



## Impact of Physical Classrooms Environment and Teaching Methods on Learning Experiences of University Students

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### ARTICLE INFO

#### Article History:

Received: December 08, 2023

Revised: March 17, 2024

Accepted: March 18, 2024

Available Online: March 19, 2024

#### Keywords:

Physical Classroom Environment

Teaching Methods

Learning Experiences

#### Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

### ABSTRACT

The objectives of the study were to find out students' learning experiences regarding the physical environment of classroom at university level and to determine students' learning experiences about different teaching methods used in classroom at university level. This study was descriptive and quantitative in nature in which a questionnaire was developed. The population of the study was consisted of three public and private universities of Bahawalpur and Multan. The total sample was 600 students (300 males and 300 females). The sample were selected by using convenient sampling techniques. A questionnaire was self-developed and used as a tool for data collection, and every question was answered in the form of multiple responses. Most of the respondent agreed that the proper sitting space is most suitable for their work in their classroom, and most agreed that the lecture method is most effective method in their learning. It was suggested that the learning of students could be enhanced by providing a better physical classroom environment and using innovative and modified teaching methods in classroom during teaching learning process.

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## 1. Introduction

A learning experience is defined as any organised effort, course, programme, or new skill in which mastery occurs. This includes situations where learning occurs in formal settings (such as study halls or schools) or in informal settings (such as outside of formal learning environments). It also includes traditional learning environments where students learn from teachers or non-traditional learning environments where students learn from online resources. Teachers should engaged the students gradual practice, the students should contribute significantly to the group's learning and students by exchanging their ideas and interacting with one another (Armellini, Teixeira Antunes, & Howe, 2021). Every institution made an effort to determine whether the academic environment had an impact on the type of learning experiences and outcomes that students achieved. Students that are satisfied with the educational and learning environment are more engaging and helpful in demonstrating the environment (Awidi & Paynter, 2019). It has been observed that students learning experiences are greatly impacted by both situational and individual aspects. Individual variables, however, take into account prior knowledge from the students regarding (Moqaddam, 2016). It was believed that exceptional educational experiences should inspire our students to become lifelong learners and to pursue further education beyond the scope of the course we are offering.

It has been noted that a teacher-student relationship is the fundamental point of view in a safe and supportive learning environment. Students feel comfortable making requests, turning in errors, and facing challenges in order to learn some new, useful information when they feel that their teacher often thinks about them and needs them to do well (Shi, 2019). Students may enhance their learning experiences through extra-curricular activities. Student's

acceptance of learning environments can significantly encourage them to become involved in learning process. According to here are various forms of learning based on the different learning styles exist based on the type of task and the ability of the learner?

## **2. Review of Related Literature**

Students learning experiences have a significant impact on the teaching and learning environment. The goal of the entire educational system is to support students' intellectual, social, and economic growth. Every institution made a significant effort to determine how the academic environment affected students' learning experiences and the caliber of their final products. Students are more engaged and productive in the teaching and learning environment when they are happy with it. It has been noted that a student's learning experiences are greatly influenced by both situational and personal factors (Awidi & Paynter, 2019). Different counsellors and educators have presented the idea and the best approach to learning in their own unique ways. Some characterise learning as a change in execution, some as a communication, and still others as the acquisition and maintenance of data. Gestalt theory states that the goal of learning is to acquire information after observing the entire scheme. Learning is reacting to the whole circumstance (Huang, 2019). Audio-visual aids are a mixture of sound and videos used by teachers to enhance learning. Most teachers used whiteboards, charts, and models for enhancing their students learning, but some teachers also used multi-media, projectors, images, sound clips, and animations to enhance students learning experiences.

### **2.1. Experiential learning theory**

Learning by doing or gain by experiences. Is the foundation of the experiential learning theory. Experiential learning is centered around the idea that learning new things is best accomplished through hands-on experiences. These memories stick with you and help you remember things and retain information (Awidi & Paynter, 2019).

