes the school climate very tiring and frustrating. They are unable to perform to the level of their abilities when they are considered as a blank slate or non-living organism that are at the disposal of the Heads to be used according to his own whims and likings; and leaving no space for the expression of personal opinions. They take this situation as a threat to their autonomy and freedom.

The present trend of education and especially of higher education is sharing of the cost by the family, student, society and the Government. It has been observed the supervisors do not properly utilize the facilities and equipment available to the educational institutions. In this way, it is wastage of the resources that are available to school.

Recommendations

Following are the recommendations of the study made on the basis of findings for improving supervisory practices in our schools:

- 1. There is an urgent need of the training programme for the supervisors working at secondary level to improve their knowledge, skills and attitude to perform their duties as a facilitator, guide, motivator, helper and the leader of the team. They should be trained to adjust themselves with different types of people having different temperaments and personality backgrounds. They should be well equipped with the art of motivating their team members for the performance of school activities. They should have highest sense of tolerance, skills of planning and motivating their staff members.
- 2. It is also recommended that professional supervisors should be appointed in secondary schools to help the administrators and teachers

working over there on the basis of clinical model of supervision which emphasizes on direct relationship between supervisors and supervisee.

- 3. It should be compulsory for the supervisors at school and District level administration to observe the teaching learning process in the classroom and to give recommendations to the training wing about the academic problems of the teachers. They should also be made responsible to conduct workshops at union council level for improving classroom teaching on monthly basis. For this purpose, enough Funds should be provided to schools.
- 4. The procedure of departmental promotion should be revised and over all competency and skills required for the performance of task as a supervisor/Headmaster/Principal should be given due importance Only the service seniority should not be made the sole criteria for the promotion of the Headmasters/Principals.
- 5. The senior teacher should be trained to provide supervisory facilities to the beginning teachers. They can play very effective role in the grooming of newcomers in the field.
- 6. The orders from the Ministry of Education; communicated through the district level administration should not be imposed with out any explanation and rationale. The supervisor must explain their back ground and impacts on the improvement of education system. It is a nature of human beings that they put their all out efforts when they know and recognize the advantages of the task. It would be more appropriate to thoroughly brief and convince the teachers before asking them to implement the changes.
- 7. The district administration should be specifically trained to work as a part of the school, not the authority of the school. They should consider the problems faced to teachers as their own problems. They should facilitate guide, motivate teachers instead of frightening them by the pomp and show of authority.
- 8. Constructive and innovative ideas should be highly valued, shared and implemented. The supervisor should encourage the teachers who are endowed with creative abilities and recognize them.

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- 9. The equipment of school should be used judiciously and properly; the supervisors should be trained to guide the staff about how to utilize the school equipments to get maximum output of them. There should not be any type of wastage in their use.
- 10. The school climate should be made friendly, supportive and based on mutual respect. The teachers should be indoctrinated about the importance of social harmony and its impacts on the education. There should be an environment in which teachers may feel ease and satisfaction, security and safety. They should work there as a member of family

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QUALITY OF INFRASTRUCTURE IN PUBLIC SECTOR UNIVERSITIES OF PAKISTAN AS VIEWED BY HEADS OF DEPARTMENTS AND STUDENTS

Bу

Sajid Rehman[•]

Abstract

This research article discusses quality of infrastructure in public sector universities of Pakistan. All the heads of departments and students of such universities constituted the population. From the cluster of twelve public sector universities, 120 heads of departments and 600 students were selected as a sample. Two questionnaires, one for the heads of departments and the other one for students, were administered at 5-point rating scale in order to collect their views about the quality of infrastructure in public sector university of Pakistan. Chi square technique was used to measure the quality of infrastructure. During the study, the heads of departments showed their satisfaction about optimal use of infrastructure to ensure the physical and intellectual health of its departments. Students were found to be satisfied with the provision of physical facilities like laboratories, libraries, playgrounds, cafeterias, hostels and dispensaries. However, they opined that laboratories were not at par with international standard. Furthermore, libraries were not equipped with the internet facilities and research material.

