Post Graduate Certificate in Academic Practice 2020-21

MODULE 3

Academic Practice

"Exploring student perceptions and preferences of their psychosocial learning environment"

Manasee Kakkad Faculty Id: 303800547 Learning Set: Jiddu K Pearl Academy, Mumbai

Declaration

I the undersigned solemnly declare that the project report "Exploring student perceptions and preferences of their psychosocial learning environment" is based on my work carried out during the course of my study towards the Post Graduate Certificate in Academic Practice 2020-21 under the supervision of my mentor Mr. Debabrota Das.

I assert the statements made and conclusions are drawn are an outcome of my research work. I further certify that

- I. The work contained in the report is original and has been done by the author under the general supervision of her mentor.
- II. The work has not been submitted to any other Institution for any other degree/ diploma/ certificate in this university or any other university nationally or internationally.
- III. All guidelines provided by the university in writing the paper have been followed to the best of the author's knowledge and capacity
- IV. All materials (data, theoretical analysis, and text) from other sources, have been given due credit and referenced as per the institution's norms.

Manasee Kakkad

Acknowledgments

This paper is written by Manasee Kakkad, a faculty of the School of Design at Pearl Academy, Mumbai. The paper was written as a part of the Post Graduate Certificate in Academic Practice 2020-21. I would sincerely like to thank my mentor Debabrota Das for extending his unconditional support throughout the process. Honest, and love-filled thanks are also extended to Kavita Fatarpekar and Renuka Tewari for their consistent steadfast support all through the process of writing, revising, and finalizing the paper. The critical inputs and the emotional support by my learning group and the mentoring group have helped shape this paper to its outcome. A special and loving thank you to all my students, who helped by taking out time and lending support to the innumerable formal and informal discussions leading to their valuable feedback that eventually took this paper to its final result.

The following paper aims to give a deeper understanding of the psychosocial dimension of a classroom environment. The paper explores the factors that influence the learning environment and further goes on to investigate the student perceptions and expectations of this environment. The larger aim of the paper is to give educators and institutions deeper insights on student expectations that go beyond content and curriculum which can help develop a supporting, enriching, and encouraging environment for all to function in.

Keywords: learning environment; psychosocial learning environment; student perception; student expectation; Generation Z; What is happening in the classroom (WIHIC); Teacher-Student relationship; Student–Student relationship.

Contents

1.	Introduction	θ			
1.1	Learning Environments	7			
1.2	Psychosocial learning environment	7			
2.	Literature review	8			
2.1	Background on the learning environment	8			
2.2	Learning Environment Research. (LER)	10			
2.3	Understanding the psychosocial learning environment	11			
2.4	The current learner - Generation Z	13			
2.5	Student -Student relationship	13			
2.6	Teacher-Student relationship	13			
2.7	Assessing student perceptions.	14			
3.	Research aim and objectives	16			
3.1	Scope and limitations of the study	16			
3.2	Research approach and strategy	17			
4.	Research methodology	18			
5.	Research data findings	20			
5.1	Analysis and discussions	23			
6.	Conclusion	24			
6.1	Way forward	25			
Refe	erences	27			
Ann	exures	32			
Ann	exure 1: What Is Happening In this Class? (WIHIC) Questionnaire	32			
Ann	exure 2: Formulation of the research questionnaire	34			
Ann	exure 3: Quantitative research – Final Questionnaire	35			
Ann	exure 4: Quantitative research findings	38			
Ann	Annexure 5: Focus aroun –Structure planning and key findings.				

1. Introduction

"They may forget what you said — but they will never forget how you made them feel" - Carl W. Buehner-

If there ever was a quote that represented teaching for me, it has to be this one. As a passionate and emotional educator, I am very conscious and considerate of my learners and the environment I generate in my classroom. Over the years my personal experience with reflective practice and multiple discussions with peers and mentors have confirmed the belief that while delivering the right content is crucial; it is the classroom environment within which the content is delivered that matters the most. Research has also shown how "Students are likely to learn better when they perceive their classroom environment positively" (Dorman & Fraser, 2009; Velayutham & Aldridge, 2012), thus making all educators extremely conscious of their classroom environment.

"Luminaries such as Confucius (551-479 B.C.E.), Plato (427-347 B.C.E), St. Augustine (354-440), Jon Amos Comenius (1592-1650), Jean-Jacques Rousseau (1712-1728), and John Dewey (1859-1952) have had a major role in shaping the way modern researchers have gone about exploring learning environment." (Bernard, Jean; The UNESCO Institute for Statistics (UIS), 2012). Additionally, past years have also seen education systems rapidly evolve to respond to the changing demands of society, which had led to fast-paced developments of "innovations in curriculum, methodologies, materials, and technologies and may require major changes in the design and organization of the environments in which they are housed" (Bernard, Jean; The UNESCO Institute for Statistics (UIS), 2012, p. 9). Thus making the study and understanding of the learning environment extremely crucial.

"We work in surroundings that our colleagues of thirty years ago would not recognize." (Ramsden, 2003, p. 3). As per UNESCO, over one and half billion students were on remote education when the covid-19 pandemic was at its peak. (UNESCO Service Press, 2020). Therefore, "Universities are facing new challenges that put increasing pressure on the development of learning environments" (McCune & Entwistle, 2011). In their paper "Learning environments preferred by university students" (Valtonen, et al., 2020) state how "Many of these challenges are related to the application of new pedagogical approaches, the rapid development of educational technology, the diversification of non-traditional student populations in need of flexible courses, and the growing expectations related to the skills needed in current and future working life." With this increased development of pedagogical practices, there is always a need for an enhanced learning set-up that accommodates students'. The learning environment should ensure active student participation and support better learning. Therefore making the university learning environment, one of the keys factor to meet higher education expectations and, for supporting the use of different pedagogical approaches.

1.1 Learning Environments

"In brief, the environment consists of those conditions that promote, or hinder, stimulate or inhibit, the characteristic activities of a living being."

-John Dewey-

Learning environment (LE) is a broad term and generally covers diverse physical locations, contexts, and cultures in which students learn. Since students may be in a wide range of learning settings that may be beyond a confined classroom, the term learning environment is a preferred alternative to the classroom environment, which has limited and traditional references.

Fraser, (2007; 2012) describes a learning environment as the "physical, pedagogical, psychological, and, the social context" in which learning occurs and which affects student achievement and attitudes." These are elaborated as below:

- Physical learning environments: This refers to the overall design and layout of a given classroom or space where learning happens.
- Pedagogical learning environment: "The pedagogical learning environment covers the pedagogical methods and practices used in learning and teaching." (Silander & Ryymin, 2012)
- Psychosocial learning environment (psychological + social): The psychosocial learning environment covers psychological and social factors that have consequences for satisfaction, health, and ability to perform at the place of study.

While the right integration of the above aspects helps create an optimum learning experience. There is a significant need to explore each of these dimensions as an essential outcome in educational research. "The task of understanding the multiple aspects of learning environments and then attempting to make these environments more effective is a complex undertaking." (Hiemstra, 1991).

Learning environment research over the last 40 years has shown that "the quality of the classroom environment in schools is an important determinant of student learning" (Fraser, 2007). The classroom learning environment can also be defined in terms of the students' and teachers' shared perceptions in that environment. Schunk and Zimmerman (2007), state that "students' social environment can influence their affective domains and behaviors." Additionally, teachers, who are an integral component of this environment, can inspire students by creating favorable conditions where students can feel personally efficacious and motivated, and, therefore, will work harder to succeed. Thus making the **teacher and student the focus of the learning environment.** Therefore exploring the learning environment from the perspective of these active participants (teachers, students, and their interdependency) can help give insights into building better learning experiences.

1.2 Psychosocial learning environment

Oxford dictionary (2021), defines psychosocial as "relating to the interrelation of social factors and individual thought and behavior". The psychosocial learning environment as stated earlier covers "psychological and social factors that have consequences for satisfaction, health, and

ability to perform at the place of study". They also include "social factors, such as the relationship between the students, health, and ability to perform in the class." (Moos, 1979).

It is noted that the psychosocial environment plays an important role in attracting students and allowing them to be successful within the classroom. Studies by Fraser (2007,2012) and Jane, (2012) suggest and insist that the "psychosocial environment in the classroom should be well-taken care of to maximize student attention and better the learning." While educators play a crucial role to develop and shape this learning environment, it is the learner's responsive acts and interactions that determine the success of the learning environment, therefore making students the focal point. Hence it is extremely crucial to understand student perceptions and expectations of their psychosocial environment and study the subsequent impact it has on their learning.

2. Literature review

The following set of chapters explore the evolution of the learning environment and its research. The section broadly discusses the psychosocial dimension of the learning environment and the theoretical context and frameworks used to measure it. The segment further discusses the current generation of students who are the focal point of these learning environments along with exploring the crucial social relationships that shape this environment.

2.1 Background on the learning environment

The concept of a learning environment can be traced in Lewin's¹ (1936) equation of human behavior where he proposed that "human behavior is an output of an individual's characteristics and its interaction with the environment, thereby establishing the impact one's environments can have on the individual."

