

Approaches to Learning, Perceptions of Educational Environment, Academic Motivation and Learning Preferences: Analysis of Two Universities in Pakistan

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Abstract

This study investigated the students' perceptions of the educational environment, approaches to learning, academic motivation and learning preferences at two universities in Lahore. Multistage random sampling procedure was used to draw samples from the two universities. The total sample consisted of 912 students; 570 students from one university and 342 from the second university. The Course Experience Questionnaire (CEQ; Wilson et al., 1997) was used to measure the students' perceptions of the educational environment. Approaches to Learning and Studying Inventory (ALSI; Entwistle, McCune, and Hounsell, 2003) was used to measure the students' approaches to learning. The students at the two universities perceived their educational environment more positively in terms of generic skills that they had acquired during the course of study (critical thinking, communication skills etc.) than in terms of instructional practices, workload, assessment and learning resources. They showed greater preference for the educational environment that supports understanding than the educational environment that supports transmission of information. They tended to use all the four approaches to learning (deep, surface, organized and monitoring studying). According to the results of Multivariate Analysis of Variance (MANOVA), the students at the two universities differed in their perceptions of the educational environment, academic motivation and approaches to learning.

Keywords: students' perceptions of educational environment, approaches to learning, academic motivation, learning preferences

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Introduction

The study investigates the students' learning experiences at the two universities in Lahore. In the following sections of the paper, students' approaches to learning, their perceptions of the learning environment, academic motivation and learning preferences have been described, followed by the methods, analysis of the data, results, discussion on the results and the conclusion.

Approaches to learning

Approaches to learning are the ways of learning, such as the deep approach to learning is characterized by attempts to understand the meaning of the learning material, and the surface approach, on the other hand, is characterized by attempts to memorize the text (Marton and Säljö, 1976). Another approach to learning is strategic approach which is characterized by attempts to obtain the highest grades (Ramsden, 1979). According to Richardson (1994), the deep and the surface approaches to learning are found in all the systems of education.

The approaches to learning are the students' reactions to the learning environment (Biggs, 1999, p. 30). The same student may use different approaches to studying in different course units depending upon the demands of the courses, and different students may use different approaches in the same course unit depending upon their perceptions of the course (Richardson, 2009, p. 13). The way students learn seems to depend on the context, content and perceived demands of the learning tasks (Richardson, 2000, p. 32).

Literature shows that quality of learning is associated with approaches to study (Biggs, 1979; Haggis, 2003; Prosser, Ramsden, Trigwell, & Martin 2003; Ramsden, 1992); the deep approach is associated with better quality learning and the surface approach is associated with poor quality learning outcomes (Biggs, 1979; Ramsden, 1992, p. 53). The deep approach promotes thinking, critical analysis, understanding and ability to apply knowledge, and the surface approach has nothing to do with such things. The deep approach involves higher order cognitive processes than the surface approach. In case of the deep approach the student attempts to understand key concepts and to relate new knowledge to personal experience and previous knowledge (Kember, Leung and Mcnaught, 2008).

Table 1.1: *Defining features of three approaches to learning***Deep approach**

- Intention to understand
- Vigorous interaction with content
- Relate new ideas to previous knowledge
- Relate concepts to everyday experience
- Relate evidence to conclusions
- Examine the logic of the argument

Surface Approach

- Intention to complete task requirements
- Memorize information needed for assessments
- Failure to distinguish principles from examples
- Treat task as an external imposition
- Focus on discrete elements without integration
- Unreflectiveness about purpose or strategies

Strategic approach

- Intention to obtain highest possible grades
- Organize time and distribute efforts to greatest effect
- Ensure conditions and materials for studying appropriate
- Use previous exam papers to predict questions
- Be alert to cues about marking schemes[†]

Educational Environment

Curriculum, teaching, assessment, student-faculty interaction and institutional climate (rules and procedures) are main components of a learning environment (Biggs, 1999, p. 25). Learning environments may vary in their characteristics. They may differ with regard to teaching practices, student-teacher interaction, students' participation, assessment and a number of other variables. Some learning environments may be meaning oriented (that emphasize understanding), while other may be reproduction oriented (that emphasize memorization). Similarly, different aspects of the same environment may have different impact on students' approaches

Source: Richardson (2000, p. 28), adapted from Entwistle (1987)

to learning. For instance, teaching practices may encourage conceptual understanding while assessment may reward rote learning. Learning environments that are reproduction oriented and have little incentives for the students to actively participate in the learning process, promote rote learning (Wierstra, Kanselaar, Linden, Lodewijks, & Vermunt, 2003).