Introduction

The academic growth of a university depends upon the quality of infrastructures. Sufficient and well-run support services ensure physical and intellectual health of its department. The Higher Education Commission (HEC) was established in September, 2002 with a view to develop higher education policy and assist the universities and degree awarding institutions in the pursuit of quality education at the seat of higher learning, both public, and private sectors. Its objective is to work with the academic community, for qualitative and quantitative improvement of higher education and to aid in the socio-economic development of Pakistan (Shami and Hussain, 2005).

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The higher education in Pakistan is beset with many problems. Institutions of higher education have not been able to achieve the main purpose of higher education, i.e., to produce people with moral and intellectual excellence and academic ability that can develop logical thinking and contribute effectively towards the industrial, economic, technological and social development of the country. The most pressing issues of higher education in Pakistan include among others, a planed institutional frame work, inefficiency and ineffectiveness, problematic nature of design and delivery of service, irrelevance and wastage, under funding of low productivity in research (Isani and Virk, 2003).

The rapid expansion of educational system, limited financial input and periodic student unrest have eroded the teaching/learning process, despite the efforts of the government to improve the situation. Exchange between universities and industries have not been taken place. Higher education, which was supply-oriented in the past, is showing signs of working on the demands of the market. The growth of institutions in computing, engineering and business administration is neither a witness to working on the frontiers of knowledge, nor is it creating knowledge, which is the hallmark of modern university, seems less pertinent, given the low investment, scarcity of resources and paucity of funds to which this sector has been subjected. There is, however, inefficient use and wastage of public funds. The research base in the universities is weak, and inadequately equipped libraries, laboratories and shortage of qualified teachers continue to hinder the progress of higher education towards achieving international standards. The system of affiliated colleges is a source of great dissatisfaction. The lower level of Secondary and Higher Secondary Education suffers from almost the same maladies (Shami and Hussain, 2005).

Shami and Hussain (2005) categorize the major issues of higher education in Pakistan into (1) structural issues and (2) functional and instructional problems. Structural issues included bifurcation of higher secondary from degree classes, short duration of Bachelor's degree course, affiliation issues and tracheotomy of the system. Functional and instructional problems included limited access, tilt towards arts education and wastages, the problems of quality, faculty problems, outdated curricula, inadequate physical facilities and student support services and under funding. The quality of education and research assumes the existence of an adequate physical infrastructure that fulfils the needs. It also assumes, however, that such infrastructure is maintained and managed in the best possible way in the institution, and not mainly for the convenience of the managers. These conditions are far from being met in too many higher education institutions. In some institutions in developing countries, the libraries are now no more than book stocks dating back more than ten years; laboratories are merely rooms having out of date equipment which is particularly useless because the basic items for experiments are lacking; lecture halls are designed for half or one third of the numbers using them and paper is a rare commodity which requires long, costly and often fruitless effort to obtain (UNESCO, 1998).

The quality of infrastructure of the internal and external environment, not forgetting the infrastructure connected with the use and development of information technology without which networking, distance education facilities and the possibility of virtual university could not be envisaged (UNESCO, 1998).

Investment in development of the physical facilities of the institution go a long way in improving the quality of education while the Asian Model developed by UNESCO recommended one third of the educational budget for capital outlay (Natarajan, 1990).

Keeping in view the increasing access to scientific literature for increasing the research productivity of Pakistani institutions, the Higher Education Commission (HEC) announced to launch the National Digital Library programme. A launching ceremony was held at HEC, Headquarters Islamabad on 27th February, 2004.

The primary objective of this digital library project is to provide researchers within public and private universities in Pakistan and non-project research and development organizations with access to international scholarly literature based on electronic (on-line) delivery, with access to high quality, peer-reviewed journals, databases and articles across a units range of discipline to achieve the objectives; HEC has secured inclusion in programme for Enhancement of Research Information (PERI) of the International Network for Scientific Publications (HEC, 2004). The universities and research libraries, participating in HEC's Digital Library programme, have begun to overcome the first generation access challenge to be able to query databases and indexes of journals, articles and to download the required full text documents. The Higher Education Commission and the International Network for the Availability of Scientific publication, the main partner in HEC Digital Library programme, have linked up with Land University libraries, Sweden to adopt and extend their existing Electronic Library Information Navigator (ELIN) system so that it can be used by the universities in Pakistan.