Many factors contribute to the effectiveness of learning. Over the years multiple understandings of a learning environment have been developed, but largely they all refer to the "social, physical, psychological, and pedagogical context (Fig. 1) in which learning occurs and which affects student achievement and attitudes." (Fraser, 2007; 2012). Abe (2005) mentioned them as "physical environment, psychological environment, sociological environment, and psychosocial environment", while Manninen, Burman, Kovinen, Kuttinen, Luukannel, and Passi (2007) defined and elaborated such environments using "five different perspectives, which can be used to contemplate the different elements of the environment: physical spaces, teaching and learning approaches, social and collaborative aspects supporting learning, technologies used, and contextual learning places" (Fig.2).

¹ Kurt Lewin was a German-American psychologist, is known as one of the modern pioneers of social, organizational, and applied psychology in the United States. He is popularly known for his model of Human Behaviour, B= f (P, E).

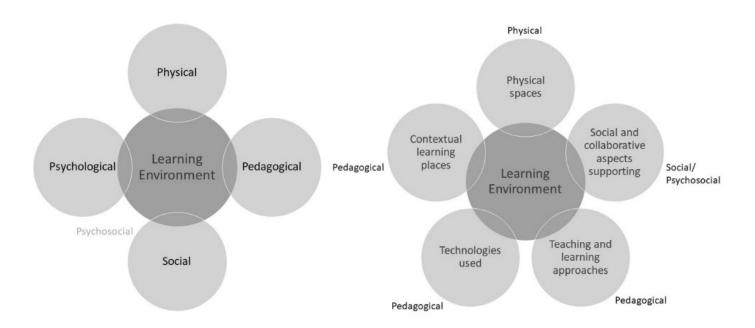
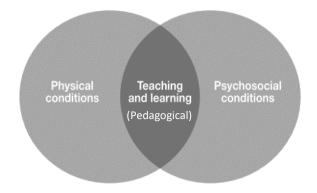


Fig 1: Learning environment as defined by Fraser (2007; 2012). Drawn by author

Fig 2: Learning environment as defined and elaborated by Manninen et al. (2007). Drawn by author

The above diagrams help understand the three larger domains under which learning environments can be categorized, **physical**, **psychosocial** (**social+ psychological**), and **pedagogical**. Since "classroom climate/ learning environment is important for learners development and helps students engage and succeed in learning" (Reyes, et al., 2012), many educational researchers over the past years have developed a deep interest to understand the **interrelationship of these categories** and study their impact on student learning. UNESCO Institute for Statistics in its report by Bernard (2012), depicts the "interrelationship of major categories of learning conditions in a simple Venn diagram" (Fig 3).



- Physical conditions: Overall design and layout of the space.
- Pedagogical conditions: Methods and practices used in learning and teaching.
- Psychosocial conditons: (psychological + social): Psychological and social factors that have consequences for satisfaction, health, and ability to perform at the place of study.

Fig 3 Major categories of learning conditions from a holistic perspective (Bernard, Jean; The UNESCO Institute for Statistics (UIS), 2012, p. 34)

The diagram stresses the impact physical and psychosocial conditions have on the teaching and learning (pedagogical) aspects in the classroom. It is in this "joint space" (teaching and learning/

pedagogical) "where the perceptible and imperceptible elements of a learning environment merge to support effective teaching and learning." (UNESCO Service Press, 2020). The teaching and learning space is supported by the curriculum, assessment, grading, teaching methods, materials, etc. The teacher/ tutor is largely responsible to maintain the quality of these interactions. Even though teachers' skill is the driving force to maintain class motivation, classroom management, and planning the learning experience; the student's response is what ultimately determines the success of a learning environment. Thus making the learning environment/ classroom environment "a miniature community in which member's interest influences the behavior of others." Talton and Simpson (2004). Resourceful information about this miniature community can be derived from the understanding of the many inter-relationships and personal perceptions of its users (mainly students and teachers).

2.2 Learning Environment Research. (LER)

The field of Learning Environment Research (LER) offers a potent framework for exploring the relationships between education and the development of learning systems to support them. Learning Environment Research by Moos (1979); Taylor, Fraser, and Fisher, (1997), Fraser (1998, 1999) and Lorsbach & Jinks (1999) examined the "multifaceted interrelationships between teacher and student perceptions of the psychosocial climates and student cognitive, affective, and motivational outcomes" Additionally, "the nature of a learning environment is influenced by the activities teachers provide in it, the social practices and affective attitudes of teachers and learners in it, and how it is structured psychologically and physically". (Fraser & Fisher, 1982).

Learning environments research originated in the USA approximately 40 years ago with the pioneering work of "Herbert Walberg"—involving the use of the "Learning Environment Inventory (LEI) in the evaluation of Harvard Project Physics" (1968) and Rudolf Moos² whose work in numerous human environments led to the development of the "Classroom Environment Scale(CES)" (Moos & Trickett, 1986). Over the past years, a range of specialized areas of study have emerged within LER, particularly with context to subject-based education like math and science (Fraser, 1998a), (Nix, et al., 2005); problem-based learning (Dochy, et al., 2008); learner-centered education (Alfassi, 2004); and the development, validation, and application of research instruments (Fraser, 1999) (Seidel & Shavelson, 2007).

The broadest and most enduring theme of LER is the idea "that students' perceptions of their environments exert a strong influence over their cognitive, affective, and behavioral outcomes" Fraser & Fisher (1982); Seidel & Shavelson (2007) Fraser (1998) Moos & Trickett (1986), thereby encouraging researchers to explore and understand student perceptions.

10

² Rudolf Moos is Professor Emeritus in the Department of Psychiatry at Stanford University (Stanford, CA) and a Health Science Specialist at the Department of Veteran Affairs (Palo Alto, CA). He has made significant contribution in the areas of research leading to assessing the quality of family and work environments.

2.3 Understanding the psychosocial learning environment

As discussed earlier, learning environment research investigates a wide range of aspects found in classroom and school climate, one particular dimension being the psychosocial environment. The concept of psychosocial climate refers to the "psychological, social, and systemic dimensions that can be identified by examining individual needs and the order and structure of social environments the individual operates in" Insel & Moos (1974) and Trickett (1978) How these psychological and social climate factors mutually interact and affect learner emotions, attitude and cognitive outcomes represent the central focus in LER. Some of the outcomes investigated in LER include the impact on academic achievement, attitudes towards subject areas, and academic efficacy.

According to Haertel and Walberg (2007), "a psychosocial environment is a type of environment that has to do with interaction in the classroom." This interaction involves teacher and student interaction, student and student interaction, teacher-student and interaction with any instructional material." In the opinion of Anderson (2007) "psychosocial environment is the interpersonal relationship among students, between students and their teacher, between students and subject matters studied and method of learning in the classroom." Therefore, a psychosocial environment is a type of environment that promotes desirable patterns of social interaction and communication as well as psychological comfort and stability among students, their relationship with the environment, and their teachers.

Insel and Moos (1974) maintained that the study of psychosocial environment is important because of the "impact on the functioning of persons within those environments, in terms of their satisfaction, mood, self-esteem, and personal growth." Aligning to Lewin's (1936) "equation of human behavior", they proposed that "it is possible to shape the individual's functioning by intervening upon aspects of the environment", They also observed and identified that there is a direct relationship, both positive and negative, between the environment and particular outcomes.

Moos (1979) proposed that "the social climates of most settings can be described in terms of three major constructs: relationship, personal development, and system maintenance." (Fig 4). LER researchers like Fraser, Malone, and Neale (1989); and Fraser and Fisher (1982) further developed and classified variables under these three psychosocial learning environment dimensions as illustrated in Fig. 5 and elaborated below.

The **Relationship** variables are

- Student Cohesiveness: Student Cohesiveness is found where students are friendly with each other in school, help each other, and are supportive of each other in the school context.
- Teacher Support: Teacher Support is related to the extent to which teachers help, befriends, trust, and are sincerely interested in their students.

 Student Involvement: Student Involvement occurs when students show attentive interest in their schoolwork, participate in discussions, do additional work, and enjoy the school program.

The **Personal** Development

- Task Orientation: Task Orientation is related to how important it is to students that they stay on-task and complete schoolwork and assignments.
- Investigation: Investigation means when there is an emphasis on skills of inquiry and its use in problem-solving and investigation.
- Cooperation: Co-operation occurs when students collaborate rather than compete with one another on learning tasks.

The System Maintenance and Change variable is Equity,

- Refers to when students feel their teachers provide them with the same encouragement and opportunities.
- Teachers allow them to have as much a say in the classroom as other students.

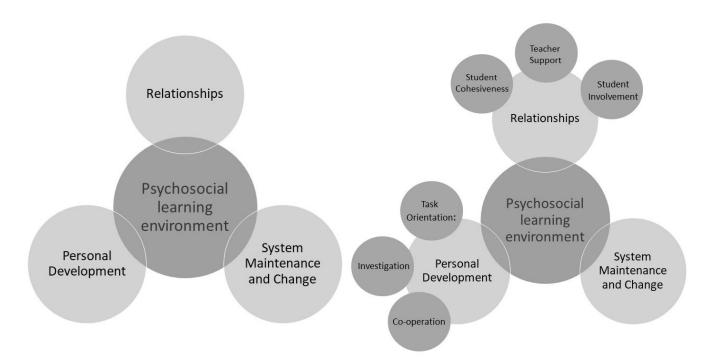


Fig 4: Moos's (1979) three psychosocial learning environment dimensions. Drawn by author

Fig 5: Variables under one of Moos' (1979) three psychosocial learning environment dimensions. Drawn by author

It is evident from the data above that the students are the locus of the psychosocial environments hence, understanding them, their relationships within the psychosocial realm, their perspective, and perceptions are extremely crucial.

