LEARNING ENVIRONMENT IN UNDERGRADUATE INSTITUTES IN PAKISTAN: DETERMINING FACTORS AND SUGGESTIONS

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ABSTRACT

Learning environment is the sum of the internal and external circumstances and influences surrounding and affecting a person's learning. It comprises of everything that is happening in an undergraduate institution. It dependent upon each and everything in an educational organization like curriculum design, teaching methods, teachers' behavior with students', the atmosphere during teaching sessions, the social and academic environment and support system during stress

This article attempts to discuss various aspects related to the learning environment including factors determining it, ways of evaluating it and suggestions for improving it in the context of Pakistan.

Key Words: Learning environment, Factors, Undergraduate.

Pakistan's strength lies, among many other things, in the diversity of its cultures, languages, beliefs, terrain and cuisine. Adding to this list is the assortment of environment in which many of the medical and dental colleges function. Ranging from the elite private institutions in its mega-cities to the public sector establishments in rural Sindh, Punjab and Khyber Pakhtoon Khwa to institutions in the rustic expanse of Balochistan, these medical and dental colleges provide a milieu extending from the fashionably innovative, to the politically volatile and to the traditionally entrenched. It is assumed that each kind of college would have a direct effect on the quality of learning and on the product, i.e. the graduates. It has been documented that "classroom environment is one of the most important predictors of student achievement"[1].

As in many other fields, published data is lacking within Pakistan as to what the learning environment is like in different medical and dental colleges and its impact on student motivation and achievement.

This article attempts to discuss various aspects related to the learning environment including factors determining it, ways of evaluating it and suggestions for improving it.

It is hoped that academicians from across Pakistan would embark upon studies to evaluate (and publish) the learning environment of their own institutions or compare that in two institutions set in different parts of the country. This should provide policy makers with not only base line data to make decisions on but also ideas for developing strategies for improvement.

DEFINITION

Learning environment is the sum of the internal and external circumstances and influences surrounding and affecting a person's learning[2]. It comprises of everything that is happening in an undergraduate institution[3].

Genn[3] in 2001 provides a definition for educational environment as the manifestation of a curriculum. Roth-

man and Ayoade in 1970 consider the learning environment as 'a manifestation of the effects on students of the various parts of the curriculum'. Maudsley in 2001 states that 'a learning environment exists wherever and whenever students gather . . . ' and it includes various factors, which contribute to an effective education and becomes the background in which the curriculum exists[4]. Learning environments are typically constructivist in nature, engaging learners in "sense-making" or reasoning about extensive resource sets.

DETERMINANTS

The learning environment is dependent upon each and everything in an educational organization like curriculum design, teaching methods, teachers' behavior with students', the atmosphere during teaching sessions, the social and academic environment, support system during stress, commitment of the institute with students, student motivation and accommodation for students, to name just a few[4].

a) Curriculum

Students from schools using traditional teaching practices are more likely to adopt surface approaches to a greater degree than students from programmes that are more student-centered[5]. Student centered curricula generates a more stimulating and challenging educational environment. Importantly, the beneficial effects from the generic attributes acquired through such teaching practices (e.g. case-based learning and PBL) should not be underestimated[6]. Clearly documented learning outcomes communicated to the learners and the faculty well in time are also an important determinant.

b) Faculty

Faculty should be oriented towards facilitation of learning rather than direct delivery of material only. The teacher's actions, attitudes (as evidenced by tone of voice, comments made), enthusiasm, and interest in the subject will affect learners and the learning environment[7]. A teacher creates the proper learning environment and keeps the process on track[8]. How he/ she is teaching and what he is teaching will have an immediate influence on whether students have a positive or negative experience of learning[9]. Teachers with "constructivist" beliefs about teaching are more likely to report good classroom disciplinary climate; this has been found in more than one country[10].

c) Teaching Methods

Different teaching methods like lectures, small group discussion produce different educational environment. It is postulated that small group teaching has a much

more beneficial learning environment. On the other hand, some studies from developing countries, with traditional mode of teaching (e.g. lectures) rated the learning environment as better than small group teaching[11]. The results of one study revealed that the instructional methods used in the new Biology curriculum were more effective in increasing the students' environmental awareness than compared to traditional instructional methods[12]. Structured teaching practices and student-oriented teaching practices are both associated with good learning environment[10].

d) Student involvement

One crucial determinant is the engagement of the students during learning. This is affected by their motivation and perception of relevance[7]. The perception of environment depends upon at-risk (delinquent and non-attendees) and regular students, gifted and non-gifted students, cultural differences among students and on the gender of the students[8]. Females typically have more favorable views of their classroom learning environment than their male counterparts[13].

e) Logistics

Room temperature, comfort of seating, size of room, long sessions without refreshments, background noise, and visual distractions are all factors of the environment that can affect learning[7]. Physical factors can make it difficult or help promote learning for learners and teachers by allowing them to feel uneasy or relax and pay attention.

f) Student Support & Safety

A good learning environment is one in which learners feel safe to experiment, voice their concerns, identify their lack of knowledge and stretch their limits without fearing reprimand. Safety can be compromised, for example, through humiliation, harassment, and threat of forced disclosure of personal details[7].

g) Feedback

Feedback on performance, a vital part of teaching, should be done constructively and with respect for the learner[7]. Feedback from the student is another important factor. Adult learners are motivated through inclusion and consultation. Their input to a course's objectives and structure should be sought, valued, and acted on wherever possible[7].