Higher Education Commission is setting a national-level research repository which will, among other things, have a record of the Ph.D. thesis accepted by the universities of Pakistan. The Higher Education Commission has been actively engaged in devising a strategy to increase the visibility of research work published in Pakistan, to promote quality work, and also to address the issues of duplication and plagiarism. The setting up this Digital repository will address all these issues and will bring significant benefits to educational and research institutions in Pakistan, by improving the visibility and impact of indigenous research (HEC, 2005b).

For the achievement of quality infrastructure in Pakistan, the Allama Iqbal Open University was set up in 1974 and Virtual University was launched in 2001. Brief introduction of Virtual University is as under:

The launching of the Virtual University is a historical milestone for Pakistan in the field of higher education. It is expected to have great impact on the socio-economic growth of Pakistan. The idea of the Virtual University of Pakistan is to extend affordable, quality higher education to all the areas of Pakistan, based on the excellent existing telecommunications infrastructure. Pakistan Educational Research Network (PERN) is a nationwide educational Internet connecting premier educational and research institutions of the country. PERN focuses on collaborative research, knowledge sharing, resource sharing, and distance learning by connecting people through the use of internet and internet resources (HEC, 2005a).

Quite a few studies were conducted at PhD level to explore the deficiencies in infrastructure development. Akhtar (2002) proposed that income earned from self-financing should be spent to increase the quality infrastructure. Hamidullah (2005) concluded that playgrounds, common

rooms, cafeteria, hostel dispensary and transport facilities were, to a great extent, better in public sector universities of Pakistan. The present study was conducted to explore the quality of infrastructure in public sector universities of Pakistan.

Statement of the Problem

The purpose of this study was to investigate the views of heads of departments and students about the quality of infrastructure of higher education in public sector universities of Pakistan.

Objectives

The objectives of the present study were as follows:

- To explore the views of heads of departments about quality of infrastructure for the promotion of academic growth of the public sector universities of Pakistan.
- To find the opinions of students, satisfaction about the provision of laboratory, library, playground, cafeteria, dispensary and internet facilities in the public sector universities of Pakistan.

Procedure of the Study

The study was descriptive in nature and the procedure of the study is as under:

Population

The population of the study comprised 650 heads of university departments, 10471 teachers and 202871 students studying in 53 public sector universities/degree awarding institutions in Pakistan.

Sample

Method of cluster sampling was used in order to select the study sample of 720 people which was carried out in two stages. At the first stage, 12 cluster of universities were randomly chosen out of the total population of the 53 public universities. At the second stage, 120 heads of departments and 600 students were selected through random sampling procedure with 10 heads of department and 50 students from each selected cluster.

Research Instruments

Two questionnaires were developed, primarily to measure the variables of quality of infrastructure in public sector universities of Pakistan. The items in all the two questionnaires asked for information about the quality dimensions that were relevant to the respective categories of respondents. The questionnaires were used as a tool of research and were comprised of structured forms. This tool seemed more appropriate because it was easy to respond. It took a bit of time to answer. It kept the respondents solely enshrouded on the subject. It was relatively objective and fairly easy to tabulate and analyze.

Pre-testing the Research Instruments

In order to pre-test the above two questionnaires, two local public universities were personally visited. In these universities, questionnaires were administered among 20 heads of departments (10 from each university) and 100 students (50 from each university). They were requested to complete the questionnaire carefully and present their opinion about the items which were not clear and needed further improvement.

After a period of three weeks, the researcher collected the questionnaires from the respondents, examined and evaluated them carefully in consultation with the study supervisor. Keeping in view the suggestions given by the respondents, the researcher modified the questionnaires accordingly.

Data Collection

The researcher personally visited the sample universities and administered 600 questionnaires to students and 120 to heads of departments. The response rate was 100 percent.