2.4 The current learner - Generation Z

Generation Z (Gen Z) is a fact-paced generation that has grown with easy access to technology. "It refers to those individuals who were born in the decade following the widespread emergence of the World Wide Web, from the mid-1990s to the early 2000s." (Wood, 2013). The first set of this generation has already entered higher education. Seemiller and Grace (2017), sees this generation as thoughtful, determined, and responsible, while Williams, (2019) notes them as innovative, pragmatic, and goal-oriented. This goal-driven generation spends a body of their time "consuming and using technology" (Chicca & Shellenbarger, 2018, p. 49). Seemiller and Grace (2017), also add that while these students rely heavily on information technology and prefer to learn and work independently at their own pace. Even though "Gen Z spends a great deal of screen time communicating, they report in-person communication' as the preferred way to touch base with managers in the work setting" (Rise People, 2018). They prefer "passionate instructors but do not like the traditional lecture format" (Shatto & Erwin, 2016.) as they have "8-second filter" or attention spans (Finch, 2015). Additionally, American Psychological Association [APA], (2018), also adds anxiety as a significant issue for these students.

In conclusion, Generation Z students are driven by technology, prefer to work at their own pace, seek a great deal of feedback, and can be anxious. Therefore making it is crucial to understand their perceptions and expectations from the psychosocial learning environment to provide them better support and an enriching learning experience.

2.5 Student -Student relationship

One key element of the psychosocial learning environment is the student-student relationship. We have all experienced its impact in our classroom. According to Sher and Trull (1994), "the student-student relationship is a relationship that deals with the exchange of information and ideas that occur among students". Similarly, Mgboro and Omebe (2002) stated that a "student-student relationship is a form of relationship that involves the peer group." Sher and Trull (1994) explained further that a "peer group is a group of individuals who are of approximately equal size, age, and status with whom the student finds him in the same class." According to Kirk (2009), "a peer group is a small group of similar age, fairly close friends, sharing the same activities." Onyehalu (2004) observes an "individual relies on peers for social acceptance support and solidarity." Therefore, it can be inferred from the definition that the student-student relationship is a crucial component of the psychosocial environment and needs to be encouraged.

2.6 Teacher-Student relationship

Hughes and Chen, (2011) state that the "Teacher-Student relationship forms the basis of the social context in which learning takes place". In the same tone, Liberante, (2012) stated that "the Teacher-student relationship is not only valuable but it forms the basis of the social context in which learning occurs." Hamre and Pianta (2006) claim how it is evident via literature that "strong and supportive relationships between teachers and students are fundamental to the healthy

³ 8-second filters: Not the attention span but a very high filter for sorting enormanous data, very common the the teachnology depandant generation who tend to have easy access to enormous data in a short time.

development of all students." Therefore, contributing to both academic and psycho-socio development. The teacher-student- relationship provides a unique entry point for educators and others working to improve the social and learning environments of schools and classrooms and has been a topic of multiple researchers like Hughes and Chen (2011); Roorda, Koomen, Spilt, and Oort (2011), Schlechty and Atwood (1977). As per Mucherah, (2008) "it provides a strong foundation for a successful social and academic environment." Hence, the teacher-student relationships help maintain students' interest's in academic and social pursuits, which in turn lead to better grades and a more positive learning environment.

2.7 Assessing student perceptions.

The previous chapters helped identify the students/learner as the locus of the psychosocial learning environment. It helps us understand how the psychosocial learning environment is determined by the student's engagement with; their peers, their teacher, and the learning material. (see Fig 6). Therefore, to stimulate and optimize student learning environment, knowledge of students' perceptions towards their learning environment is crucial for both teachers and educational researchers.

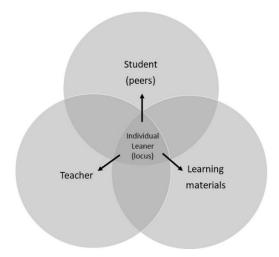


Fig 6: Locus of the psychosocial environment. Drawn by author

There are multiple ways in which studies of psychosocial environments have been conducted. Trigwell and Prosser (1991) identified ten items namely "clear objectives, clear explanations, well prepared, helped to understand, creates interest, the relevance of the subject, a chance for questions, time for consultations, clear assessment criteria, and the adequateness under which students satisfaction and preferences can be evaluated." While Church, Elliot, and Gabel (2001) structured a study "to examine the predictor role of perception toward the psychosocial environment; key factors included lecture engagement, evaluation focus, and harsh evaluation"

Frazer (2007), states "the past 30 years have seen a wide variety of economical questionnaires used to assess students' perceptions of the learning environment," these include "My Class Inventory (MCI)" by Sink & Spencer, (2007), and "Classroom Environment Scale (CES)" (Moos & Trickett, 1986) which are general-purpose questionnaires. Additionally, there were questionnaires specific like "Teacher Interaction (QTI)" (Wubbels & Levy, 1993) which focussed

on the interpersonal interactions between the teacher and students. Amongst all these one widely used questionnaires to gauge, the psychosocial environment is **What Is Happening in this Class?** (WIHIC).

"What Is Happening in this Class? (WIHIC)", originally developed by Fraser, McRobbie, and Fisher (1996) attempts to incorporate the scales that previous studies had shown to be predictors of student outcomes and which align with Moos' scheme for classifying the dimensions of any human environment (see fig 4 and 5). The WIHIC is structured under three scales measuring 'relationship' (student cohesiveness, teacher support, and involvement), 'personal development (investigation, task orientation, and cooperation), and 'system maintenance and change' dimensions (equity) see fig. 7.



Fig 7: "What is Happening in class" questionnaire in alignment to Moos's (1979) social climate constructs. Alongwith description towards each measuring scale. (see annexure 1 for detailed reading)

This questionnaire has been widely used in classroom environment research and as per Alridge and Fraser (2000) "is well applicable in today's classroom settings."

This literature review has helped establish the key variables in a psychosocial learning environment along with identifying the teacher and student as crucial factors. The students are

the nuclei of this environment and studying their perceptions and expectations is crucial for the success of any learning setup. Additionally, the current generation of learners have characteristics that may impact their perceptions and expectation of the learning environment. Hence for a success of a learning environment, there is a need to assess student perceptions with tested instruments to get a deeper insight.

3. Research aim and objectives

"When It Comes To The Design Of Effective Learning Experiences, One Provocative Question Is Worth A Hundred Proclamations" Bernard Bull-

As stated earlier, ensuring an effective learning experience/environment is a central matter of concern for all of us involved in higher education. The relevance of the psychosocial conditions within the learning environments is well established and educational researchers are now studying and evaluating the psychosocial setups to support maximum effective learning. Additionally, with expanding pedagogy and flexibility of teaching styles including online and offline domains, it is more crucial than now to examine and evaluate if the psychosocial environments are supporting these changes. Another crucial focus is "the differences between student and teacher perceptions of the actual classroom environment and that preferred by students and teachers" (Fraser & Fisher, 1982). Differences in these perceptions can be a source of frustration for teachers who fail to understand why students might not be responding as expected.

Consistent with Insel and Moos's (1979) proposition that the psychosocial environment can be managed to produce desired outcomes, the current study sought to understand **which psychosocial dimensions are crucial from a student's perspective.** The insights hope to bridge the gap between teachers' perceptions and student expectations on the psychosocial dimension.

Based on this, the paper aims to

- 1. Identify current students' perceptions of psychosocial learning environments
- 2. Get a deeper insight and logical understanding of their preferences and expectations from their psychosocial environment

3.1 Scope and limitations of the study

The scope of study of this research is to explore student perceptions of the psychosocial dimensions of a learning environment. The research will take support from existing theories and frameworks as spoken in the previous chapters.

The structure, approach, and design of the research permit the application to larger groups and sizes, but given the constraints due to the ongoing pandemic, the research currently has been limited to a "pilot study for the Interior Design department at Pearl Academy⁴." The interior design department is one of the largest departments in the School of Design at Pearl Academy. It

⁴ Pearl Academy (formerly Pearl Academy of Fashion) is an Indian higher education institution in India. It offers courses across multiple streams in the filed of design, creative business and media.

runs courses at the undergraduate and post-graduate levels. This course is currently conducted across fours campuses across India, Delhi, Jaipur, Mumbai, and Bangalore. Students across all campuses, levels, and courses under interior design will be encouraged to be a part of this research. The research findings therefore will be limited to design student perceptions. On the successful evaluation of relevant understanding and recommendations in this pilot study, the structure can be further applied to larger groups across cities and colleges.

3.2 Research approach and strategy

As per Fraser, (2001), "students spend up to 20,000 hours at educational institutions by the time they finish university." Therefore, students' observations and reactions to their experiences in school – specifically their learning environments – are of significance. Although the study reported in this paper will be largely quantitative, it would include some important qualitative information to provide richer insights into the learning environments, "past studies have shown success when combined qualitative and quantitative research methods in studying the classroom learning environment are applied at different 'grain sizes' " (Fraser, 1999). Hence, the first part of the research will gather quantitative data on student perceptions of their current learning environment and their expectations; the second part will focus on logically aligning the qualitative research obtained by student inputs towards understanding their thoughts on the psychosocial environment.