The learning environment may be student-centred or teacher-centred. The teacher-centred learning environment focuses on teaching and the student centred environment focuses on learning. In teacher-centred learning environment efforts are directed toward improving the teaching skills of the teachers to make the teaching more effective. Such an environment is not characterized by active involvement of the students and lecturing is a predominant mode of instruction in this environment. There is not very much interaction among the students and between the teacher and the students. It lacks debate and discussion in the classes and teaching learning process is unidirectional and dominated by the teacher. The teacher does not act as facilitator but as a dispenser of knowledge. The teacher focuses on transmission of knowledge to the students. The teachers who use teacher-focused strategy tend to encourage surface approach among their students (Trigwell and Prossor (1996).

The student-centred learning environment is characterized by active participation of the students in the learning process. Knowledge is not transmitted from teacher to students like the teacher centred learning environment but it is created through debate, discussions and teaching learning activities. “By providing safe spaces in which students are accepted and respected, and in which uninformed, ambiguous, non-rational, illogical, unclear ideas, expressions and play are welcomed and listened to, we can nurture creativity, the desire to learn...” (Mann, 2001, p.17). Constructive learning is associated with conceptual-oriented and student-oriented environment; whereas, reproductive learning is associated with reproduction-oriented and teacher-oriented learning environment (Wierstra, Kanselaar, Linden, Lodewijks, & Vermunt, 2003). Ramsden (1998) argues that teachers can enhance the students’ learning by creating student-centred environment where they have opportunities to be actively engaged with the learning tasks. “Institutions of higher education have a responsibility to create learning environments that promote deep level learning. To what extent this actually happens depends...on individual instructors...structure of the programme and culture of the department (Kreber, 2003, p. 59).

Higher Education in Pakistan

There was only one university (University of the Punjab) at the time of independence (August 14, 1947); it was established by the British in 1882. Now, there are 45 public sector universities and 29 private sector universities (Isani and Virk, 2003, p. 163).

Although, number of institutions increased rapidly since independence; however, the student participation remained low. Only 2.6 percent students between the age of 17 and 23 were in higher education (Isani and Virk, 2003, p. 173). According to Akbri and Naqvi (2008), participation rate has risen to 5 per cent which is still low compared to other developing countries; India has 12 per cent participation rate. Maximum age limit for entry into higher education in Pakistan is 26 years (Isani and Virk, 2003, p. 180).

Higher education in Pakistan has received special attention in recent years. Higher education's share in total education budget rose from 7 per cent, before 2002 to 13.7 percent in 2005-06 which resulted into 100 per cent increase in student enrolment in higher education (Akbri and Naqvi, 2008). Higher education institutions are opening in both public and private sectors. Higher Education Commission of Pakistan is funding PhD studies at higher educational institutions in Pakistan and abroad; it has also hired foreign faculty to supervise PhD students and to promote research culture at the universities. It has also reemployed the retired professors and placed them at the universities.

Higher educational institutions in Pakistan work in both public and private sectors. They can be further categorized into general and professional institutions. Almost all the universities except Allama Iqbal Open University, Islamabad (which is a distant learning university) provide campus-based learning and run full-time educational programmes. Professional institutions of higher education offer courses in engineering, medical, agriculture, management etc. Higher education is also offered by the institutions (public and private colleges) which are affiliated with the public universities. These affiliated colleges generally offer two-year B.A./B.Sc. and in some cases, M.A./M.Sc. programmes; however, examination and degree awarding functions rest with the universities with which they are affiliated. Most of the public universities have hostels to provide accommodation to the students who are from distant areas; the students, who cannot get accommodation in the hostels, arrange their accommodation privately, outside the campus.