Data Analysis

The following procedure was followed in analyzing the collected data:

1. The researcher counted, totaled and tabulated the responses of heads of departments and students on each category of the questionnaire item, which were shown in terms of number and percentage of respondents in each category. 2. The chi-square (one-way as well as two-way) was used to examine the statistical significance of the responses. For judging the validity of chi square results percentages were also used to verify the significance of each statement. The following formula was used for chi square (χ^2):

$$\chi^2 = \Sigma \qquad \frac{(fo - fe)^2}{fe}$$

(Garrett, 2000)

Results

The collected views were tabulated. Results were extracted by using Chi square and are presented as under:

Table 1 Categorization of heads of departments' responses regarding academic growth and infrastructure

[SA		A	Ū	D	1)	5	SD	χ^2	р
No	%	no	%	No	%	no	%	no	_%		
15	12.5	36	30	24	20	30	25	15	12.5	14.25*	>0.001
*	Signific	ant				df = 4	1		χ^2	at 0.05 :	= 9.488

The Table 1 shows that the calculated value of χ^2 is 14.25, which is greater than table value at 0.05 level. As the trend of respondents is towards "agreement", the statement "The growth of infrastructure keep the pace with the academic growth of university" is accepted.

Table 2Categorization of heads of departments' responses regarding
safeguard of infrastructure

S	SA	A	A		JD			S	D	χ ²	Р
No	%	No	%	no	%	no	%	no	%		ĺ
15	12.5	42	35	27	22.5	24	20	12	10	23.25*	< 0.001
* 5	Significa	nt			df	= 4			χ²	at 0.05	= 9.488

The Table 2 shows that the calculated value of χ^2 is 23.25, which is greater than table value at 0.05 levels. As the trend of respondents is towards "agreement", the statement "The University has effective mechanism for maintenance and optimal use of infrastructure" is accepted.

Table 3
Categorization of heads of departments' responses regarding
availability of resources to department for fair working

	SA	[A	U	JD		D	S	D	χ ²	р
No	%	no	%	no	%	no	%	по	%		
9	7.5	57	47.5	21	17.5	21	17.5	12	10	61.5*	< 0.001
* (Signific	ant			df	= 4			χ^2 at	0.05 =	= 9.488

The Table 3 shows that the calculated value of χ^2 is 61.50, which is greater than table value at 0.05 level. As the trend of respondents is towards "agreement", the statement "The university has sufficient and well run support services to ensure the physical and intellectual health of its departments" is accepted.

Table 4 Categorization of students' responses regarding availability of laboratory

S	A	I	1	Ū	D	1)	S	D	χ^2	р
No	%	No	%	no	%	no	%	no	%		
140	23.3	161	26.8	127	21.2	96	16	76	12.7	41.68*	< 0.001
* Sig	gnificar	it			df	= 4			χ ² ?	it 0.05 =	9.488

Table 4 depicts that the calculated value of χ^2 is 41.68, which is greater than table value at 0.05 level. As the trend of respondents is towards "agreement", the statement "Laboratories are available according to needs" is accepted.

Table 5Categorization of students' responses regarding availability of library

S	A	1	ł	τ	JD		D	S	D	χ^2	Р
No	%	No	%	no	%	no	%	no	%		
183	30.5	205	34.2	85	14.2	79	13.1	48	8	160.70*	< 0.001
* Si	gnificar	nt			df	= 4			χ^2	at 0.05	= 9.488

The Table 5 indicates that the calculated value of χ^2 is 160.70, which is greater than table value at 0.05 level. As the trend of respondents is towards "agreement", the statement "Libraries are available according to needs" is accepted.

 Table 6

 Categorization of students' responses regarding availability of play grounds

	SA ·		A	Ū	JD	1	D	5	SD	χ^2	р
No	%	no	%	no	%	по	%	no	%		l d
93	15.5	201	33.5	103	17.2	105	17.5	98	16.3	66.23*	< 0.001
*	Signific	ant			d	f = 4			χ^2	nt 0.05 =	= 9.488

The Table 6 shows the calculated value of χ^2 as 66.23, which is greater than table value at 0.05 level. As the trend of respondents is towards "agreement", the statement "Play grounds are available according to needs" is accepted.

Table 7

Categorization of students' responses regarding availability of cafeteria.

S.	A	1	4	U	JD	[D	5	5D	χ^2	р
No	%	No	%	no	%	no	%	no	%		
152	25.3	236	39.3	59	9.8	79	13.2	74	12.4	183.32*	< 0.001
* Si	gnifica	nt			d	f =	4		χ^2	at 0.05 =	= 9.488

Table 7 shows that the calculated value of χ^2 is 183.32, which is greater than table value at 0.05 level. As the trend of respondents is towards "agreement", the statement "Cafeteria is available according to needs" is accepted.