### **2.2. Kolb Learning Styles and Experiential Learning Theory**

The experiential writings of Dewey, Lewin, and Piaget serve as the foundation for experiential learning theory, or ELT. Experience is essential to ELT's methodology, in contrast to behavioral and cognitive learning theories, which place more emphasis on cognition than affect and reject the roles of consciousness and subjective experience in the learning process, respectively (Cayubit, 2022). The term physical classroom environment refers to the overall layout and design of the respective classroom. Teachers should design the environment by furnishing lighting in the classroom, moderate temperature, proper ventilation and organized sitting-spaces amongst the chairs and learning materials like (white board, multi-media etc) to maximize the learning opportunities and the involvement of every student in the classroom. The term teaching methods refers to the pedagogy, management strategies and general contents in the classroom. The best teaching strategy always allow the students to convey information clearly and concisely, and to make learning more comprehensive and durable. The main objectives of teaching at any level of education is to bring revolutionary changes in teaching learning process new methods should be adopted that have impact on students learning (Cayubit, 2022). Teachers should always use suitable teaching methods that are innovative, specific and appropriate at university level. Many teachers mostly used lecture methods, demonstration methods, Activity method, cooperative learning and discussion methods at university level (Awidi & Paynter, 2019). Research gap, the identified research gap in this study lies in the need for a more comprehensive understanding of the multifaceted factors influencing student learning experiences at the higher education level, particularly within the context of diverse institutional settings. While the research objectives address several crucial aspects such as physical classroom factors, teaching methods, peer interactions, and institutional differences, there remains a lack of detailed exploration into specific distinctions and interactions among these factors. It was a quantitative study; positivism is often associated with the quantitative research approach, in which the purpose is to predict, control, and generalize the findings through the survey method.

### **2.3. Objectives of the study**

The objectives of the current study was

1. To find out the impact of physical classroom environment on learning experiences at university level.
2. To determine the students learning experiences of different teaching methods used in classroom during teaching learning process at university level.

Research Questions are as follows,

1. What is the impact of physical classroom environment on students learning experiences at university level?
2. What are the students learning experiences of different teaching methods used by the teachers during teaching learning processes?

### 3. Research Methodology

Research Methodology preferred as the method and procedure used to gather data about facts and figures established to required results. In other words, Research methodology is a whole mechanism that is acquire for conducting the research study in an expected way. Therefore it deals with the selection of the most suitable Process, its organization and precision of results. The methodology was followed descriptive and Quantitative techniques research plan. Convenient sampling technique was used in the whole process. Explanatory design was used. Population of the study was comprised of all students (male and female) in Bahawalpur and Multan public and private universities. The sample of the present study was delimited to three Multan and three Bahawalpur public and private universities. The sample size were 600 (male/female) students that were 100 students from each university are randomly selected. Details of the population are given in the table below.

**Table 1: Details of the Population**

Sr.No	Public and Private Universities of Bahawalpur and Multan	Social Sciences Students	Natural Sciences Students	Total No. of Students
1.	The Islamia University of Bahawalpur (IUB)	50	50	100
2.	The Govt. Sadiq College Women University B.W.P (GSCWU). National College of Business	50	50	100
3.	Administration & Economics BWP (NCBA&E).	50	50	100
4.	Bahauddin Zakariya University Multan (BZU)	50	50	100
5.	Institute of Southern Punjab Multan (ISP)	50	50	100
6.	National College of Business Administration & Economics Multan (NCBA&E).	50	50	100
Total Sample of Students		300	300	600

*Detail of Universities from where sample was selected.*

Table 1 shows that data provided lists the number of students in selected public and private universities in Bahawalpur and Multan, with each university having 100 (50, Social Science + 50 Natural Science) students. The total number of students selected from these Universities are 600. The Islamia University of Bahawalpur, The Govt. Sadiq College Women University B.W.P, and National College of Business Administration in Bahawalpur each have 100 students (male and females combined). In Multan, Bahauddin Zakariya University, Institute of Southern Punjab, and National College of Business Administration & Economics each have 100 students (male and females combined). Total no of students are 600.

### 4. Data Analysis

After collecting data, a data sheet was first prepared according to the requirements of the questionnaire variables. Then data was entered in that sheet and analyzed through the Statistical Packages for Social Sciences (SPSS-21). The steps of the procedure of data analysis consisted of:

Select analyzed → select multiple responses → select define variable sets → prepare a variable set of each question → again select analyzed → select multiple response → select

crosstabs→ shift gender variable in row box→ shift one by one each set in column box then select ok.

