

Information Needs and Seeking Behavior: A Comparative Study of Regular and Distance Learning University Students of Khyber Pakhtunkhwa, Pakistan

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Abstract

In any civilized country of the world, provision of learning facilities is the fundamental right of each individual in society. It is a clear fact that both are basic ingredients for development and social growth for every nation. The comparative assessment of information needs and seeking behavior of regular and distance university students in Khyber Pakhtunkhwa is the basic theme of this study. Cross-sectional survey method was used for data collection. A self-designed questionnaire was distributed among four hundred respondents; three hundred and forty eight were received. To facilitate academic success, it is suggested that broad range of library services i.e. reference and referral services, critical thinking skills, formal and informal group instructions, identification of needed information skills, and effective and ethical use of intellectual and physical resources, should be provided to the students.

Keywords: *Information needs, Information-Seeking Behavior, Regular Students, and Distance Students.*

1. Introduction

Information is a basic need of human beings like food, water, and shelter. University Grants Commission (UGC) of Pakistan, currently Higher Education Commission (www.hec.gov.pk), cites a quote by Norbert Wiener (1950, p. 17-18), “to live effectively is to live with adequate information” (UGC, 1986, p. 12). According to the National Education Policy of Pakistan (1998), the survival of nations in this fast-paced age of information depends on the production and consumption of information by its people. The economy of the world has become knowledge-driven. Knowledge and information are the main catalysts and engines that will drive the world in the 21st century. The last two decades have witnessed an explosion in both

telecommunication and computing. The result of this transformation is the world in which we now live - the *Information Age*. Due to rapid changes in every field of life, information has become a key commodity for survival in this world (Nasreen, 2006). Knowledge and information have become the principal forces for social and cultural change.

The clearest definition of information in literature is that it is used in decision-making. Aiyepoku's (1992) view is that information reduces uncertainty in decision-making. Good decisions have roots in authentic and accurate information and lack of relevant information often results in the failure of policy-making and collapse of the administrative structure. Wolpert (1986) stated that information is needed to help prepare for, adjust to, and enjoy one's environment. Majid and Kasim (2000) are of the view that information provides resources for an informed citizenry and is a key commodity of social development. According to Reitz (2014) in the *Online Dictionary of Library and Information Science (ODLIS)*, information is "data presented in a readily comprehensive form to which meaning has been attached within the context of its use," so that any person who receives data and understands the meaning would be informed. Cawkell (2003) explained the term information as "collection of data in a detailed form, competent for communication and use". Martin (1995) was of the opinion that it is an instrument that contributes or customizes the knowledge base. Buckland (1991) elucidated that information is an action of an individual with a query in mind. It solves a problem when merged with data.

1.1. Information Need

Lack of self-sufficiency can constitute an information need, a gap in the knowledge of the user (Devadason & Lingam, 1997). This gap is seen as a combination of two unique concepts, "information" and "need" (Nasreen, 2006). According to Line (1974), the word "need," has contextual meaning with, "what an individual need for acquiring higher education and research." Taylor (1968) was the first to introduce the view that information need is a "personal, psychological, sometimes inexpressible, vague and unconscious condition". It is a subjective concept in the minds of individuals experiencing it (Wilson & Streatfield, 1981) and is defined as the recognition of the existence of uncertainty (Krikelas, 1981). *The Librarian's Thesaurus* defined information need as "that need which library services or materials are intended to satisfy." According to Wilson (1999), "a gap in an individual's knowledge, when experienced at

the awareness level as a question, gives rise to find an answer. If the need is urgent, the search may be pursued with diligence until the desire is fulfilled” (p. 32). It can also be defined as “information need as what the one actually required for his job, for his research related studies, and for leisure activities” (p. 11). In summary, fulfilling the gap and uncertainty in an individual’s knowledge of any given situation is called information need.