Table 8

Categorization of students' responses regarding availability of hostels facility

S.	A	1	¥	U	JD		D	5	SD	χ ²	р
No	%	No	%	no	%	no	%	no	% i		
144	24	196	32.7	111	18.5	85	14.2	64	10.6	89.95*	< 0.001
* S	ignific	ant			d	f = 4	1		χ^2	at 0.05 :	= 9.488

The Table 8 shows that the calculated value of χ^2 is 89.95, which is greater than table value at 0.05 level. As the trend of respondents is towards "agreement", the statement "Hostels are available according to needs" is accepted.

Table 9 Categorization of students' responses regarding availability of dispensary

5	SA		A	U	JD]	D	S	D	χ ²	p
No	%	no	%	no	%	no	%	no	%		
92	15.3	151	25.2	141	23.5	116	19.3	100	16.7	21.68*	< 0.001
* (Signific	ant			d	f = 4	1		χ^2	at 0.05 :	= 9.488

The Table 9 shows that the calculated value of χ^2 is 21.68, which is greater than table value at 0.05 level. As the trend of respondents is towards "agreement", the statement "Dispensary is available according to needs" is accepted.

Table 10Categorization of students' responses regarding availability ofLaboratories with international standard

5	SA	I	4	U	D	j	D	S	D	χ^2	р
No	%	no	%	no	%	no	$\frac{9}{0}$	no	%		
63	10.5	107	17.8	144	24	145	24.2	141	23.5	42.17*	< 0.001
* (Signific	ant			(lf =	4		χ^2	at 0.05 :	= 9.488

The Table 10 shows that the calculated value of χ^2 is 42.17, which is greater than table value at 0.05 level. As the trend of respondents is towards

"agreement", the statement "Laboratories are at par with international standard" is negatively accepted.

Table 11

Categorization of students' responses regarding availability of internet facility in library

	SĂ		A	Ū	J D		D	s	D	χ^2	р
No	%	no	%	no	%	no	%	no	%		
87	14.5	124	20.7	127	21.2	129	21.5	133	22.1	11.70*	>0.01
*	Signific	ant			d	f = 4			χ^2 at	t 0.05 =	9.488

The Table 11 shows that the calculated value of χ^2 is 11.70, which is: greater than table value at 0.05 level. As the trend of respondents is towards: "agreement", the statement "Library has internet facilities" is negatively accepted.

Table 12

Funds provided by higher education commission to the public sector universities for non-development and development expenditure for the period 2001-05 (Rs. Million).

Budget	2001-02	2002-03	%age increase	2003-04	%age increase	2004-05	%age increase
nNon development	3377.985	4110.514	21.09	5312.838	29.25	5379.470	1.25
Development	423.927	4265.009	906.07	4968.450	16.49	8940.076	79.94
Total	3801.912	8375.523	120.29	10281.288	22.76	14319.546	39.28

Source: HEC (2005)

The above table shows that development expenditure is gradually on the increase.

Discussion

The results of the study showed that the quality of infrastructure in public sector universities was quite better. Physical facilities like laboratories, libraries, playgrounds, cafeteria, hostels and dispensaries were available according to the needs. Hamidullah (2005) supported this idea who was of the view that playgrounds, common rooms, cafeteria, hostel dispensary and transport facilities were to a great extent better in public sector universities. The HIEC (2004) also supported this idea that for the enhancement of the quality of infrastructure and keeping in view, the increasing access to scientific literature for increasing the research productivity of Pakistani institutions. In this respect, the HEC announced the launch of National Digital Library programme.

But laboratories were not at par with international standard. Furthermore, some libraries had not proper internet facilities. Shami and Hussain (2005) supported this idea that the research-base in universities was weak. Libraries and laboratories were equipped inadequately. Natarrajan (1990) also supported this statement and viewed that investment in the development of physical facilities of institutions went a long way in improving the quality of education while the Asian model developed by UNESCO recommended one third of educational budget for capital out-lay.