After that results are displayed as a table of every question. A detailed description of the results of each table is given below of respective table. Findings, conclusions and recommendations were drawn based on data analysis.

Q1: Which of the following are suitable for proper sitting and working in classroom?

- a) Sitting space
- b) Lighting
- c) Ventilation
- d) Temperature (during winter and summer)

**Table 2: Gender- wise detail of responses about suitable for proper sitting and working in classroom (Multiple Responses)**

Gender	Q1a (sitting Space)	Q1b (Light)	Q1c (Ventilation)	Q1d (Temperature)	Total Students
	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	
	%	%	%	%	
Male	146 21.4%	59 8.7%	43 6.3%	93 13.6%	300 50%
Female	150 22.0%	66 9.7%	49 7.2%	76 11.1%	300 50%
Total	296 43.4%	125 18.3%	92 13.5%	169 24.8%	600 100%

Percentage and frequency are based on respondents. Dichotomy group tabulation at value 1. In Table 2 data presents perception of the way about "Which of the following are suitable for proper sitting and working in your classroom?" presented. It is evident from above table that Majority of the respondent male 146(21.4%) and female 150(22%) and their total 296(43.4%) feels like that proper sitting space is suitable for their working in their classroom, On the other hand male 93(13.6%) and female 76(11.1%) respondents and their total 169(24.8%) said that they have proper Temperature in their classroom. At the same time male 59(8.7%) and female 66(9.7%) respondents and their total 125(18.3%) agreed that they have proper light in their classroom, Similarly 43(6.3%) male and female 49(7.2%) respondents and their total 92(13.5%) said that they have proper ventilation in classroom. Overall, Majority of the respondent male 146(21.4%) and females 150 (22%) and their total 296(43.4%) feels that they have proper classroom sitting space for their workplace.

Q2: Which of the following Av-Aids help you in the comprehension of different subjects?

- a) White board
- b) Charts
- c) Models
- d) Projector
- e) Multi-media

**Table 3: Gender-wise detail of responses about learning Aids that helps you in the comprehension of different subjects (Multiple Responses)**

Gender	2a(white board)	2b. (charts)	2c ( models)	2d (projector)	2e. (multimedia)	Total Students
	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	<i>f</i>	
	%	%	%	%	%	
Male	119 14.6%	40 4.7%	42 5.1%	65 8.0%	144 17.6%	300 50%
Female	135 16.5%	29 3.5%	30 3.7%	71 8.7%	142 17.4%	300 50%
Total	254 31.1%	69 8.2%	72 8.8%	136 16.6%	286 35.0%	600 100%

Percentage and frequency are based on respondents. Dichotomy group tabulation at value 1. In Table 3 data illustrates about "Which of the following AV/Aid help you in the comprehension of different subjects?" presented .It is evident from above table that Majority of the respondent male 144(17.6%) and female 142(17.4%) and their total 286(35.0%) feels that Multi-media helps them in comprehension of different subjects, Same like this male 119(14.6%) and female 135(16.5%) respondents and their total 254(31.1%) said that use of white board by the teacher increased their comprehension of different subjects. Similarly, the respondents male 65(8%) and female 71(8.7%) and their total 136(16.6%) said that projector also increased their comprehension level, While male 42(5.1%) and female 30(3.7%) and their total 72(8.8%) agreed that use of models help them in comprehension of different concepts , same like that male 40(4.7%) and female 29(3.5%) and their total 69(8.2%) feels that charts used by the teachers increased their comprehension level. Overall, Majority of the respondent male 144(17.6%) and female 142(17.4%) and their total 286(35%) agreed that use of Multi-media by the teacher helps them in comprehension of different subjects.

Q3: What do you feel about the use of Av-Aids in classroom?