Quantitative data on psychosocial factors will be obtained using a questionnaire (see annexure 3) which will help understand students' perceptions about their psychosocial learning environment as well as satisfaction and preferences. This will be followed by curated focus groups with exploratory questions and discussions aligning with the questionnaire results to get deeper insights into student thoughts and expectations (see annexures 2 and 5). The research approach/ strategy is illustrated in Fig. 9

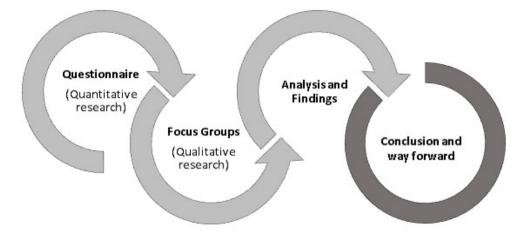


Fig 8: Research strategy and process applied to exploring student perceptions and preferences of the psychosocial learning environment. Drawn by Author

The sample for the data collection (learning environment perceptions and expectations) includes interior design (see ch. 3.1) students (UG and PG) across campuses at Pearl Academy. The total

sample available for the analyses reported in this paper consisted of 111 student responses, across 4 campuses.

4. Research methodology

Based on the strategy, and process identified in the previous chapter, the research was split into two clear parts: a questionnaire for the quantitative research and a focus group for the qualitative research. This type of research methodology is validated by Fraser & Walberg (1991) who state "mixed methodology of quantitative and qualitative research helps to provide greater validity and logical explanations to the findings"

Part 1: Quantitative research, based on What is Happening in this Class (WIHIC) questionnaire

The psychosocial perceptions in the study were obtained by administering a questionnaire largely based on the "learning environment instrument entitled What is Happening in this Class (WIHIC)" developed by Fraser, Fisher, and Mc Robbie (1996). The What Is Happening In This Class? (WIHIC) consists of 7 scales and 56 items. The seven scales are Student Cohesiveness, Teacher Support, Student Involvement, Investigation/ involvement, Task Orientation, Cooperation, and Equity. (Annexure 1; figure 7). As per Zandvleit (1999), "This questionnaire has proved to be a valid and reliable measure for determining student perceptions of their learning environment." Hence, for this research, curated questions from "WIHIC" were broken down into simpler tangible terms and grouped as per the categories that could help support the aimed output. The questions were reframed and neutralized to ensure no leading. The categories under which the questions were grouped aligned to the same seven factors that align to Moos' (1979) three psychosocial learning environment dimensions. A further scale of general satisfaction was added, this helped compare the student inputs to the overall academic satisfaction.

Part 1a: Formulation of the questionnaire.

Based on the structure and categories of the What is Happening in this Class (WIHIC) questionnaire, this research questionnaire was split into three broad categories identified by Moos (1979); relationship, personal development, and equity. Direct questions were placed under each category to identify the crucial variable from the student's perspective in the larger domain. For example, within the relationship domain, student preference and perception of the variables (teacher support, student cohesiveness, and student involvement) were enquired upon my formulating relevant questions. See the table below for reference.

Moos's	Variable under the	Sample question	Variables	
category	category		rephrased for	
			better student	
			understanding	
Relationship	Teacher support	In your current learning	Teacher support	The expected result
	Student	experience, which as per	Student support	will help
	cohesiveness you has been the most			understand student
	Student involvement	influential factor for your	Self-motivation	preferences and
		success?		perceptions

Further, a few more questions were particularly formulated to gauge the student perception of a particular variable; for example teacher support or task orientation. See Annexure 2 for a detailed understanding of questionnaire formulation and annexure 3 for the final questionnaire sent to the students.

Part 2: Qualitative research, focus groups, and follow-up interview.

Based on the questionnaire results and for a better logical understanding of the student inputs a follow-up curated discussions within focus groups were conducted, these included three focus groups with an average of ten students in each. The students were a mixed batch of undergraduate and postgraduate students across the Pearl Academy campuses. The main questions sought information about their understanding of the psychosocial learning environment prevalent in their classroom and what type would they prefer in an ideal environment. Students were also investigated on factors of

- Satisfaction: Overall satisfaction with the course
- Support: Support from faculty and peer
- Encouragement: Factors that motivate and encourage you to succeed in your learning environment.

The questions were in line with the WIHIC questionnaire parameters and the questionnaire sent to the students (see annexure 2) The table below shows an overview of the focus group. See annexure 5 for further details.

	Number of students	Mode of conduct	
Focus group 1	8	Zoom	
Focus group 2	9	Zoom	
Focus group 3	16	Zoom	

Sample size and participants.

The final participants for this study were 111, 2nd, 3rd and, 4th-year undergraduate interior design students and 1st and 2nd postgraduate Interior Design students all attending classes at various campuses of Pearl Academy (Delhi, Jaipur, Mumbai, Bangalore). Among the participants,91 (82%) were female and 20 (18%) were male. The participants were in the age ranges from 18 to 45 years. The questionnaire was administered at the start of their odd semester in the academic year 2021-22 and referenced their psychosocial learning environment which included diverse modules, multiple teachers, and peers they have engaged with. Participants completed the questionnaires beyond the classroom hours. A clear explanation of the questionnaire was shared with the students before distribution. The students took approximately 8-10 minutes to complete the questionnaires and participation was voluntary. The questionnaire was filled by 64 (57%) postgraduate students and 47 (43%) undergraduate students.

Out of all the students who filled the questionnaire, a few cohorts were selected to be a part of the focus group discussions. The participation again was voluntary. The discussions were an extension of the questionnaire to get deeper insights into the student's preferences. (see annexure 2 and 5)

5. Research data findings

The paper first reports the statistics of the quantitative data which was used to identify student preferences and expectations from the psychosocial learning environment. These key preferences and findings are then cross-aligned with the inputs from the focus group discussions. This cross research methodology as mentioned earlier aims to give the research a logical analysis and conclusion. The research data findings are presented under headings and variables identified in the WIHIC questionnaire (see annexure 2). Each heading discusses the data of the quantitative research (questionnaire) followed by inputs from the qualitative research (focus group discussion). See Annexure 4 and Annexure 5 for detailed research data.

The questionnaire began with identifying the most crucial question of student satisfaction. It aimed to enquire on the "students overall academic experience so far" this formed the crux of exploring student perceptions and trying to draw alignments and similarities between satisfied and dissatisfied students.

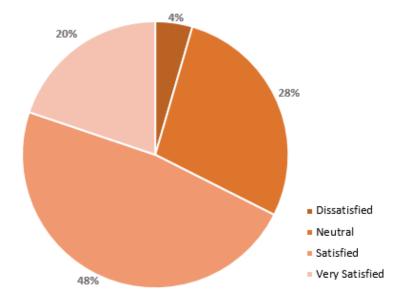


Fig 9: Count of overall academic experience (Annexure 4)

A total of 48 % of students said they were satisfied with the academic experience, and an additional, 20% said they were very satisfied with the course. Considering this as a framework, the data found is hinged on understanding the perceptions of the satisfied and the dissatisfied students. The findings are split into Moos's three dimensions of the psychosocial environment (relationship, personal development, and equity) to give a better perspective of students' perceptions and expectations within each domain.

Relationship domain.

The two pertinent questions asked in the relationship domain gave the below findings. **58.6** % **of the students ranked teacher support as the most influential factor** of the psychosocial environment contributing toward their classroom success. While the students agreed on it being the most influential factor they rated **teacher support and self-motivation as factors that currently need better planning and may not be up to their expectations for a successful class environment.** Student support which is the third dimension of the relationship domain was neither considered crucial nor needed better planning in classroom environments. This was raised as a point to be investigated in the focus group to explore student understanding and expectations of this variable.

Focus group findings

The sample group of students (questionnaire and focus group) are students who have experienced online and offline learning during the pandemic. It was noted on inquiry that students consider the teacher as the locus of the classroom and that the teacher has the largest impact on the class. Most students were satisfied with the teacher support offered to them in an online space. Given the pandemic, the teachers were available beyond classroom hours making learning and understanding easy. This also gave the students a sense of security, trust comfort, and dependability, which as per the two groups were a reason for them to be motivated in the difficult pandemic times. An interesting observation of the **teacher's over availability was the lack of students reaching out to peers thereby giving little or no importance to the student or peer support.**

Personal development domain.

Almost 68.5% of the students rated the ability to self explore and investigate has played a crucial factor in their personal development. This particular domain was picked by both sets of students satisfied and dissatisfied by the academic experience. Thereby confirming its importance in student perception irrespective of their current satisfaction level. Almost **55% of the students state that pursuit of high grades is not a crucial factor for their personal development.** The percentage of this was higher in the satisfied and very satisfied categories.

Focus group findings

Grades not being a crucial factor towards personal development was agreed upon in all focus groups. On inquiry, almost all students stated that being self-motivated was extremely crucial and one factor that supports self-motivation was the appreciation by faculty and peer. Since the students came from a design background, they mentioned the final design output being subjective, hence didn't consider grades vital. One focus group did mention that high grades can sometimes help in motivation or validation of hard work.

