

LEARNING ENVIRONMENT OF ADOLESCENTS STUDENTS IN RELATION TO THEIR ACADEMIC ACHIEVEMENT

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Abstract

The study aimed to identify the learning environment of adolescents' students in relation To their academic achievement. The learning Environment significantly impact of the Students Engagement motivation and Academic Performance. Classroom setup, teacher-Student relationship, resources and technology integration as well as peer group interaction all of us contribute to shaping a conducive learning atmosphere. To collect the data collect Survey method is adopted for the adolescent students in the schools. Method of random sampling using is applied in the present study. Both male (165) and female (297), together 462 data was collected from the adolescent school students. Further data is collected from government and private school students also. The dimensions of learning Environment overall-male students have it better than their female counterparts. Between male and female students, there is a statistically significant difference overall learning environment correlate significantly with academic achievement positively. At 0.01 level.

Keywords: *Learning Environment, Centered on the Learner, Knowledge-Centered, Academic Performance.*

Introduction

Almost every kind of education, at every level, is an essential instrument for solving the world's issues. Education is a process of learning that is carried out in establishments like schools. Therefore, the most important investment a developing nation like India can make is in its people's education, giving them the knowledge, skills, and mindset needed to improve society. Therefore, it is vital that educational institutions at all levels take into account the necessity of incorporating appropriate learning environments into their curricula, aspects that would promote knowledge, moral conduct, reasoning, and practical life skills.

Learning Environment

Over the past century, there have been significant changes to the learning objectives for schools. Compared to a century before, today's students have far higher expectations for their education. A cornerstone of contemporary learning theory is the idea that various learning objectives necessitate various methods of instruction; new educational objectives necessitate adjustments to learning opportunities. The shifting objectives prompt an examination of learning environment design from five angles, namely the degree to which learning environments are learner-centered, assessment-centered, knowledge-centered, physical structure centered, and community centered. These angles seem especially significant in light of recent findings regarding human learning.

Physical Structure Centered: Although learning environments are more than just these physical components, there is a tendency to focus on either the technologies used to create online personal learning environments (PLEs) or the physical institutional learning environments (such as classrooms, lecture halls, and labs). They will additionally consist of:

- The attributes of the students;
- The objectives for instruction and learning;
- The exercises that will facilitate learning the most;
- The assessment strategies that are most effective in measuring and promoting learning
- The culture that permeates the educational setting.

Learner-centered learning: The teacher should create strategies to identify each learner's knowledge, abilities, interests, attitudes, and beliefs. A conceptual grasp, or misunderstanding, of a subject is founded on what students bring with them, including their social and cultural traditions and experiences. Learner-centered teachers are aware of this. Learner-centered teachers constantly monitor both ends of the bridge if teaching is understood as building a bridge between the student and the subject matter. The endeavors of educators to get an awareness of each student's knowledge, interests, abilities, and goals can provide a basis for constructing connections to novel insights (National Research Council, 2000).

Knowledge Centered: Knowledge-centered learning settings place a high value on assisting students in becoming knowledgeable through understanding and later transfer. The most recent research on learning, transfer, and development offers crucial pointers for accomplishing these objectives of academic success. Standards in subjects like science and math assist in defining the skills and information that students must learn.

Assessment Centered: Test scores and essay grades are summative evaluations that students receive at the conclusion of projects; formative assessments are also necessary because they give students the chance to make revisions and so enhance the caliber of their learning and thinking.

Community Centered: Community-centered refers to multiple dimensions of community, such as the classroom as a community, the school as a community, and the extent to which educators, administrators, and students experience a sense of belonging to the broader community that consists of residences, places of business, states, the country, and even the world.