1.2. Information-Seeking Behavior

The word “information-seeking behavior” has been in practice in the literary world since 1950(Hayden, 1999). The concept of information needs and seeking behavior can be traced back to 1948 when a research paper was presented by Bernal (1960) at the Royal Society Conference.

Since then, a reasonable amount of literature has been written in a variety of ways. (Anwar, Al Ansari & Abdullah, 2004). Case (2002) estimates that 10,000 research documents have been published on this important topic in the 1990s alone.

Different authors of the world described information-seeking behavior from their own words. Wilson (1999) states that information-seeking behaviors are “those activities that a person may engage in when identifying his or her own needs for information, searching for such information in any way, and using or transferring that information.” Every information user seeks information for its own purpose. In the current modern era, information seekers all over the world started using technology and the Internet for their information needs. This changing trend led to a modern, advanced era for information seekers and benefited them in many ways.

1.3. Distance Education

Rumbles and Keegan (1982) described “Off campus education in an umbrella word that covers those learning opportunities that are offered remotely. This is also termed as distance learning. This sort of education is in practice both in under developed and advanced countries of the world. These nations include USA, Australia, Germany, France etc. Developing countries like Pakistan and India have also this system of education.

1.4. Significance of the Study

This concept varies from country to country and the study of those needs and behaviors is especially important for students in countries like Pakistan and Bangladesh etc. A critical analysis of the needs and requirements of both open-learning and on-campus university students

would facilitate the administration and management of the university in redefining their goals and priorities. Librarians, information managers, and other information providers struggle to know their users and their information needs, so they can build up and offer suitable user based library systems (Rafiq& Ameen, 2009). To meet these needs, academic institutions must provide important elements of bibliographic and research instructions by librarians to on-campus students and to the distance learners. For librarians and tutors to help patrons find the information they are seeking, an effort must be made to investigate the information behavior of students in this changing learning environment: the channels of information students use, the sources of information they choose, the search processes they go through, and the emotions that the students experience during their interaction with information. Research data on the IN& ISB of correspondence students are needed for the acquisition of learning material, teaching contents, services, and facilities for both on-campus and distance students, particularly the poor nations of the world like Pakistan. The main motto of this paper is to examine and compare the Information needs (IN) I,E learning requirements and Information Seeking Behavior i.e Searching Behaviors (IN &ISB) of the open-learning and on-campus university students in Khyber PakhtunKhwā (KP). There are 29 universities in the province: 19 are public sector, 10 are private sector. This study of regular and off campus students comprises of which information sources they prefer, procedure adopted for acquiring the needed information, the library usage, and level of satisfaction with current infrastructure. A good number of research studies have been carried out on this important area of library and Information Science in KP, but no specific study could be located that compares the IN & ISB of regular students versus distance education students.

As the number of students attending universities in KP is increasing and expected to keep rising in the future, universities need to address the information needs of both on-campus and distance students. However, it seems that little attention has been given in KP to IN&ISB of students, so this study attempts to fill this gap.

1.5. Objectives of the Study

The main focus of this study is to conduct a comparative analysis of information needs and seeking behaviors of on and off campus university students of Khyber Pakhtunkhwa. Following are the objectives of study:-

1. To determine the information needs and seeking behaviors of the distance learning and regular university students in KP.
2. To compare the resources and material used by the students of both categories for finding their required information.
3. To explore the methods employed by students in finding their needed information.
4. To identify major constraints and challenges faced by the students.
5. To suggest possible measures for improvement of the current situation.

1.6. Research Questions

1. What kind of information sources are preferred by both groups?
2. What are the educational and informational needs of the distance learning and regular on-campus university students?
3. For what purpose are the students seeking information?
4. What methods are used by the students for getting their needed information?
5. What problems or barriers to information are identified by the students?

2. Literature Review

A study by Thani and Hashim (2011) on the information needs and seeking behavior of graduate students in Malaysian Public University found that graduate students agreed on six stages of the information-seeking process: 1) initiation stage when they became aware of an information need, 2) selection/identification of a topic to be investigated, 3) exploration of general information on the topic, 4) formulation of a search strategy to find more specific information, 5) collection of pertinent information and 6) presentation or appropriate use of information in exams or papers (p. 142).