Equity (equal treatment for all)

Almost all students answered both the questions under this domain positively. **72.9** % **agreed on the teacher having fair rules in the class, while 80.1 agreed on the teacher being approachable clear on content, and patient with repetition to help resolve doubts.** Overall 40% of the students were in strong agreement with the teacher being patient with students and resolving all doubts. The percentage of students who agreed was extremely high in the satisfied category of the students.

Focus group findings

Students are highly impacted by the teacher and his/ her actions in the class. Focus groups 1 and 2 mentioned the need to be comfortable with the teacher for a superior learning experience. They found their teachers' **patience and non-judgemental attitude** made it extremely easy for them to reach out and ask for support which as per them is essential in their learning environment.

Student cohesiveness

59.5% of the students thought they had extremely supportive classmates while 37.8% had a neutral stand, where they thought their classmates were neither supportive nor non-supportive. The percentage of students who thought their classmates were supportive were noticeably higher in the satisfied and very satisfied category.

Focus group findings

This variable gave in interesting insights into both the researches. Student support as mentioned earlier was neither influential nor needed better planning as per current student perceptions. While most admitted to having a positive set of supportive classmates, they had little or no expectations of the peer group. With no expectations, there was no disappointment. The students across all focus groups mentioned they reached out to their peers mostly while doing group tasks. Most of the other times there were driven by their work or reached to the teaching team. On further discussions focus groups 2 and 3 mentioned how due to the ongoing pandemic and online classes, they now in hindsight felt they missed on peer learning and do look at it as a failed opportunity. They would have preferred to have self-created or classroom-created opportunities that encourage peer learning. Group 2 also mentioned the cohort sizes and felt that restricted the interaction and discussions. They prefer slightly larger cohorts (15-20 students) to have meaningful peer support.

Investigation

This variable explored the class environment's emphasis on the skills and processes of inquiry and encouraged students towards problem-solving and investigation. The result validated the earlier stated student inputs, that high grades are not being a driving force for them in personal development. The students rated appreciation from faculty and peers (35.1%) marginally higher than self-motivation (33.3%) in their preference of factors that encourage them towards investigative skills. Getting encouraging responses on asking multiple questions (27.9%) was also

considered a key factor to push their investigative skills. It was interesting to see that the category of students who were satisfied with the overall academic experience, rated getting encouraging responses on asking multiple questions and self-motivation much higher than appreciation from faculty.

Focus group findings

Most students expect thriving positive environments for their learning set-ups. Multiple discussions with students during and beyond focus groups have concluded with students wanting appreciation towards their work. Most students said the appreciation that comes from the faculty and peers is a driving force for self-motivation. The lack of appreciation is almost always demotivating. The students also tied this discussion with teacher support and mentioned getting encouraging responses pushed them to explore over and beyond their scope.

Task orientation

In the variable of task orientation that explores the extent to which it is important to complete activities planned and to stay on the subject matter, 69.4 % of students said achieving all set goals; academic and personal is an achievement that they are proud of and look an environment that can support the same. This number was consistent across all categories of students (satisfied and dissatisfied)

Focus group findings

In all three group discussions, students mutually agreed on achieving all set goals is the ultimate satisfaction. Students further added that peers, teachers, and families are their true motivators to help achieve their goals. The discussion also led to understand and high grades aren't a goal that many students set for themselves. Group 1 interestingly reflected on considering sharing personal and academic goal targets with teachers and peers and create an environment that can consciously help them achieve that.

Teacher support.

Teacher support has already been identified as a crucial psychosocial dimension from a student perspective. 80.2% of students expressed their satisfaction with the current teacher support made available to them.

Focus group findings.

As previously discussed, students consider teachers as the nuclei for their learning environment, which contradicts the educator's belief that students are the locus of the learning environment. All discussions unanimously agreed on the impact a teacher casts on the learning environment and insisted on how a teacher can make or break the classroom.

5.1 Analysis and discussions

Moos (1979) states "that one long-recognized central feature of learning environment is a relationship", "it has been linked to constructs such as friendliness, competitiveness, cooperation,

cohesiveness, support, welcoming, and positive peer interactions" (Wubbels & Brekelmans, 2005). One of the vital findings from this research reinforced the importance of the studentteacher relationship and the positive impact it has on learning. The students not only perceive the teacher-student relationship as crucial in the current learning environment but also have identified it as a key factor for their overall success. The students perceive the teacher as the locus of the classroom. The research further identified teacher support, perceived as extremely important for student motivation. Fraser, McRobbie, and Fisher (1996) identified teacher support "especially in smaller groups was important to establish a safe learning environment." This also aligned with the findings of Chambliss and Takacs (2014) which speaks about the "positive "influence of teacher support and caring relationship on student motivation." Additionally, a study by Velayutham, Aldridge, and Fraser (2012) identified "student cohesiveness, task orientation, and investigation were the most influential predictors of student motivation." While this study identified task orientation and investigation as crucial for student motivation, student cohesiveness (student-student relationship) was neither a preference nor was perceived as important. To establish the right balance on the learning environment variables, we as educators need to work towards an environment that encourages student support and peer learning. This may need implementations of activities that consciously need students to reach out to peers for their development and progress.

Fraser & Fisher, (1982) and Goh and Khine (2002) have focussed on associating the student perceptions of the learning environment with the student outcome. But student outcomes need not be linked to only high grades and academic success. As this study identified students perceived satisfaction on achievement of their personal and professional goals as far more important than high grades.

The research also established on students agreeing to "being satisfied and content" critical to their learning environment. This aligns with Moos's (1979) proposal that "non-cognitive learning outcomes, such as satisfaction, maybe more important than achievement outcomes because they have a lasting impact."

6. Conclusion

The first part of this paper discussed the factors that are included in the psychosocial learning environment. The central aim of this study was to investigate the student perceptions and expectations of their psychosocial classroom environment. In addition, this study also identified the factors that built the motivational constructs in a learning environment.

Teacher support and personal development were identified as key factors as per learners that determine the success of the psychosocial learning environment. Results also suggested that students expect an environment that supports achieving personal and academic goals set by them as against merely achieving the set learning outcomes.

The result of this study further indicated that attitude toward students, encouraging investigative environment, student interest, and motivation are significant factors of the psychosocial learning environment as perceived by the students.

Results for the psychosocial dimension study further identified how the different variables are interdependent to create a supportive learning environment. For example, the presence of positive teacher support leads to encouragement and motivation amongst students and pushes them towards personal development.

Among all the variables in the psychosocial learning environment discussed in the literature review, the role of student cohesiveness and student-student support is considered the least important by the current set of students investigated. Additionally, the sudden change in the mode of teaching (offline to online) seems to have affected student cohesiveness the most. The online learning environment as per students does not create opportunities to develop a student-student relationship.

It is evident, that since the learning environment affects the student' at all levels, not just educators but educational establishments as a whole should focus on improving the quality of the learning environment in all aspects. The result of this pilot study has helped give inputs towards student perceptions and identify smaller nuances of student expectations of their psychosocial learning environment. This now needs further reflection and application to provide satisfying experiences to the said learners.

In conclusion, the study aligns with Day's (2009) thoughts that, "learning environments cannot simply be planned and implemented in some mechanistic fashion... They need to be sites of nurturing sensitivity, flexibility, adaptability, and responsiveness." It is important to be attentive to what is happening in the classroom and be conscious of student expectations. This will help us as educators not just adapt to pedagogical changes but also address the needs of the evolving generation.

6.1 Way forward

While this study provided relevant inputs on the current student perceptions of their psychosocial learning environments, it was restricted to a pilot study. The overall research framework has the potential to be further applied to larger sample size at the institutional levels. This can help the educational establishments to evaluate and develop student supportive learning environment. This research can be further driven into two distinct directions which can benefit the educational institution.

Direction 1- Exploring the overall learning environment from a student perspective: As identified in the literature review the learning environment comprises physical, pedagogical, and psychosocial. Understanding the student perceptions and expectations across all three dimensions can help give a holistic understanding of the learning environment. This can support institution/university achieve a higher level of student success and satisfaction

Direction 2- Exploring teacher perceptions psychological learning environment: Since teacher and student are the two principal stakeholders of the said learning environment, this study can further help give crucial inputs on how and what the teacher considers important in a psychosocial

learning environment. Cross comparing the results can help bridge the gap between teacher and student expectations and support the building of an enriching learning environment.

With the rapid change in modes and methods of education, integration of technology, and future of education post-pandemic, the overall research has put in agreement with Day (2009) who states that "any strategies to support a more holistic student learning experience should be developed at an institutional level", and I look forward to exploring the above two research directions to help support the same.

References

Abbe, 2005. The predictive validity of the Five-Factor Model of personality with preschool age children: A nine year follow-up study. *Journal of Research in Personality*, 39(4), pp. 423-442.

Alfassi, M., 2004. Reading to Learn: Effects of Combined Strategy Instruction on High School Students.. *The Journal of Educational Research*, 97(4), pp. 171-185.

Allan, J. & Clarke, K., 2007. Nurturing Supportive Learning Environments in Higher Education Through the Teaching of Study Skills: To Embed or Not to Embed?. *International Journal of Teaching and Learning in Higher Education*, 19(1), p. 64–76..

Anderson, L. E., 2007. An examination of classroom context; effects of lesson format and teacher training in patterns of teacher-contact during small group instruction.. *Journal of Classroom Interaction*, 45(1), pp. 25-31.