Admission to universities and other institutions of higher education (both professional and general) is generally granted on the basis of marks obtained by the students in examinations (higher secondary school examination or B.A./B.Sc./B.Com. examination in case of admission to master's programmes) plus their performance in the entry test. The higher secondary school certificate is a minimum requirement for entry into the institutions of higher education in Pakistan. There is greater competition among students for admission to professional courses (engineering, medical, agriculture, management) than admission to general education. In the same university, there is more competition for admission to the courses which have greater demand in the employment market than the courses which have lesser demand. Admissions to the universities take place once in a year, generally, in July, August and September. Students in the public universities pay nominal fees; however, recently, most of the public universities have started a scheme of education on self finance basis, generally for the students who cannot fully meet the requirement of admission or marginally miss the conditions of merit. The self finance scheme has contributed to the revenue of the universities.

Generally, universities in Pakistan offer four-year B.A./B.Sc. honours, two-year M.A./M.Sc., two-year MPhil/MS and five-year PhD programmes. Diploma courses are also offered at certain departments of the universities. In general universities, some departments offer both four-year B.A./B.Sc. honours and two-year M.A./M.Sc. The two-year M.A./M.Sc. is generally for those students who have two-year B.A./B.Sc. pass degree; that is generally offered at the affiliated colleges. The students who have four-year B.A./B.Sc. honours degree, need not to do two-year M.A./M.Sc. in those departments because both M.A./M.Sc. and B.A./B.Sc. honours degrees require sixteen years education. So, B.A./B.Sc. honours is considered equivalent to M.A./M.Sc. and both the degrees make the candidates eligible for admission to MS/MPhil and PhD. The engineering and agricultural universities generally offer four-year bachelor's degree and two-year master's degree. The medical colleges or medical universities offer five-year bachelor's degree. LLB degree takes three years to complete after two-years BA/BSc, and LLM is a two-year course after LLB.

Most of the departments in most of the universities have semester system for examination, and there are two semesters in an academic year. There is a written examination at the end of each semester along with assignments, presentations etc., during the semester. Contribution of the written examination is greater than assignments, presentations and other things, in determining CGPA. The CGPA is very important for the students for admissions to educational institutions and for

obtaining good employment. Many students use help-books and notes to prepare for the examination; the help books contain ready-made answers to the questions that appear frequently in the examination. These help-books and the notes are prepared specifically for the examination; the use of help-books and the notes prevent the students from reading books and other material. Teachers of the colleges offer tuition (before or after the school hours), on payment, at home or at the tuition academies to prepare the students for the examination to obtain good marks. Siddiqui (2007, pp. 187-188) argues that assessment practices has tremendous influence on education in Pakistan. He maintains that philosophy underlying assessment system in Pakistan, is based on behaviourist model (learning is imitation and repetition); guiding paradigm considers knowledge as something out there to be memorized. According to him, existing assessment system in Pakistan requires good memory instead of critical thinking and application, and the students who possess it can get good grades by cramming the material.

Isani and Virk (2003) argue that there needs to be an interaction between universities, industry and R&D organizations for the development of science and technology in Pakistan (p.226). They maintain that curricula in higher education are outdated and not relevant to the real life issues and the world of work (p.226). Siddiqui (2007, p. 97) argues that curriculum in Pakistani educational system is characterized by non-relevance with real life, out datedness, fixity and lack of regular revision. He maintains that the term 'curriculum' in Pakistan needs to be reconceptualized; it is viewed by decision makers as content to be covered in a stipulated time. According to Isani and Virk (2003), higher education in Pakistan is not up to international standards, and universities are not geared to create new knowledge (p. 231). Higher educational institutions lack support services such as laboratories, field equipment, and libraries (p. 233). They further argue that one of factors that affect quality of education is short duration of degree programme; first degree is awarded after 14 years of education, it is awarded after 16 years of education in most of other countries.

Method

Population of study

The study was conducted with students who were enrolled in honours or master's degree programmes at two public sector universities in Lahore. If a department was running both the honours and the master's degree programmes then the students who were in honours degree programmes were included in the

population; however, the students in master's programmes were included if the department did not offer the honours programme. The population included both the male and the female students in all the years of the educational programmes offered in the morning and afternoon/evening.