A study by Arif and Mahmood (2009) to measure the perception of distance learning tutors indicated a dire need for a proper library building with resources. Oladokun and Aina (2009) assessed the approach of off campus students of the University of Botswana. It was reported that the major information needs of distance learning students were : documents about their courses, information about job seeking, and queries about getting higher education. Bhatti and Jumani (2012) conducted a study of students and tutors about the usage of information centers in distance learning along with obstacles in using the libraries. The results indicated numerous barriers: inappropriate library hours, long distances to the libraries, non-availability of

current journals, deficiency of needed materials and up to date books, and insufficient library personnel. They recommended an increase in library hours, latest books and journals, computer, and Internet services.

Ajiboye and Tella (2007) discussed the seeking attitude of university students in Africa. Most respondents (54.4%) relied on the Internet rather than lecture notes and used textbooks, newspapers, school library, electronic resources, CD-ROMs, databases, print journals, university bookshop, theses, and dissertations for acquiring scholarly documents. Qureshi, Zafar, and Khan (2008) surveyed the information needs and information-seeking behavior of Pakistani university students and found that cultural and educational background, and student engagements are the major factors that affected students' information-seeking behavior.

Mahajan (2009) examined the information-searching attitude of Punjabi graduate students at two universities of India. It was found that the library resources used by the most of the students were print (textbooks, dictionaries & encyclopedia, journals, reports) and electronic resources. About fifty percent of the students surveyed have knowledge about e-resources and were accessing it. Less than half were of the opinion that they are using both version of resources. The author recommended workshops and awareness programs for actual use of electronic resources. Oladokun (2010) randomly selected 100 students from two satellite centers at the University of Botswana to pinpoint their desired information version. He found the majority (71%) preferred print to electronic, audio or video.

Callinan (2005) conducted a study on new entrants and pass-out biological students at the University College of Dublin. The basic theme of this study is to determine the information-seeking behavior of undergraduate students. Results indicated 1) a difference between the two groups in the extent to which resources are used and 2) undergraduate students lack awareness of the library's electronic databases. Martin (2008) attempted to investigate the information-seeking behavior of undergrad army personnel. The findings of this survey showed that respondents rely primarily on the Internet (65%), on academic journals (16%), and on books (8%); they did not rely on newspapers or popular magazines as major sources of information.

Sookhtanlo, Mohammadi, and Rezvanfar (2010) conducted a comparative study on the information-seeking behavior of undergraduate and graduate students at agricultural extension and educational institutions. A data collection instrument was distributed among the respondents

to get the required data from 290 out of 650 registered students. The study results indicated that there was a difference and that graduate students had more access to information sources than undergraduates.

3. Methodology

It was a comparative study about the information needs and seeking attitude of regular and off campus students of KP Universities. Covey (2002) was of the view that a survey is a more suitable method of collecting information about population current attitude, their behaviors, feelings, and beliefs. After reviewing several studies on related topics, the survey method seemed best for this type of study. Mills and Airasian (2010) stated that for data collection, “research survey in an instrument that highlights one or more characteristics of a specific population” (p. 175).

A questionnaire was deemed more suitable for this kind of survey and before designing of the data collection instrument; various research studies were consulted and analyzed. The medium of instruction in most universities is English; therefore, the instrument was designed in English for data collection. The instrument was sent to three experts for validity. The changes suggested by the reviewers were made for refinement. The revised version of the questionnaire was distributed among a small proportion of the respondents other than the target respondents. The responses received were tested through Alpha Cronbach test for reliability. As the value of Alpha was .80 show that the instrument is reliable.

The study consists of two populations:

Population 1 - comprised of masters-level distance learning students of AIOU in Khyber Pakhtunkhwa and Sarhad University of Science and Information Technology Peshawar.