Bernard, Jean; The UNESCO Institute for Statistics (UIS), 2012. A Place to Learn: Lessons from Research on Learning Environment, Monteal, Canada: The UNESCO Institute for Statistics (UIS).

Chambliss, D. & Takacs, C., 2014. How college works. s.l.:Harvard University Press.

Chicca, J. & Shellenbarger, T., 2018. Generation Z: Approaches and teaching-learning practices for professional development practitioners. *Journal for Nurses in Professional Development*, Volume 34, pp. 250-256..

Church, M. A., Elliot, A. J. & Gable, S. L., 2001. Perception of classroom environment, achievement goals, and achievement outcomes.. *American Psychological Association*, 93(1), pp. 43-54.

Day, K., 2009. Creating and Sustaining Effective Learning Environments. AISHE-J, 1(1), pp. 9.1-9.12.

Dochy, F., Struyven, K. & Janssens, S., 2008. The Effects of Hands-On Experience On Students' Preferences for Assessment Methods. *Journal of Teacher Education*, 59(1), pp. 69-88.

Dorman, J. P. & Fraser, B. J., 2009. Psychological environment and affective outcomes in technologyrich classrooms: Testing a causal model. *Social Psychology of Education*, Volume 12, pp. 77-99.

Dorsey Z, 2018. *Top 10 Generation Z Questions Answer*. [Online] Available at: https://jasondorsey.com/about-generations/gen-z/ [Accessed 26 09 2021].

Finch, J., 2015. What is Generation Z and what does it want. [Online] Available at: https://www.fastcompany.com/3045317/ what-is-generation-z-and-what-does-it-want [Accessed 24 September 2021].

Fraser, B. J. & Walberg, H. J., 1991. Combining qualitative and quantitative methods in classroom environment research. In: B. J. Fraser & H. J. Walberg, eds. *Educational environments: evaluation, antecedents and consequences*. London: Pergamon, p. 271–292.

Fraser, B., 1998a. Science learning environments: Assessment, effects and determinants. In: B. Fraser & K. Tobin, eds. *International handbook of science education*. Dordrecht, The Netherlands:: Kluwer, pp. 527-564.

Fraser, B. J., 1998. The birth of a new journal: Editor's introduction.. *Learning Environments Research*,, Volume 1, pp. 1-5.

Fraser, B. J., 1999. "Grain sizes" in learning environment research: Combining qualitative and quantitative methods.. In: H. C. Waxman & H. J. Walberg, eds. *New directions for teaching practice and research*. Berkeley, CA: McCutchan., pp. 285-296.

Fraser, B. J., 2007. Classroom learning environments.. In: S. K. A. a. N. G. L. (Eds., ed. *Handbook of research on science education*. Lawrence Erlbaum.: Mahwah, NJ, pp. 103-124.

Fraser, B. J., 2012. Classroom learning environments: Retrospect, context and prospect.. In: K. G. T. &. C. J. M. (. B. J. Fraser, ed. *Second international handbook of science education*. New York: Springer, pp. 1191-1239.

Fraser, B. J. & Fisher, D. L., 1982. Predicting students' outcomes from their perceptions of classroom psychosocial environment,. *American Educational Research Journal*,, Volume 19, pp. 498-518..

Fraser, B. J., Malone, J. A. & Neale, J. M., 1989. Assessing anf Improving the Psycosocial Environements of Mathematics Classroom. *Journal for Research in Mathematics education*, 20(2), pp. 191-201.

Fraser, B. J., McRobbie, C. J. & Fisher, D. L., 1996. *Development, validation and use of personal and class forms of a new classroom environment instrument.* New York, American Educational Research Association.

Haertel, G. D. & Walberg, 2007. Socio psychological environment and learning A quantities synthesis.. *British Educational Research Journal*, 7(27), p. 36.

Hamre, B. K. & Pianta, R. C., 2006. Student-teacher relationships. In: G. C. Bear & K. M. Minke, eds. *Children's needs III: Development, prevention, and intervention*. Washington, DC: National Association of School Psychologists, pp. 59-71.

Hiemstra, R., 1991. Creating Environments for Effective Adult Learning. 1 ed. U.S: Jissey-Bass.

Hughes, J. N. & Chen, Q., 2011. 'Reciprocal effects of student—teacher and student—peer relatedness: Effects on academic self efficacy. *Journal of Applied Developmental Psychology*, 32(5), p. 278–287.

Insel, P. M. & Moos, R. H., 1974. Psychological environments: Expanding the scope of human ecology. *American Psychologist*, 29(3), p. 179–188.

Khine, M. S., 2002. Study of learning environment for improving science. In: S. C. Goh & M. S. Khine, eds. *Studies in educational learning environments: An international perspective*. River Edge, NJ: World Scientific..

Liberante, L., 2012. The importance of teacher—student relationships, as explored through the lens of the NSW Quality Teaching Mode. *Journal of Student Engagement: Education Matters*, 2(1), pp. 2-9.

Lorsbach, A. W. & Jinks, J. L., 1999. Self-efficacy theory and learning environment research.. *Learning Environment Research: An International Journa*, Volume 2, pp. 157-167.

Manninen, J. et al., 2007. *Environments supporting learning: Introduction to learning-environement-thinking.* Helsinki: Finnish: National Board of Education.

McCune, V. & Entwistle, N., 2011. Cultivating the disposition to understand in 21st century university education.. *Learning and Individual Differences*, 21(3), pp. 302-310.

Mgboro, C. U. & Omebe, S. E., 2002. *Principles of human growth and development*.. Enugu: Cheston Ltd. .

Moos, R., 1979. Evaluating educational environments: Procedures, measures, finding and policy implication.. San Francisco: Jossey-Bass.

Moos, R. H. & Trickett, E., 1986. *Classroom environment scale manual.* 2 ed. Palo Alto, CA:: Consulting Psychology Press..

Mucherah, W., 2008. Classroom Climate and Students GoalStructure in High-School Biology Classroom in Kenya. *Learning Environmental*, Volume 11, pp. 63-81.

Nix, R. K., Fraser, B. J. & Ledbetter, C. E., C. E., 2005. Evaluating an Integrated Science Learning Environment Using the Constructivist Learning Environment Survey.. *Learning Environments Research*, 8(2), p. 109–133..

OECD, 2019. Trends Shaping education. s.l.:OECD Publishing.

Onyehalu, J., 2004. Engaging youth in schools: Empirically-based models to guide the feature innovations. *A handbook for National society for the study.*

Radcliffe, D., 2008. A pedagogy-space-technology (PST) framework for designing and evaluating learning places. In: D. Radcliffe, W. Wilson, D. Powell & B. Tibbetts, eds. *Learning spaces in higher education: Positive outcomes by design (Proceeding of the next generation learning spaces.* St Lucia, Queensland: The University of Queensland, pp. 11-16.

Ramsden, P., 2003. Learning to Teach in Higher Education. second ed. New York: RoutledgeFalmer.

Reyes, M. R. et al., 2012. Classroom emotional climate, student engagement, and academic achievement.. *Journal of Educational Psychology*, Volume 104, pp. 700-712.

Rise People, 2018. Communication with GenZ employees: The modern manager's guide., s.l.: s.n.

Roorda, D. L., Koomen, H. M. Y., Spilt, J. L. & Oort, 2011. The influence of affective teacher–student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of Educational Research*, 81(4), p. 493–529.

Schlechty, P. C. & Atwood, H. E., 1977. The student–teacher relationship. *Theory into Practice*, 16(4), p. 285–289.

Schunk,, D. H. & Zimmerman, B. J., 2007. Influencing children's self-efficacy and self-regulation of reading and writing through modeling.. *Reading and Writing Quarterly*, Volume 23, pp. 7-25.

Seemiller, C. & Grace, M., 2017. Generation Z: Educating and Engaging the Next Generation of Students. *About Campus*, 22(3), pp. 21-26.

Seidel, T. & Shavelson, R., 2007. Teaching Effectiveness Research in the Past Decade: The Role of Theory and Research Design in Disentangling Meta-Analysis Results. *Review of Educational Research*, 77(4), pp. 454-499.

Shatto, B. & Erwin, K., 2016.. Moving on from millennials: preparing for Generation Z.. *Journal of Continuing Education in Nursing*, Volume 47, pp. 253-254.

Sher, K. J. & Trull, T., 1994. Personality and disinhibitory psychopathology: alcoholism and antisocial personality disorder. *Journal of Abnormal Psychology*, 103(1), pp. 92-102.

Silander, P. & Ryymin, E., 2012. Strategic leadership in schools and teaching. In: R. &. M. Silander, ed. *Knowledge society development.* Helsinki: Education Department Media Center OSUKE project, pp. 49-59.

Sink, C. & Spencer, L. R., 2007. Teacher Version of the My Class Inventory—Short Form: An Accountability Tool for Elementary School Counselors. *Professional School Counseling*, 11(2), pp. 129-139.

Talton, E. L. & Simpson, R. D., 2004. Relationships of attitude toward classroom environment with attitude toward an achievement in science among tenth grade biology students.. *Journal of Research in Science Teaching.*, 24(6), pp. 507-526.

Taylor, P. C., Fraser, B. J. & Fisher, D. L., 1997. Monitoring constructivist classroom learning environments.. *International Journal of Educational Research*, Volume 27, pp. 293-302.