Learning material, social life, sense of belonging, accommodation, food, personal safety, transport facility, library, leisure facilities, clinical experiences, access to computers and study skills are other important factors which will affect learning and the perception of the en-

vironment. Variables will take on different grades of importance within different educational institutions[9].

EVALUATING THE 'LEARNING ENVIRONMENT'

A remarkable feature of learning environment is the availability of a variety of economical, valid and widely-applicable questionnaires that have been developed. A review of BEME published in 2010[3] identified thirty one instruments in 79 published studies selected. Out of them the most reliable and preferred[9] in medical and dental college identified in the literature are:

a)   Undergraduate Medical College

The DREEM (Dundee Ready Education Environment Measure) is a validated inventory which has demonstrated the robustness in terms of its psychometric qualities[13,14]. Its content validity has been established. It has been found to have high internal consistency[3]. There are some studies using this inventory from Pakistan[15].

b)   Dental College

Dental Student Learning Environment Survey (DSLES)[16] is likely to be the most suitable instrument for measuring educational environment in dental educational setting. It has demonstrated good reliability and content validity[3].

c)   Qualitative Studies

Questionnaires or inventories cannot tell the whole story. While they may be valuable in pinpointing areas of concern shared by a majority of students, they give no insight into the underlying reasons for these responses[17]. Qualitative studies can be done alone[9] or complemented with the quantitative studies like with DREEM inventory[17].

SUGGESTIONS FOR IMPROVING THE LEARNING ENVIRONMENT

a)   Planning and commitment

The top administration needs to understand, agree upon and be sincerely committed to the process of educational development. This does not necessarily warrant shifting from a traditional to a completely innovative curricular design (for example from a discipline-based to an entirely integrated format). Improvement may be introduced within any system without changing the underlying existing educational philosophy and practices.

The administration needs to have a clear, feasible vision of where it sees its institution in the future and what strategies it can adopt to reach there. Finances and ded-

ication will definitely be involved and each institution has to be ready to make its long term investments.

b)   Faculty Development

An institution is as good as its faculty, not the buildings. The topmost priority for any institution should be faculty orientation followed by faculty development.

The faculty needs to know about the range of educational processes available (including teaching methods, assessment tools, feedback etc). Without proper orientation and training of faculty, any new modality cannot have any positive impact on the educational environment. This training cannot be on an adhoc basis. It has to be done under a clear vision and strategic plan. Embarking upon a faculty development process without a clear plan is like constructing a building without knowing what function it is to serve!

c)   Faculty involvement

It is essential that the faculty, after attending training sessions, be involved in the development of the educational process within the institution. They need to take ownership of the dynamism and need to see clearly how it would benefit, not just the educational outcome and the institution but also (equally importantly), themselves.

d)   Faculty benefit

Faculty motivation would be extrinsic (for money or political gain) or intrinsic (for inner satisfaction, personal growth) or both. The administration needs to make honest and clear commitment to the faculty as to what it would gain by embarking upon the process of (environment) 'improvement'. Without weaving faculty benefit within the development process, the administration will not be able to sustain faculty motivation and the development process would fizzle out.

e)   Student Support

Students having problems impacting their achievement should be able to consult some qualified person/s who would be able to address their issues properly and with confidentiality. Many institutions have a mentoring system to address this issue. There should be a procedure to lodge any complain anonymously as well.

f)   Logistics

If and when an institute plans to incorporate innovative, student-centered methodologies, it is imperative for it to plan for allocation of physical space and human resources for such activities. It is not necessary for new rooms and buildings to be constructed for small group discussions (as an example) to take place. Existing space,

like laboratories, offices, wards etc. may be used. Once trained, faculty from many departments may be used to conduct and facilitate student centered activities.

g) Assessment

Assessment needs to be not just for assessing learning but also for supporting and improving learning[18]. Formative assessment, coupled with feedback, will go a long way in improving learning and the perception of the learning environment.

h) Feedback

Many institutions do not have a system in place for proper formal feedback to students about their performance. Faculty members should be trained to provide constructive feedback to augment learning[19].

It is also necessary to get feedback from the students, on a regular basis, on how they are experiencing their learning environment. This will help to identify areas of improvement and sustainability of any changes that is being practiced. This feedback should also be communicated to the students as well.

i) Library

The Higher Education Commission offers library services to many public universities. A number of private universities have the resources to garner adequate finances to fund libraries. Used discreetly and judiciously, funds can be made available to purchase books and journals. A number of free on-line educational resources may be used and disseminated among the faculty and the learners.

CONCLUSION

Educational decision making, like most decisions, needs to be evidence based. There exists scarce, but growing, data from institutions across Pakistan about issues like learning environment. It is hoped that medical and dental colleges would pay due attention to this aspect and disseminate information gathered in order to improve learning and the environment in which learning flourishes.

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CONTRIBUTORS

MJ conceived the idea, did data search, drafted first draft and approved final version to publish. SMA did literature search, revised the paper for important intellectual contents and approved final version to publish.