Population 2 - comprised of masters-level regular on-campus students of Peshawar University and University of Science and Technology Bannu. Permission was taken from the management where required.

Questionnaires were completed during physical visits to the institutions during classes, departmental libraries (libraries attached to teaching departments), and during workshops. 400 questionnaires were distributed; 348 filled questionnaires were analyzed using Statistical Package for the Social Sciences (SPSS).

4. Data Analysis and Results

4.1. Demographic Data

Survey participants were first asked about their demographic information. There were 348 respondents (response rate of 87.0%). Of these 237 (68.1%) were male and 111 (31.9%) were female. Additionally, 191 (54.9%) were regular students and the rest (45.1%) were distance-learning students. Data collected showed that out of 348 respondents, 94 (27.0%) were under 21 years of age while 187 (53.7%) were 21-31 years followed by 50 (14.4%) were in the age group of 32–40 years and 17 (4.9%) in the age group of 41 and above.

RI. What kind of information sources are preferred by both groups?

The population were enquired to highlight the learning resources used for most of the time to find the information needed for their studies or related activities. A five-point Likert scale was used (N=Never, R=Rarely, O=Occasionally, F=Frequently, A=Always). Data analysis showed the majority of respondents, both regular students (79%) and distance-learning students (72%), rated “Lectures” as their main source of information that was “Always” required for study; followed by “Course Books” (57% regular, 68% distance students); and “Other books” (25% regular, 34% distance students) that were used “Occasionally”. “Previous Lectures notes” were marked by 41 percent of regular and 15 percent of distance students. 24 percent regular and 15 percent distance students marked the option of “Others”. The results showed that “Lectures” were the main source of information that was always required for both regular and distance learning students for their studies.

An independent sample t-test was carried out to study regular and distance students with respect to sources of information required for study-related activities. Results of independent sample t-test indicate that there is no significant difference between regular and distance learners’ required information from lectures and course books, but there is a significant difference between regular and distance learners when getting information from other books, previous lectures notes, and other sources of information. The results show that the mean score of regular students (mean = 3.87, SD=1.279) using other books is greater than the mean score of distance students (mean = 3.55, SD = .927). The mean score of regular students (mean=3.69, SD=1.389) using previous lecture notes is greater than the mean score of distance students (mean = 3.28, SD = 1.005). The mean score of regular students (mean=3.63, SD= 1.274) using other

kinds/sources of information is greater than the mean score of distance students (mean = 3.25, SD = 1.174).

R2. What are the academic requirements educational and informational needs of the distance learning and regular on-campus university students?

Respondents were asked to identify their main information needs from a list of possible information needs (i.e. job opportunities, subjects relating to their study, scholarship for furthering their education, and post-graduate programs). The results of this independent sample t-test indicate is the following:

- No significant difference between regular and distance learners when getting information about *job opportunities*.
- A significant difference between regular and distance students when getting information on *subjects relating to their study*. The mean score of regular students (mean= 4.42, SD=.969) greater than the mean score of distance students (mean=4.14, SD= 1.163).
- A significant difference between regular and distance students when getting *information on scholarship for further education*. The mean score of regular students (mean=3.94, SD=1.320) is greater than the mean score of distance students (mean=3.36, SD=1.158).
- A significant difference between regular and distance students when getting information on further education after the post-graduate program: regular students (mean=3.11, SD=1.404) is greater than the mean score of distance students (mean=2.45, SD=1.247).

R3. For what purpose are the students seeking information?

Respondents were asked to identify the purpose of seeking information. It was revealed that the majority of respondents (61% regular and 61% distance students) indicated that “Preparation for exams” was the primary information-seeking purpose for which they “Always” required information, followed by “Completing assignment” (55% of regular and 58 of distance students); “For updating knowledge” (49% of regular and 49% of distance students); for “Solving a problem at hand” (49% of regular, 22% of distance students); and for “Entertainment” (20% of regular and 07% of distance students) always required information respectively.