- a) Always increases my comprehension level
- b) Mostly increases my comprehension level
- c) Sometime increases my comprehension level
- d) Rarely increases my comprehension level
- e) Never increases my comprehension level

**Table 4: Gender-wise detail of responses about What do you feel about use of AV/Aids in classroom. (Multiple Responses)**

Gender	3a (Always increase)	3b. (Mostly increase)	3c (Sometimes increase)	3d (rarely increase)	3e. (Never increase)	Total Students
	f %	f %	f %	f %	f %	
Male	108 20%	112 21%	29 5.2%	8 1.5%	12 2.3%	300 50%
Female	119 22.6%	88 16.7%	26 4.9%	12 2.3%	18 3.5%	300 50%
Total	227 42.6%	200 37.7%	55 10.1%	20 3.8%	30 5.8%	600 100%

Percentage and frequency are based on respondents. Dichotomy group tabulation at value 1. In Table 3 demonstrates the study viewpoints about "Which of the following AV/Aid help you in the comprehension of different subjects?" presented .It is evident from above table that Majority of the respondent male 108(20%) and female 119(22.6%) and their total 227(42.6%) feels like use of AV/Aids Always increased their comprehension level . Same like that male 112(21%) and female 88(16.7%) respondents and their total 200(37.7%) feels that use of AV/Aids mostly increased their comprehension level. As the respondents male 29(5.5%) and female 26(4.9%) and their total 55(10.4%) said that use of AV/Aids some time increased their comprehension level. On the other hand, male 8(1.5%) and 12(2.3%) females and their totals 20(3.8%) said that use of AV/Aids by the teacher rarely increased their comprehension level. Like that male 12(2.3%) and 18(3.4%) females and their totals 30(5.7%) said that use of AV/Aids never increased their comprehension level. Overall Majority of the respondent male 108(20.8%) and female 119(22.6%) and their total 227(42.6%) feels like use of AV/Aids Always increased their comprehension level.

Q4: Which of the following teaching methods does your teacher used during teaching learning process?

- a) Lecture method
- b) Demonstration method
- c) Activity Method
- d) Project method
- e) Drill method
- f) Cooperative Learning

g) Discussion

**Table 5: Gender-wise detail of responses about teaching methods used during teaching learning process**

Gender	3a. Lecture Method		3b. demonstration Method		3c. Activity Method		3d. Project Method		3e. Drill Method		3f. Cooperative learning		3g. Discussion method		Total Students
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	
Male	156	20.2%	9	1.2%	21	2.7%	21	2.7%	5	0.6%	62	8%	118	21.7%	300
Female	157	20.3%	10	1.3%	30	3.9%	19	4.3%	10	2.3%	48	6.2%	105	13.6%	300
Total	313	40.5%	19	2.5%	51	6.6%	41	5.3%	15	1.9%	110	14.2%	223	28.9%	600

Percentages and totals are based on respondents. Dichotomy group tabulation at value 1. In Table 5 data presents perception about the way of "Which of the following teaching methods does your teacher used during teaching learning process? presented .It is evident from above table that Majority 313(40.5%) among which 156(20.2%) are males while157 (20.3%) are females respondent considered that lecture method is used by the teacher during their teaching learning process , Similarly 118(21.7%) male respondents and 105(13.6%)female respondent said that discussion method is used during their teaching learning process in the class, Alike 62(8%)male and 48(6.2%)females and their total 110(14.2%) feels that Cooperative learning is used by the teacher during teaching learning process, while 21(2.7%) male respondents and 30(3.9%)female and their total 51(6.6%)said that activity method was used during their teaching learning by the teacher in class. while ,21(2.5%) male respondents and 19(4.3%)female and their total 41(5.3%)said that project method is used during their teaching learning in the classroom. Same like this in male respondents9 (2.1%) and female10(2.3%)and their total19(4.3%) said that demonstration method used is used during their learning in the classroom while, 5(1.1%) male respondents and 10(2.3%)females said that drill method is used during their teaching learning process. Overall, Majority 313(40.5%) among which 156(20.2%) are males while157 (20.3%) are females respondent considered that lecture method is used during their teaching learning process by the teacher in the class.

Q 5: According to your experience, which teaching method is most effective in your teaching learning process?