Sampling

Multistage sampling procedure was used to draw samples from two clusters (two universities) of the population. The samples were conducted separately at the two universities. At the first stage, all the departments of each university (which offered honours programmes or master's programmes or offered both honours and master's programmes) were divided into four categories of disciplines: social sciences, science and technology, humanities and management sciences. At the second stage, sampling frames were formed at the each sampled department at both the universities. Then samples of the students were drawn from the sampling frames prepared at the sampled departments by taking into account the year of study and timing of the educational degree programme. The total sample consisted of 912 students from 22 departments in the four subject areas at the two universities. In total, there were 494 males and 418 females aged between 17 and 27 with a mean age of 20.53 years.

Instruments

The questionnaire consisted of five parts. Part A was based on the 36-item Course Experience Questionnaire (CEQ; Wilson, Lizzio, & Ramsden, 1997) and was used (after minor changes to make it suitable for use in Pakistani context) to measure the students' perceptions of their learning environment. Based on a factor analysis of the students' responses to this part of the questionnaire, Ullah et al. (2011) defined four scales: Instructional Practices (containing 13 items), Appropriate Workload (4 items), Generic Skills (12 items) and Appropriate Assessment (3 items).

Part B of the questionnaire contained one item on learning resources, two items on student support (McInnis, Griffin, James & Coates (2001) and two new items concerned with physical space and computing resources. This part was entitled 'Physical Environment and Learning Resources'. Part C was based on an instrument that had been devised by Entwistle, Tait, and McCune (2000) to measure the students' preferences for different types of course and teaching but included three additional items concerned with preferences for different types of assessment. Part D consisted of seven new items intended to measure students' level of motivation. Part E was based on Entwistle, McCune, and Hounsell's (2003) Approaches to Learning and Studying Inventory (ALSI).

Procedure

The questionnaire consisted of five parts A-E. All the items in each part of the questionnaire were followed by five answer categories, from definitely agree to definitely disagree. The questionnaires were administered to the students during their classes. Attempts were made to contact absent students through the teachers or their classmates. If a student was not contactable then he was replaced with another student from the same class, gender and year of study.

Data analysis

Multivariate analysis of variance (MANOVA) was carried out to compare the students' score, at the two universities, with regard to the 13 factor-based scales, identified in factor analysis of the students' responses to the items in five parts of the questionnaire (reported; Ullah et al., 2011). The names of the universities were not identified with regard to the results because authorities at one university were not willing to disclose the names of the universities. They allowed the researcher to collect the information on the condition that the names of the universities will not be identified in the results. The MANOVA showed that there were statistically significant differences in the students' scores with regard to university $F(13,887)=9.372$, $p = 0.000$. Univariate tests revealed that the students of the two universities were significantly different in their scores on the instructional practices ($F = 16.417$; d.f. 1, 899; $p < 0.000$), appropriate workload ($F = 5.758$; d.f. = 1, 899; $p < 0.017$), generic skills ($F = 15.011$; d.f. = 1,899; $p < 0.000$), learning resources ($F = 54.778$; d.f. = 1,899; $p < 0.000$), engagement ($F = 16.897$; d.f. = 1, 899; $p = < 0.000$), reliability ($F 30.950$; d.f. = 1,899; $p < 0.000$), deep approach ($F = 52.913$; d.f. = 1, 899; $p = 0.000$ and monitoring studying ($F = 8.705$; d.f. = 1, 899; $p = < 0.003$). Since the sample size was large, small differences may appear statistically significant therefore eta squared was computed to see the effect size. According to the values of the eta square, there were small differences in the scores of the students at the two universities on the scales of instructional practices, appropriate workload, generic skills, engagement, reliability and monitoring studying and moderate differences on the scales of learning resources and deep approach. The table 1 below shows adjusted mean scores of the students of the two institutions on the 13 scales. Examination of the students' mean scores on the scales revealed that the students in the public sector university II achieved slightly higher mean scores than the students in the public sector I on instructional practices, generic skills, learning resources, engagement, reliability, deep approach, organized studying and monitoring studying. The students in the public sector university I achieved slightly

higher mean scores than the students in the public sector university II on the appropriate workload scale. However, the students of the two institutions obtained similar mean scores on appropriate assessment, supporting understanding, transmitting information and the surface learning strategy.