Trickett, E., 1978. oward a social-ecological conception of adolescent soCialization: Normative data on contrasting types of public school -Classrooms. *Child Development,,* Volume 49, pp. 408-414..

Trigwell, K. & Prosser, M., 1991. Improving the quality of student learning: The influence of learning context and student approaches to learning on learning outcomes.. *Higher Education*, 22(3), pp. 251-266.

UNESCO Service Press, 2020. https://en.unesco.org/. [Online] Available at: https://en.unesco.org/news/unesco-rallies-international-organizations-civil-society-and-private-sector-partners-broad

[Accessed 27 November 2020].

Valtonen, T. et al., 2020. Learning environments preferred by university students: a shift toward informal and flexible learning environments. *Learning Environments Research*.

Velayutham, S., Aldridge, J. M. & Fraser, B. J., 2012. Gender differences in student motivation and self-regulation in science learning: A multi-group structural equation modeling analysis.. *International Journal of Science and Mathematics Education*, 10(6), pp. 1347-1368.

Walberg, H. J. & Anderson, G. J., 1968. Classroom climate and individual learning. *Journal of Educational Psychology*, 56(6), p. 414–419.

Weishen, W., Chang, H. P. & Guo, C. J., 2007. The development of an instrument for a technology integrated science learning environment.. *International Journal of Science and Mathematics Education*, Volume 7, p. 207–233.

Williams, C., 2019. Nurse educators meet your new students: Generation Z. *Nurse Educator*, Volume 44, pp. 59-60.

Wood, S., 2013. *Generation Z as consumers: trends and innovation,* NC State: NC State University.

Wubbels, T. & Brekelmans, M., 2005. Two decades of research on teacher–student relationships in class. *International Journal of Education Research*, Volume 43, pp. 6-24.

Wubbels, T. & Levy, J., 1993. *Do you know what you look like? Interpersonal relationships in education.*. s.l.:Falmer Press/Taylor & Francis, Inc..

Zandvleit, D. B., 1999. *The physical and psychosocial environment associated with classrooms using new information technologies - a cross-national study.* Perth: Curtin University of Technology..

Annexures

Annexure 1: What Is Happening In this Class? (WIHIC) Questionnaire.

Scale and	WIHIC questions	Moos's category
description		
STUDENT	I make friendships among students in this class.	Relationship
COHESIVENESS	I know other students in this class.	
	I am friendly to members of this class	
The extent to	Members of the class are my friends.	
which students	I work well with other class members	
know, help and	I help other class members who are having trouble with	1
are supportive of	their work	
one another.	Students in this class like me.	1
	In this class, I get help from other students	1
TEACHER	The teacher takes a personal interest in me.	Relationship
SUPPORT	The teacher goes out of his/her way to help me	<u>'</u>
The extent to	The teacher considers my feelings.	1
which the student	The teacher helps me when I have trouble with the work	1
gets the teacher's	The teacher talks with me.	1
supports and	The teacher is interested in my problems.	1
encouragement	The teacher moves about the class to talk with me.	1
	The teacher's questions help me to understand.	-
STUDENT	I discuss ideas in class	Relationship
INVOLVEMENT	I give my opinions during class discussions.	Neiduloliship
The extent to	The teacher asks me questions	-
which students	My ideas and suggestions are used during classroom	-
have attentive	discussions.	
interest,	I ask the teacher questions.	-
participate in	I explain my ideas to other students.	-
discussions, do		1
additional work	Students discuss with me how to go about solving problems.	
and enjoy the	1	-
class.	I am asked to explain how I solve problems.	
INVESTIGATION	I carry out investigations to test my ideas	Personal
	I am asked to think about the evidence for statements	Development
The extent to	I carry out investigations to answer questions coming	
which emphasis is	from discussions.	
placed on the	I explain the meaning of statements, diagrams, and	1
skills and	graphs	
processes of	I carry out investigations to answer questions that puzzle	1
•		
inquiry and their	l me	
	L carry out investigations to answer the teacher's	_
inquiry and their use in problem-solving and	I carry out investigations to answer the teacher's	-
		-

	investigations.			
TASK	Getting a certain amount of work done is important to	Personal		
ORIENTATION	me.	Development		
The extent to	I do as much as I set out to do			
which it is	I know the goals for this class.			
important to	I am ready to start this class on time			
complete	I know what I am trying to accomplish in this class.			
activities planned	I pay attention during this class.			
and to stay on the	I try to understand the work in this class.			
subject matter	I know how much work I have to do.			
COOPERATION	I cooperate with other students when doing assignment	Personal		
The extent to	work	Development		
which students	I share my books and resources with other students			
cooperate rather	when doing assignments.			
than compete	When I work in groups in this class, there is teamwork.			
with one another	I work with other students on projects in this class			
on learning tasks.	I learn from other students in this class			
	I work with other students in this class.			
	I cooperate with other students in-class activities.			
	Students work with me to achieve class goals.			
EQUITY	The teacher gives as much attention to my questions as	System		
The extent to	to other students' questions	maintenance and		
which students	I get the same amount of help from the teacher as do	change		
are treated	other students.			
equally by the	I have the same amount of say in this class as other			
teacher.	students			
	I am treated the same as other students in this class.			
	I receive the same encouragement from the teacher as			
	other students do			
	I get the same opportunity to contribute to class			
	discussions as other students	_		
	My work receives as much praise as other students' work	_		
	I get the same opportunity to answer questions as other			
	students.			

Annexure 2: Formulation of the research questionnaire.

		Current perceptions		Focus group - questions	3	Preferred perceptions or/		Focus group - questions
						needs change		
1	Overall satisfaction	How would you evaluate	Very Satisfied					
		the overall academic experience so far	Satisfied					
			Neutral					
			Dissatisfied					
			Very Dissatisfied					
2	Relationship Domain	In your current learning experience, which as per	Teacher support	Enquiry on why that factor has been	3	Choose a category which needs better planning to	teacher support	
		you has been the most	Student support	influential		support your learning	student support	
		influential factor for your success	Self motivation				self motivation	Enquiry on what is withing the facor is not working for them
4	Personal development domain	In your current learning experience which factor	Ability to self explore abd investigate	How has it helped you on the persoanl	5	Pick a category that as per you has the least impact	Ability to self explore abd investigate	Why has it been the least crucial in your persoan!
	uomam	has played a crucial role in your personal	Pursuit to achive high grades	development		on your personal development	Pursuit to achive high grades	development
		development	Experienced of working				Experienced of working	
			and learning from your peers.				and learning from your peers.	
6	Equity	Do you agree with the	Strongly Agree	Explore on student	7	Do you agree with the	Strongly Agree	explore on student
	t i	statement, with regards to class balance and impartiality "My teacher has fair rules for the class."	Agree	experinces with teacher neurrality and its impact on their learning		statement: "My teachers double checks with each, if	Agree	experinces with teacher neurrality and its impact on
			Neutral			the class content is clear and resolves all doubts "	Neutral	their learning
			Disagree			and resolves all doubts"	Disagree	
			Strongly Disagree				Strongly Disagree	
8	Student cohesiveness	Do you have supportive	or one y or one				on on Bit Disagree	
		classmates?	Yes, extremely supportive					
			They are neither					
			They are neither supportive nor					
			They are neither supportive nor unsupportive	How has that impacted				
			They are neither supportive nor	How has that impacted your learning experience				
9	Investigaton (Curiosity	What motivates you to	They are neither supportive nor unsupportive No, extremely					
9	Investigaton (Curiosity driven)	What motivates you to learn more?	They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and					
9			They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions					
9			They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and					
9			They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself					
9			They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself High grades					
9			They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself					
		learn more?	They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself High grades Appreciation from faculty and peers Securing high grades					
	driven)	learn more? What are some achievements you are	They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself High grades Appreciation from faculty and peers Securing high grades Achieving all your set					
	driven)	learn more?	They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself High grades Appreciation from faculty and peers Securing high grades					
	driven)	learn more? What are some achievements you are	They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself High grades Appreciation from faculty and peers Securing high grades Achieving all your set goals; personal and					
10	driven) Task orientation	What are some achievements you are proud of	They are neither supportive nor unsupportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself High grades Achieving all your set goals; personal and academic	your learning experience				
10	driven)	What are some achievements you are proud of	They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself High grades Appreciation from faculty and peers Securing high grades Achieving all your set goals; personal and academic Completing all	your learning experience				
10	driven) Task orientation	What are some achievements you are proud of	They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself High grades Appreciation from faculty and peers Securing high grades Achieving all your set goals; personal and academic Completing all assignments on time Yes, all the time	Any inputs on how you would like to change that or narratives on an				
10	driven) Task orientation	What are some achievements you are proud of Does your teacher encourage you to	They are neither supportive nor unsupportive No, extremely unsupportive Asking a lot of questions to the teacher and getting the response Self motivations to explore ideas by yourself High grades Appreciation from faculty and peers Securing high grades Achieving all your set goals; personal and academic Completing all assignments on time	your learning experience Any inputs on how you would like to change that				