As opined by the heads of departments, infrastructure growth kept the pace with the academic growth of universities. This became possible due to increase in funds provisions by HEC that increase the quality of infrastructure in public sector universities of Pakistan. The Table 12 illustrates that development expenditure in years 2001-02, 2002-02, 2003-04, 2004-05 was (Rs. million) 423.927, 4265.009, 4968.450 and 8940.046, respectively. The percentage increase recorded in the development budget during the years 2002-03, 2003-04, 2004-05 was 906.07, 16.49 and 79.74 respectively supposing 2001-02 as a chain base year.

Conclusion

Academic growth of a university depends upon the quality of infrastructure. Sufficient and well-run support services ensure physical and intellectual health of university departments. In the public sector universities of Pakistan, the growth of infrastructure kept the pace with the academic growth of universities. The universities had an effective mechanism for maintenance and optimal use of infrastructure. The universities had sufficient and well-run support services to ensure that physical and intellectual health of its departments. The provision of physical facilities like laboratories, libraries, playgrounds, cafeterias, hostels, dispensaries and press were satisfactory. However, laboratories were not at par with international standard. Furthermore, libraries were not equipped with internet facilities and research material.

Although the Higher Education Commission has increased funds for the provision of infrastructure, yet it seemed some universities lacked infrastructure that was basic academic needs of students. In the universities of Pakistan, laboratories were not at par with international standard. The libraries were also deficient with internet facilities and research materials. Both laboratories and libraries are major contributors in conducting the research in the universities. This showed low quality of infrastructure as far as laboratories and libraries were concerned.

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PERSONALITIES

PROF. MAJNOON GORAKHPURI An outstanding figure of literature

By Dr. Mahmudur Rahman[•]

It was in the year 1968 that a renowned professor from Aligarh University migrated to



Pakistan and settled in Karachi. Physically he was lean and thin. He grew flair and faltering. His vital energies were drooping owing to some deteriorating diseases. Even his eyesight was failing fast. Resultantly, it was impossible for this 75 year-old professor to read and write any more. But his potent starring was still on a high peak, his will power had not yet succumbed to the rushing streams of frustration and even the minarets of his memory were illuminating ceaselessly.

He started delivering extempore lectures on the great poet Ghalib. When the taped series of his deliberations published with the caption *Ghalib: Shakhs Aur Shair*, (Ghalib: as a man and a poet) all the conceptions about this classic genius turned into a new vision. This ailing but enthusiastic professor was Majnoon Gorakhpuri, well-known in the South Asian subcontinent as an outstanding figure of Urdu literature.

Ahmad Sadiq Majnoon was born in a village Paldah, situated in district Basti (U.P), on January 10, 1904. His father Maulvi Muhammad Farooq Diwana was a poet and even a politician. In the early decade of 20th century, his national songs had inspired the frustrated Muslims of undivided India to fight against the Raj. His following verses gained much popularity among the people:

> Uth, bandh kamar, kiya darta hai, Pher dekhKkhuda kiya karta hai; Jo umr ko muft ganwaiey ga, Wo akhir ko puchtaiey ga, Kuch baithey hat na aiey ga,

^{*} The writer is associated with AIOU as Incharge, Official Language Project.

Jo dhondey ga wo payey ga, Too kab tak dair lagaey ga, Uth, bandh kamr, kiya darta hai!

According to the prevailing traditions, Majnoon got his preliminary education of Arabic, Persian and Hindi from his grandmother who was a talented lady and had a good command over religious books. For English education, he was admitted to St. Andrews School, Gorakhpur. After matriculation, he joined Aligarh University. After doing B.A. (Hons) in English literature, he got himself enrolled in Agra University, In 1934, Majnoon did his M.A. in English. The next year, he took another Masters degree in Urdu from Calcutta University. During this period, he established a publishing house, namely *Aaiwan-i-Eshaat* and also brought out a literary magazine *Aaiwan*.

In 1934, Majnoon started his career as an English lecturer at St. Andrews, Gorakhpur. In 1935, he joined Aligarh University as Head of Public Relations Department. After few years, he rejoined St. Andrews as Head of Urdu Department, and served till 1958. The same year Majnoon went back to Aligarh University and worked as a Reader in Urdu Department till his migration to Pakistan in 1968. At Karachi University, Majnoon served as honorary professor of Urdu for ten years.