Table 1: *Mean Scores (and Standard Errors) by University*

Scale	Public sector University I		Public sector University II		Eta Squared
	Mean	Std. Error	Mean	Std. Error	
Instructional Practices	2.500	.045	2.772	.068	0.012**
Appropriate Workload	2.832	.048	2.661	.072	0.009*
Generic Skills	3.277	.038	3.495	.057	0.017***
Appropriate Assessment	2.695	.046	2.630	.070	0.000
Resources	2.739	.051	3.298	.077	0.052***
Support Understanding	4.010	.034	4.043	.052	0.000
Support Transmission	3.559	.046	3.543	.070	0.000
Engagement	2.733	.056	3.074	.084	0.013**
Reliability	3.700	.051	4.123	.077	0.033***
Deep Approach	2.980	.049	3.512	.074	0.043***
Organized Studying	3.349	.049	3.488	.075	0.005*
Surface Approach	3.014	.048	2.984	.072	0.001
Monitoring Studying	3.665	.045	3.862	.068	0.008**

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Discussion

The results of this study are consistent with the theory and the previous research. The same student may use different approaches to studying in different course units depending upon their perceptions of the demands of the courses. Similarly, different students may use different approaches in the same course unit depending upon their perceptions of the course (Richardson, 2009, p. 13). Hence, students' perceptions of the courses (educational context) mediate between the educational context and their learning strategies.

According to the results of this study, the students at the two universities differed with regard to the instructional practices, appropriate workload, generic skills, learning resources, engagement, reliability, deep approach and monitoring studying.

The students in the two higher educational institutions did not differ in their perceptions of the learning environment in terms of the appropriate assessment. They also did not differ in their learning preferences and the use of surface learning strategy.

The way students learn seems to depend on the context, content and perceived demands of the learning tasks (Richardson, 2000, p. 32). Teachers and students may perceive the same learning environment differently. Administrators and the teachers might have designed the learning environment to promote desirable approaches to study but the students may have different perceptions of it. Different students may also perceive the same learning environment differently (Richardson, 2003, P. 13). Additionally, a substantial body of research suggests that approaches to study are associated with perceptions of educational environment; positive perceptions are associated with the deep approaches and the negative perceptions are associated with the surface approaches (Eley, 1992; Kreber, (2003; Lawless and Richardson, 2002; Richardson, 2003; Richardson, 2005; Richardson, 2009; Richardson, Dawson, Sadlo, Jenkins, & Maccines, 2007; Richardson, Gamborg and Hammerberg, 2005; Richardson and Price, 2003; Sadlo and Richardson, 2003; Trigwell and Prosser, 1991; Ullah et al. 2011, 2013; Wilson, Lizzio & Ramsden, 1997).

Conclusion

The study explored the students' perceptions of the educational environment, their learning strategies, academic motivation and learning preferences at the two universities. The results of the study are consistent with the existing literature according to which students' perceptions of the learning environment and their approaches to learning vary across institutions and subjects. The students respond to the perceived requirement of the academic context. The students at the two universities differed in the perceptions of the educational environment, academic motivation and approaches to learning. However, they did not differ with regard to their learning preferences. On the whole, the students at both the universities evaluated their learning environment more favourably in terms of generic skills (that they acquired during the course of study) than in terms of instructional practices, assessment, workload and learning resources. They preferred the learning environment that supports understanding more than the learning environment that supports transmission of information. They tended to adopt all the approaches to learning: the deep approach, the strategic approach, the monitoring studying and the surface approach to learning. There are differences in the students' perceptions of the

learning environment, learning preferences, approaches to studying and academic motivation, despite the fact that the students were studying in four similar disciplines at the two public sector universities that had similar curricula. Therefore the results of this study can be generalized only to the two universities in Lahore.

On the basis of the results of the study, it is suggested that each educational institution needs to explore the perceptions of their learning environment and approaches to learning among its students to enhance the quality of education in Pakistan.

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