- a) Lecture
- b) Demonstration
- c) Activity Method
- d) Project method
- e) Drill method
- f) Cooperative Learning
- g) Discussion

**Table 6: Gender-wise detail of responses about which teaching methods is most effective in your teaching learning process**

Gender	3a. Lecture Method		3b. demonstration Method		3c. Activity Method		3d. Project Method		3e. Drill Method		3f. Cooperative learning		3g. Discussion method		Total Students
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	
Male	75	10.6%	18	2.5%	46	6.5%	22	3.1%	4	0.6%	64	9.0%	131	18.5%	300
Female	82	11.6%	13	1.8%	52	7.3%	23	3.2%	7	1.2%	69	11.7%	102	14.4%	300
Total	157	22.2%	31	4.4%	98	13.8%	45	6.4%	11	1.6%	133	18.8%	223	32.9%	600

Percentages and totals are based on respondents. Dichotomy group tabulation at value 1. In Table 6, data about "According to your experience, which method is most effective in your teaching and learning process? It is evident from the above table that the majority of the respondents, 233 (32.9%), among which 131 (18.5%) are males and 102 (14.4%) are females, agreed that the discussion method is most effective in their teaching and learning

process. The same is true for 75 (10.6%) males and 82 (11.6%) females, and their total of 157 (22.2%) said that the lecture method is more effective during the teaching learning process. While 64 (9.0%) males and 69 (11.7%) females and their total of 131 (22.2%) agreed that cooperative learning is more effective during teaching and learning out of Males 130(22.0%) male respondents consider that discussion method is most effective in teaching learning process, while 73(12.4%) male respondents said that lecture method is most effective in teaching learning process, while 62(10.5%) male respondents said that cooperative learning is most effective in teaching learning process, while 22(3.7%) male and 23(3.9%) female respondents said that project method is most effective in teaching learning process, and 17(2.9%) male respondents said that demonstration method is most effective in teaching learning process, while 4(0.7%) male respondents said that drill method is most effective in teaching learning process. Overall, the majority of the respondents, 233 (32.9%) among which 130 (22%) are males and 103 (17.5%) are females, agreed that the discussion method is most effective in their teaching and learning process.

## **5. Findings**

1. It is proved that 296 (43.4%) males and females agreed that proper sitting space is most suitable for their working in their classroom. At the same time, 190 (33%) males and females said that they had a proper temperature in their classroom. At the same time, 116 (20.1%) agreed that they have proper light in their classroom, while 117 (20.3%) said that they have proper ventilation in the classroom.
2. It is proved that 286 (35.0%) males and females agreed that multimedia helps them in their comprehension of different subjects, just as 254 (42.6%) males and females said that the use of a whiteboard by the teacher increased their comprehension of different subjects. Similarly, 136(22.8%) males and females said that using a projector increased their comprehension level, while 72(12.1%) males and females agreed that using models helped them with comprehension, and 69(11.6%) males and females said that charts used by teachers increased their comprehension level.
3. It is proved that 227 (42.6%) male and female respondents feel that the use of AV/Aids always increases their comprehension level. Like that, 200 (38%) males and females feel that the use of AVs and AIs mostly increases their comprehension level. While 55 (10.4%) males and females said that the use of AV/Aids some time ago increased their comprehension level. On the other hand, 20 (3.8%) males and females said that the use of AV/Aids by the teacher rarely increased their comprehension level. Like that, 30 (5.7%) males and females said that the use of AVs or AIs never increased their comprehension level.
4. It is proved that 313 (40.5%) male and female respondents considered that the lecture method was used during their teaching and learning process by the teacher in class, while 223 (40.9%) male and female respondents said that the discussion method was used during their learning in the class, and 41 (9.3%) male and female respondents said that the activity method was used during their teaching and learning by the teacher in class. while 41 (9.3%) males and females said that project methods were used during their teaching and learning in the classroom. Like this, 19 (4.3%) males and females said that the demonstration method is used by the teacher during their learning in the classroom, while 15 (3.4%) males' male females said that the drill method is used during their teaching and learning process by the teacher.
5. It is proved that 233 (39.5%) males and females agreed that the discussion method is most effective in their teaching and learning process, just as 155 (26%) males and females said that the lecture method is more effective during the teaching learning process. While 131 (22.2%) males and females agreed that cooperative learning is more effective during teaching, while 98 (16%) male and female respondents said that the activity method is most effective in the teaching learning process, and 31 (5%) male and female respondents said that the demonstration method is most effective in the teaching learning process, while 11 (1.9%) male and female respondents said that the drill method is most effective in the teaching learning process.