If all qualities of a prolific prose writer, an experienced critic, a conscious poet, a competent short story teller, a distinguished translator, an established essayist and renowned researcher could be embodied in one person – he would undoubtedly be called as Majnoon Gorakhpuri. Thus, the literary performances of Professor Majnoon are manifold.

Being highly impressed by Oscar Wilde, Prof. Majnoon wrote a number of stories in Urdu, mainly based on melancholic theme. Such kind of his writings introduced a new trend in Urdu literature. His short story *Samanposh* is regarded as one of the best pieces so far written in Urdu. Several collections of his original stories have already been published, such as, *Khab-o-Khayal, Sarnawist, Said-i-Zaboon, Majnoon Key Afsaney* and *Samanposh*.

In the field of criticism, Prof. Majnoon occupies a prominent place. His critical works are extremely logical in approach, deep in analysis and thought provoking in deliberation. He does not criticize impertinently and prejudicially, but with a broad vision of a philosopher and outlook of a reformer. It is because of this that every critical piece of Prof. Majnoon seems to be invigorating and inspiring. It is generally admitted that his criticism has given a new horizon to Urdu literature. On this subject, his most outstanding books include Adab aur Zindagi, Sher-o-Ghazal, Tarikh-i-Jamaliyat, Iqbal, Afana, Nokati-i-Majnoon, Tanqidi Hashiye, Ghalib: Shaks Aur Shair and Schoepenhauer.

With a solid grounding in English literature, as well as a good command over national language, Prof. Majnoon has successfully translated the selected pieces of Western authors. Through this painstaking job, he has undoubtedly enriched the Urdu language. Those outstanding authors selected for translation are Byron, Milton, Shakespeare, Oscar Wilde, Bernard Shaw and Matterlink.

The most distinguished but still neglected work of Majnoon Gorakhpuri is *Hindustan Ki Bahadur Ortein* (the brave women of India). In a prolific prose and impressive style, he has highlighted the lives and achievements of those women who had played a prominent role in the history of the subcontinent. This rare book gives much impetus to the women folk, who are generally discarded and discouraged in our society.

As the *takhallus* Majnoon indicates, he was even a poet. He used to publish his gazhals in the literary magazines, specially in *Nigar*, Lucknow. Prof. Majnoon had also compiled the poetic collection of Ibrat Gorakhpuri, the father of his friend and noted poet Firaq Gorakhpuri.

This man of manifold qualities died on June 4, 1988 at Karachi.

Some important books: Khab-o-Khayal; Sernawist; Majnoon Key Afsaney; Adab Aur Zindagi; Sher-o-Ghazal; Nukat-i-Majnoon; Naqoosh-o-Afkar; Ghalib: Shakhs aur Shair; Iqbal; Funney Afsana Nigari Ki Tarikh; Schoepenhauer; Tanqidi Hashiye.

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BOOK REVIEW

Title:The Power of Positive ThinkingAuthor:Norman Vincent PealePages:302Publisher:Vermilion, London

In this book under review, the writer has suggested a simple and workable philosophy of living. He says:

"I am the most difficult person with whom I have worked."

The way of life to which this is a witness, is wonderful. It is not easy, rather it is hard, but seems to be full of joy, hope and victory. This book will help us to:

"Believe in ourselves".

Based on religious teachings, the book takes an account of all such techniques that followed, can help the person overcome his weaknesses and dominate his fears, enabling him to lead a better life. It is written to suggest techniques and to give examples which demonstrate that:

"You do not need to be defeated by anything if you have peace of mind, improved health and a never-easing flow of energy."

These assertions, which may appear extravagant, are based on bonafide demonstration in actual human experience. By improving spiritual ability through our noble thoughts, we can rise above those obstacles which ordinarily might defeat us. The author says:

"We need to defeat only if we are willing to be. This book teaches you how to 'will' not to be'."