R4. What methods are being used by the respondents for acquiring their required information?

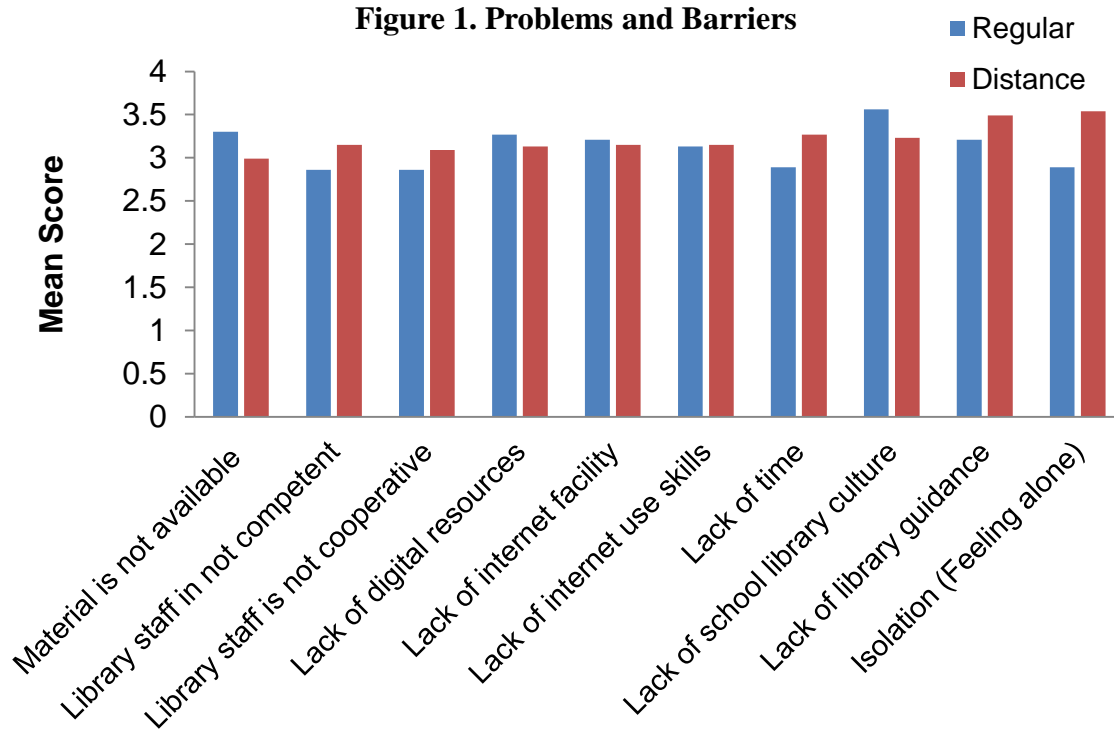
An independent sample chi-square test was conducted to compare the important information channels used by both regular and distance students from a provided list. The result of chi-square test indicates there is no significant difference between regular and distance students with respect to the library, Internet, bookstore, consulting knowledgeable persons in the field, and other channels. The result of the independent sample chi-square test indicates that there is a significant difference between students of both categories with regards to using library websites and search engines as the most important individual tool for searching for information.

The next question related to their preferred method of getting the required information from the library. The result of independent sample chi-square test indicates that there is a significant difference between both groups in visiting the library personally, calling the library, sending emails to the library, and other methods. Results indicate that regular students visit the library frequently as compare to distance students to acquire their required information. Distance students usually send emails and other use other methods for getting information.

R5. What problems or barriers to information are identified by the students?