Purpose of the Study

Today's learner-centered students must be aware of where their knowledge stands right now, be able to expand on it, make decisions based on that knowledge, and solve complex learning problems that will help them do better academically. Knowledge-centered environments prioritize the materials and exercises that support students in deepening their

comprehension of various subject areas. Examining current curricula critically is necessary given this focus. Current science curricula have a tendency to place too much emphasis on facts and not enough emphasis on "doing science" to explore and test big ideas. It is possible to organize activities so that learners can investigate, clarify, expand upon, and assess their own development. When ideas are presented to students with a purpose or a need, it is easier for them to understand how to apply the knowledge they are learning. A knowledge-centered approach to learning environments emphasizes the significance of considering curriculum designs.

There are various facets of community, such as the school community, the classroom community, and the ties that bind the school to the broader community, which includes the home. Classroom norms can also promote participation strategies that some students may not be familiar with. Some groups, for instance, learn best by listening and observation before participating in ongoing activities; children whose community has only recently included schools may not be familiar with school-like forms of communication. Grading procedures also have an impact on the feeling of community in the classroom, and depending on the students, these procedures may have positive or negative results. Students' academic performance can be significantly impacted by activities that take place in their homes, community centers, and after-school clubs. The learning objectives that specify different environments must be reflected in assessments. It is insufficient to provide assessments that are primarily focused on formula and fact memory if the aim is to improve understanding.

Students can learn in a range of settings and ways with these five unique learning environment-centered approaches. Since learning is a task that students must accomplish, creating a learning environment that optimizes their learning potential is the aim. Of course, there isn't just one perfect environment for learning. The countless opportunities provided by learning environments add intrigue to the teaching and learning process. Therefore, in order to fully comprehend the part that the learning environment plays in teenage students' academic achievement, it is imperative that this study be carried out immediately.

Methodology

For the teenage students in the schools, the survey method is used. In this study, the random sampling technique is used. A total of 462 pieces of data-165 male and 297 female-were gathered from the adolescents enrolled in school. Students at public and private schools also provide additional data.

Research Questions

1. Do male and female teenage students differ significantly in terms of the aspects of the learning environment and academic performance?
2. In terms of the aspects of learning environment and academic achievement, are there

notable differences between adolescent students attending government and private schools?

3. Does academic achievement and the elements of the learning environment have a meaningful relationship?

Answer to the Research Questions

1. Do male and female teenage students differ significantly in terms of the aspects of the learning environment and academic performance?

Table 1 Significance of Mean difference between Male and Female in all the Selected Variables

| Variables | Gender | | | | 't' value | Level of Significance |
|------------------------------|--------------|--------|----------------|--------|-----------|-----------------------|
| | Male (N=165) | | Female (N=297) | | | |
| | Mean | S.D | Mean | S.D | | |
| Physical Structure centered | 46.54 | 6.405 | 42.34 | 6.981 | 6.542 | P<0.001 S |
| Learner centered | 41.81 | 8.467 | 36.88 | 7.854 | 6.281 | P<0.001 S |
| Knowledge centered | 28.55 | 5.448 | 27.19 | 5.214 | 2.631 | P<0.001 S |
| Assessment centered | 31.25 | 6.004 | 27.99 | 5.993 | 5.591 | P<0.001 S |
| Community centered | 14.04 | 3.483 | 13.02 | 3.647 | 2.954 | P<0.001 S |
| Overall Learning Environment | 162.18 | 21.254 | 147.42 | 21.445 | 7.128 | P<0.001 S |
| Academic Achievement | 58.47 | 13.724 | 59.47 | 8.451 | 0.976 | P>0.05 NS |

According to the above table, male students perform better than female students when it comes to the physical layout of the learning environment, learner-centeredness, assessment-centeredness, community-centeredness, and overall quality of the learning environment. The general learning environment and its dimensions are different for male and female students, and this difference is significant at the 0.01 level. In addition, the notion that male and female pupils achieve academic parity is internalized.

2. Does the quality of the learning environment and academic achievement differ significantly between adolescent students in government and private schools?