This book looks simply to be a practice, direct-action personal improvement manual. It is written with the sole object of helping the reader achieve a happy, satisfying and worthwhile life. The author thoroughly and enthusiastically believes in certain demonstrated and effective principles which, when practiced, produce a victorious and venerable life. Norman Vincent Peale was born and reared in humble mid Western circumstances in a dedicated westernised home. He says that when he sat down to begin writing the book, he knew that the best work required more ability than he possessed and, therefore, he needed help that only GOD could give.

He and his wife have the policy of taking GOD into working partnership in all of their problems and activities. So, they had a very earnest session of prayers, asking for guidance and put the project into God's hands. When the manuscript was ready for publisher, Mrs. Peale and he again prayed. They asked GOD only that it might help people to live lives that are more effective and efficient:

The book is written for the plain people of this world with deep concern for the pain, difficulty and struggle of human existence. The writer has also outlined some techniques. Through using them, we can modify and change the circumstances in which we now live assuming control over them rather than continuing to be directed by them. The most important thing which we get after this is that our relations with other people will improve.

What we Get and Learn from this Book

This book titled "The power of positive thinking", teaches a simple yet scientific system of practical technique of successful living that works, such as:

- Believe in yourself! Have faith in your abilities. Without a humble but reasonable confidence in your own power, you cannot be successful or happy.
- Self-confidence leads to self realization and successful achievement.
- A peaceful mind generates power.
- God is always with us.
- We can talk to Him.
- Lean upon Him.
- Get help from Him.
- Have the inestimable benefit of His interest, support and help.
- There is a Higher Power that can do everything for you.

 Believe that you are getting the answer. Believe that now, through GOD'S help, you are gaining power over your difficulty.

> Reviewed by: Ms. Munis Kashmeeri

A CONCISE DESCRIPTION OF THE NEW DEVELOPMENT AND ACTIVITIES AT AIOU

Title:	Vice Chancellor's Annual Report (2005-2006)			
Supervision:	Masooda Chaudhry			
Editing:	Zia Ullah			
Publication Incharge: Altaf Hussain Memon				
Compilation:	Research and Evaluation Centre, AIOU			
Publisher:	PPU, Allama Iqbal Open University, Islamabad			
Pages:	80			
Size:	23×36/8"			

It is universally known to all that Allama Iqbal Open University (AIOU) came into being in the month of July, 1974 under a prestigious Act of Parliament, Government of Pakistan. The main aim of its establishment was to develop the system of non-formal education in the Islamic Republic of Pakistan. It may not be out of place to mention here that the first institution of this unique and advantageous system happened to be the UK Open University, England. And this one, i.e. AIOU, is destined to be the 2nd in the long list of open universities of the world.

During three decades, the AIOU continued its long journey with patience, hardiness and enthusiastic speed. The light of knowledge, this institution has spread all around, seems to be much impressive. It is because of AIOU's sincere and dedicated efforts that in the fiscal year 2005-06, 796940 students have been declared successful and now they are illuminating their surroundings with the rays of knowledge, duly acquired from their *Alma Mater*, i.e. AIOU.

The long and dedicated journey which AIOU had started in the early 1970s, now comes at the threshold of financial year 2005-06. It has been the normal practice of this institution to bring out a periodical statement showing all its achievements and activities. This very practice has been anewed even this year through publishing the periodical report for the precedent year (2005-06) containing 80 pages, and carrying a number of coloured photographs, charts and tables. This report vividly highlights the enormous activities and impressive performances of this institution of repute.

Having a look on the content, it comes to the notice of a reader that the scope of activities of Allama Iqbal Open University is much broad and wide. A number of faculties are imparting education in various and vital disciplines, such as Computer Science, Engineering and Technology (I.T.), Environmental Science, Home and Health Science, Adult and Continuous Education, Special Education, Women Studies, etc. These are the subjects which seem to be the most prestigious in the modern era of Information Technology. Thus, AIOU has been playing a vital role in eradicating illiteracy from the nook and corner of the country and bringing its masses at par with the highly advanced people of this global village.

About the aim and object of this mega-university, the Vice Chancellor, Prof. Dr. Mahmood H. Butt has rightly declared in his Foreword:

"The university aims to transform lives and serve society by spreading useful knowledge, fostering ethical scholarly dispositions and developing professional competencies and skills of its students."

> Reviewed by Dr. Mahmudur Rahman

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