Understanding student expectation of the psychosocial learning environment The purpose of this questionnaire is to find out your opinions about your overall academic experience. This questionnaire is designed to gather opinions about classes and will be used for academic research purpose only. Please select the most appropriate statement / category that best suits the question. Course * O UG Interior Design O PG Interior Design Gender * Female Male How would you rate the overall academic experience so far * O Very Satisfied Satisfied Neutral Dissatisfied Very Dissatisfied In your current learning experience, which as per you has been the most influential factor for your success * O Teacher support Student support Self motivation Choose a category which needs better planning to support your learning * Teacher support Student support Self motivation

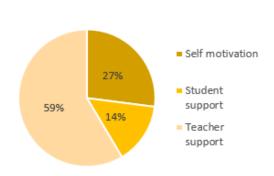
SZUZI I COLI ACOUCILIY

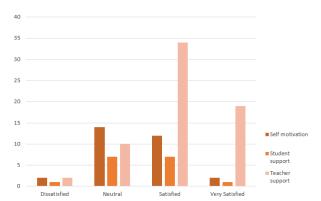
In your current learning experience which factor has played a crucial role in your personal development *
Ability to self explore and investigate
O Pursuit to achieve high grades
Experience of working with and learning from your peers
Do you agree with the statement, with regards to class balance and impartiality "My teacher has fair rules for the class." *
○ Strongly Agree
Agree
○ Neutral
○ Disagree
○ Strongly Disagree
Do you agree with the statement: "My teachers double checks with each, if the class content is clear and resolves all doubts " *
○ Strongly Agree
Agree
○ Neutral
○ Disagree
○ Strongly Disagree
Do you have supportive classmates? *
Yes, extremely supportive
They are neither supportive nor unsupportive
No, extremely unsupportive
No, extremely unsupportive
No, extremely unsupportive What motivates you to learn more? *
What motivates you to learn more? *
What motivates you to learn more? * Getting encouraging response, when you ask a lot of questions.
What motivates you to learn more? * Getting encouraging response, when you ask a lot of questions. Self motivation- to explore ideas by yourself

Agree
○ Neutral
Disagree
○ Strongly Disagree
Does your teacher encourage you to perform better? *
Yes, all the time
Only sometimes
No, not at all

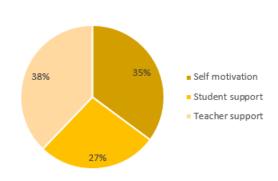
Annexure 4: Quantitative research findings

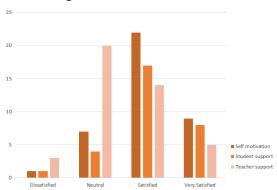
The most influential factor for your success



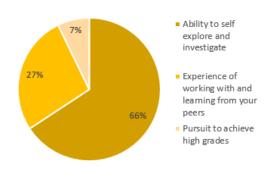


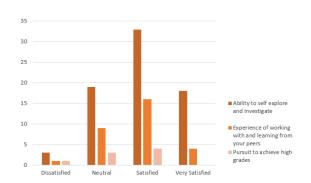
The factor that needs better planning to support your learning



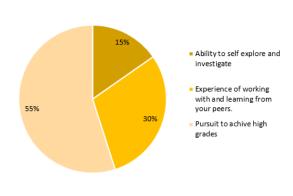


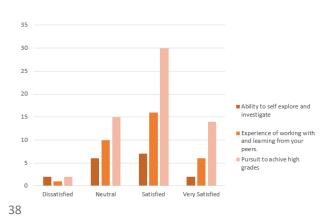
Which factor has played a crucial role in your personal development?





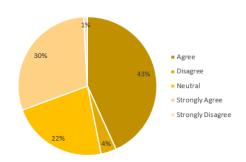
The factor with the least impact on your personal development

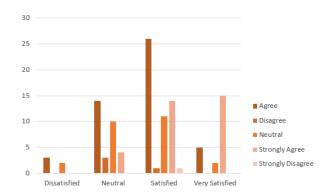




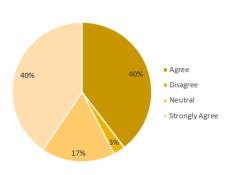
©2021 Pearl Academy

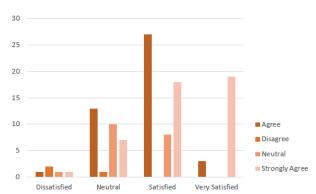
"My teacher has fair rules for the class."



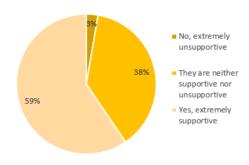


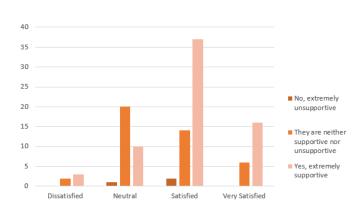
"My teacher's double checks with each, if the class content is clear and resolves all doubts"



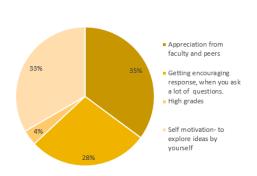


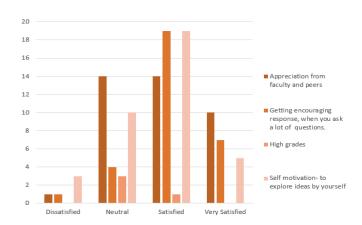
Do you have supportive classmates?



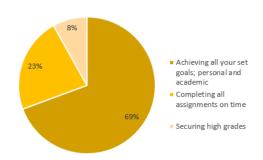


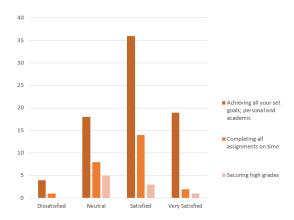
What motivates you to learn more?



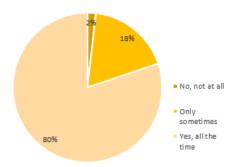


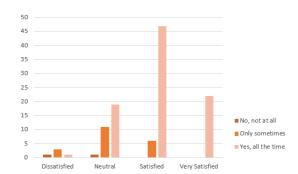
What are some achievements you are proud of?





Does your teacher encourage you to perform better?





A total of 3 focus groups were conducted as per the details below. focus group questions and points of discussion were broadly based on the overall findings from the quantitative research. (see annexure 2 for question formulation

	Date when conducted	Number of students	Mode of conduct	Recoring Links
Focus group 1	28 09 21	8	Zoom	https://gusindia01- my.sharepoint.com/:fr/g/personal/manasee kakkad pearlaca demy_com /Eq8egm_dK59KvDZRvpLeBhgBE1QinW0RCpc42XUpKcbhxQ?
Focus group 2	29 09 21	9	Zoom	e=rCdMZ <u>p</u>
Focus group 3	29 09 21	16	Zoom	

Focus Group 1 – Key statements and quotes

- Teacher and student is a two-way relationship, a teacher needs to be motivated for a student to be motivated. And I have noticed when I was motivated I had my teachers' full interest.
- We subconsciously restricted student support group work, maybe it was the pandemic. It was also the over availability of teachers. We noticed they were available beyond classroom hours in an online environment. Which made us reach out to them as against our peers.
- Student support now in hindsight we feel is crucial, we lost out on it due to the pandemic
- I get motivated to perform better when there is constructive and healthy competition in class.
- Self-motivation is extremely important and is an important aspect of the learning environment the lack of motivation can adversely affect the teacher and student and negatively impact the classroom environment.
- More than grades it is about appreciation of our work
- Awards like Jury or design competitions matter more than grades and are great motivators
- Especially in a design field, grades do not matter as the design is subjective, but high grades sometimes motivate you to work better

Focus Group 2 – Key statements and quotes

- Self-motivation and appreciation are two factors that can get us going.
- Constructive criticism also helps as motivation.
- Teachers' energy and patience play a crucial role in the classroom environment.
- An easy stress-free relationship with the teacher eases the pressure and helps performance.
- Comfort, trust dependability on teachers are crucial factors of a classroom environment.
- Pandemic impacted their learning environment, but we noticed everyone was there to help.

- The Group discussed student support to have a negative when there are targets and assessments attached. For example, if they are working on a group project, not always all expectations match leading to an unhealthy environment
- Expectations from peers can lead to disappointments
- For student support and peer learning number of students matter less. They found peer learning ineffective in small groups
- Ideas of interactions across campuses and student support were welcomed
- Lost on student-student relations due to the pandemic and did not explore the online environment for peer support
- The student-teacher relationship is the crux of the classroom environment from the student perspective
- Students did not capitalize on the peer learning due to tp pandemic and relied on the teacher for all inputs and support.

Focus Group 3 – Key statements and quotes

- Teacher and student relationship is extremely crucial
- We depend on the teacher to help us through everything, the group reflected on is that the right approach and by the end mentioned that they needed to reach to peers for holistic learning.
- High grades may not be important, but low grades do demotivate.
- Especially during the pandemic, encouragement from teachers was highly appreciated and much required.
- Class equality is very important. One student specifically said how it takes a personal toll if there is class bias.
- Comfort and trust with the teacher are important, it helps give them confidence to reach out for help and support without hesitation.
- Students prefer physical face-to-face classes, the physical presence makes it easy to manage emotions and expectations.
- Online synchronous classes give a feeling of isolation
- The feeling of learning community is missing in an online space as there is little or no
 interaction with the peers' post-class or group work. The group reflected on how they need
 to work to establish the same and suggested the classroom environment to support and
 initiate such interactions.