## **6. Conclusion**

1. Majority of the respondents, 296(43.4%) male and female feels like proper sitting space is most suitable for working in their classroom.
2. Majority of the respondents, 286(35.0%) male and female agreed that Multi-media helps them in comprehension of different subjects.

3. Majority of the respondents, 227(42.6%) male and female feels like use of AV/Aids Always increased their comprehension level.
4. Majority respondents, 313(40.5%) male and female considered that lecture method is used by the teacher, during their teaching learning process.
5. Majority respondents, 233(32.9%) male and females agreed that discussion method is most effective in their teaching learning process.

## 7. Discussion

The main objectives of this study are to investigate how the physical classroom environment and teaching methods impact the learning experiences of university students. In this specific content, most of the respondents stated that they have a proper sitting space along with other components of the class for their learning. However, there are many other physical factors, like the proper size of the room, comfortable chairs, and airy rooms, that also have an effect on learning to some extent. These are ways to increase the learning experiences of students. Teachers should use innovative learning methods that are up-to-date and use student-centered methods. The current study revealed that the majority of the students believe that the use of AVs and AIs always increases their comprehension level. Especially multi-media at the university level should be used by the teachers. The importance of teaching should be known by the teacher, and new methods should be adopted according to the interest and maturity level of the student (Gillani, 2005). Many departments and institutions are not adopting the latest teaching methods and techniques for their teaching. Teachers should use new teaching strategies during every lecture. In some universities, lack of AV/Aids like multimedia is not available.

### 7.1. Recommendations

In the light of the findings, following recommendations were made:

- i. The better environment in any classroom plays a significant part in forming better learning experience of the students so there should be available to proper physical facilities like comfortable chairs sitting space proper classroom size should be provided to the student for the better learning.
- ii. Teachers should gave chance to the student to Participate in hands-on learning activities such as lab experiments, field trips, and group projects to enhance understanding and retention of course material.
- iii. Teachers should attend workshops, seminars, and conferences to expand your knowledge and network with industry professionals.
- iv. Higher Education commission should organized after every three months workshops, seminars or conferences for the teachers to learn latest teaching styles, methodologies and innovative strategies for up to dated knowledge.

## References

- Armellini, A., Teixeira Antunes, V., & Howe, R. (2021). Student perspectives on learning experiences in a higher education active blended learning context. *TechTrends*, 65(4), 433-443. doi:<https://doi.org/10.1007/s11528-021-00593-w>
- Awidi, I. T., & Paynter, M. (2019). The impact of a flipped classroom approach on student learning experience. *Computers & education*, 128, 269-283. doi:<https://doi.org/10.1016/j.compedu.2018.09.013>
- Cayubit, R. F. O. (2022). Why learning environment matters? An analysis on how the learning environment influences the academic motivation, learning strategies and engagement of college students. *Learning Environments Research*, 25(2), 581-599. doi:<https://doi.org/10.1007/s10984-021-09382-x>
- Gillani, B. B. (2005). Cognitive theories and the design of e-learning environments. In *Encyclopedia of developing regional communities with information and communication technology* (pp. 119-123): IGI Global.
- Huang, F. (2019). Study on the Practical Innovation of Hybrid Teaching Based on the Modernization of Education.
- Moqaddam, P. S. (2016). Investigating the effect of modern teaching methods on students' educational progress (Case Study: Sama1 Boys Elementary School, Ghaemshahr City). *Mediterranean J Soc Sci*, 7(253), 10.5901. doi:<https://doi.org/10.5901/mjss.2016.v7n3s3p253>



Shi, J. (2019). *Research on golden class of informatization teaching method and the cultivation of teaching art in the artificial intelligence era*. Paper presented at the 2019 International Conference on Management, Education Technology and Economics (ICMETE 2019).