Table 2 Significance of Mean difference between Government and Private schools in all the Selected Variables

| Variables | Type of School | | | | 't' value | Level of Significance |
|------------------------------|--------------------|--------|-----------------|--------|-----------|-----------------------|
| | Government (N=189) | | Private (N=273) | | | |
| | Mean | S.D | Mean | S.D | | |
| Physical Structure centered | 45.01 | 6.674 | 43.03 | 7.240 | 3.020 | P<0.001 S |
| Learner centered | 40.23 | 8.839 | 37.55 | 7.947 | 3.397 | P<0.001 S |
| Knowledge centered | 28.23 | 5.533 | 27.27 | 5.154 | 1.910 | P>0.05 NS |
| Assessment centered | 30.49 | 6.517 | 28.24 | 5.802 | 3.895 | P<0.001 S |
| Community centered | 13.80 | 3.897 | 13.10 | 3.398 | 2.069 | P<0.005 S |
| Overall Learning Environment | 157.77 | 24.009 | 149.19 | 20.770 | 4.087 | P<0.001 S |
| Academic Achievement | 55.74 | 11.664 | 61.49 | 9.152 | 5.925 | P<0.001 S |

The above table suggests that students in government schools have a better overall learning environment and achieve academically than students in private schools in terms of physical structure, learner-centered learning, assessment-centered learning, and community-centered learning. Students in government schools and those in private schools experience different learning environments overall, and this difference is significant at the 0.01 level. Furthermore, it is concluded that the community-centered learning environment component by itself is significant at the 0.05 level. It is also understood that male and female pupils are equal in terms of their knowledge base.

- Does academic achievement and the elements of the learning environment have a meaningful relationship?

Table 3 Correlation Matrix showing Inter Correlation among the Dimensions and overall Learning Environment and Academic Achievement of the Students

| Variables | Physical Structure centered | Learner centered | Knowledge centered | Assessment centered | Community Centered | Learning Environment | Academic Achievement |
|------------------------------|-----------------------------|------------------|--------------------|---------------------|--------------------|----------------------|----------------------|
| Physical Structure centered | 1.000 | 0.538** | 0.303** | 0.424** | 0.313** | 0.754** | 0.514** |
| Learner centered | - | 1.000 | 0.291** | 0.582** | 0.406** | 0.837** | 0.585** |
| Knowledge centered | - | - | 1.000 | 0.363** | 0.271** | 0.585** | 0.303** |
| Assessment centered | - | - | - | 1.000 | 0.445** | 0.784** | 0.582** |
| Community Centered | - | - | - | - | 1.000 | 0.597** | 0.445** |
| Overall Learning Environment | - | - | - | - | - | 1.000 | 0.329** |
| Academic Achievement | - | - | - | - | - | - | 1.000 |

The dimensions of the learning environment in the student study exhibit a strong correlation with each other as well as with the dependent variable, academic achievement. Academic achievement is positively correlated with the independent variable learning environment and its dimensions, which include physical structured centered, learner centered, knowledge centered, assessment centered, community centered, and overall learning environment. at a level of 0.01.

Findings

The study's findings demonstrate that, when it comes to all five learner-centered, assessment-centered, knowledge-centered, physically structured, and overall learning environments, male teenage students have the best ones. Additionally, teenage students benefit from an enhanced learning environment as a result of government schools now having well-equipped teaching and learning resources, which improves their academic performance overall. Furthermore, a strong positive correlation is found between the components of the learning environment and academic achievement. This illustrates that learning can happen anywhere, at any time, and even outside of the classroom if there is a great learning environment.

Conclusion

Over the past century, there have been significant changes in the expectations and goals for education. New objectives call for reconsidering issues like what should be taught, how it should be taught, and how students should be evaluated. The current study stressed the need of using learning research as a guide when creating productive learning environments. A focus on the extent to which environments are learner-centered aligns with the substantial body of research indicating that learners build new knowledge from what they already know and believe, and that their existing knowledge influences how they interpret new information. Effective teaching starts with what students bring to the classroom, which includes both academic content knowledge and cultural practices and beliefs. Sometimes students' prior knowledge helps new learning, and other times it hinders it.

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