An assessment of the responses provides a comparison of the barriers distance and regular students face when information seeking. Results of an independent sample t-test indicate that there is no significant difference between regular and distance learners with regard to the barriers: lack of material availability, lack of digital resources in their institution's library, lack of internet facility, and lack of skills required for internet use. However, results of independent sample t-test indicate there is a significant difference between regular and distance learners with regard to library staff competency, library staff's cooperation, lack of time, lack of school library culture in the community, and lack of library guidance. The results show the mean score of regular students (mean = 2.86, SD = 1.466) facing the problem of library staff is lower than the mean score of distance students (mean = 3.15, SD = .0596). The mean score of regular students (mean = 2.86, SD = 1.485) is less than the mean score of distance students (mean=3.09, SD=.559) when it comes to library staff being not cooperative. The results related to lack of time is that the mean score of regular students (mean = 2.89, SD = 1.374) is lower than the mean score of distance students (mean = 3.27, SD = .770). With reference to lack of school library culture in the community, the mean score of regular students (mean = 3.56, SD = 1.344) is

greater than the mean score of distance students (mean = 3.23, SD = 1.035). Regarding lack of library guidance and orientation, regular students' mean score (mean = 3.21, SD = 1.458) is less than the mean score of distance students (mean = 3.49, SD = 0.835) (Figure 1).



5. Findings & Recommendations

Keeping in view the analysis of data, following findings were extracted:-

1. *Lectures* were reported to be the main kind of information always required for both regular and distance learning students for their studies. *Books* are another major source of information for both groups of respondents.
2. *Preparation for examination* was selected as the major purpose of acquiring information by regular and distance learners.
3. More regular students visited the *library* personally to get their required information while distance students used the internet, *emails* to libraries, and other methods to get their required information.
4. Material availability, lack of digital resources in their institution's library, lack of internet availability and the proper skills required to use the internet, and lack of school library

culture are the major barriers to the fulfillment of information needs by regular and distance students.

5. The results indicates that there is no significant difference between regular & distance learners when seeking information about *job opportunities*. Results also indicated a significant difference between regular and distance students when getting information on a *subject relating to their study, information on scholarship (financial support) for getting higher education, and information on acquiring M. Phil and PhD education after a post-graduate program.*

5.1. Recommendations

This effort was made to pinpoint and compare the Information Needs (IN)& Information-Seeking Behavior (ISB) of on-campus and off-campus students. The following suggestions and recommendations could be beneficial and fruitful for thinkers, administrators and higher ups. On-campus students did not face problems regarding *lectures* due to the nature of their regular programs, but distance students faced obstacles regarding *lectures* that are required for their study and related activities. It is suggested that distance students need to be provided online or web-based lectures related to their programs, to enable them to fulfill their educational needs.

1. It is recommended that, with provision of course-related information, efforts should also made to provide additional orientation to off campus students like job hunting, professional development, acquisition of funding etc.
2. The library and the Internet were the most important and most-often used information channels for when obtaining needed information. It is suggested that Information Technology centers/internet cafes and Wi-Fi connections be provided to distance students.
3. As both groups utilized various information sources like electronic/digital material, audio/video material, journals, and magazines, it is recommended that marketing strategies should be employed to ensure the maximum use of library resources.
4. It is recommended that seminars/workshops pertaining to information researching skills should be conducted for both types of students.
5. Make sure speedy access to digital library databases especially HEC Digital Library for study programs of both categories of students.

6. It is recommended that well-established libraries with high-quality library services should be provided in each city at a central point for the facilitation of both regular and distance-learning students. These services should include reference and referral services, critical thinking skills instruction, formal and informal group instructions, identification of needed information skills, and effective and ethical use of intellectual and physical resources.

6. Conclusion

Information is a necessity for every individual, but especially for students. The provision of the right information to the right person is a privilege of each individual in a city or country. Students, being the future of a nation, need information for their continued growth and advancement. Well- established libraries with state-of-the-art facilities should be provided in educational institutions and local communities to provide information needed by regular and distance learners. These libraries should be equipped with modern tools and free internet access to digital repositories with remote access for the students. This practice will enhance the level of education of the students (on and off-campus), which will have a major impact on nation building.

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