

The Influence of Peer Relations on The Learning Environment Among Higher Secondary Students

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Abstract—Peer relations refer to the social interactions and connections that individuals have with their peers or classmates. These relationships play a crucial role in shaping the learning environment and academic achievement of Higher Secondary students. Peer relations during adolescence have been widely recognized as significant factors that can shape the educational experiences and outcomes of students.

Index Terms—Peer relations, Peer influence, Learning Environment, Higher Secondary students.

I. INTRODUCTION

The influence of peer relationships on the learning environment of Higher Secondary students holds significant importance in the educational landscape. As individuals progress through their academic journey, their interactions with peers become increasingly influential in shaping their socio-emotional development, cognitive growth, and overall educational experience. Peer relationships play a crucial role in creating a conducive learning environment, fostering motivation and self-confidence, and ultimately impacting students' academic achievement. Thus, understanding and exploring the multifaceted dynamics of peer relationships in the context of higher secondary education is imperative for educators, parents, and policymakers to effectively support students' holistic development and promote optimal educational outcomes. This paper aims to delve into the various facets of peer relationships and their impact on the learning of higher secondary students, highlighting the importance of fostering positive, supportive, and inclusive peer relationships within this context.

1.1 Peer Relations

Peer acceptance represents social status or popularity within a large group, whereas friendships represent relationships based on mutual respect, appreciation, and liking. Peers serve many important roles in the life of a child. From toddlerhood through adolescence, peers serve to meet the child's need for acceptance and belonging. They provide valuable messages regarding the child's socialization informing the child, through words and actions, which behaviours are acceptable and which are not. Peers serve to provide children a source of support in times of difficulty or stress, they share in times of joy and excitement, and they participate in learning activities providing motivation and competition. Therefore, powerful impact of the peer group on a child's healthy growth, development and socialization cannot be ignored.

1.2 Peer Relations at Higher Secondary School Level

During the period of Higher Secondary School, the peer group tend to face dramatic changes. Higher Secondary School Students, tend to spend more time with their peers and have less adult supervision. Student's communication shifts during this time as well. They prefer to talk about school and their careers with their parents, and they enjoy talking about sex and other interpersonal relationship with their peers. Children look to join peer group who accept them, even if the group is involved in negative activities. Children are less likely to accept those who are different from them.

There are several specific reasons why people give into peer relations. Sometimes it is simply out of curiosity, Individuals will do something others suggest to find out if it is as fun and exciting as everyone else

is making it out be. Families that are dysfunctional and lack a clear set of guidelines or belief structures may produce children who are more likely to seek out a social group that provides structure and guidelines. Most of the time, however, the overwhelming need to be accepted among those in the same age or social groups what causes individuals to give into peer pressure, whether it is positive or negative.

1.3 Learning Environment

A learning environment is more than just a classroom it's a space in which students feel safe and supported in their pursuit of knowledge, as well as inspired by their surroundings. A learning environment is a place where learners feel comfortable, encouraged and inspired by their surroundings. Different environments influence a student's relationships, resources, time and control over their learning. Instructors can also influence a learning environment by the way they teach and the atmosphere they create in the classroom. They can help influence student learning by encouraging student engagement, providing positive and constructive feedback that supports exploration, community among peers, and diversity. As students continue to grow and evolve as learners, so, too, do the environments in which they learn. Learning environments have changed over time and can continue to expand to meet student needs, allowing teachers to continually optimize their learning environment to help students meet their educational goals. Here are some aspects of the learning environment that are influenced by peer relationships: Classroom climate, Collaboration and teamwork, Peer tutoring and mentoring, social support, Academic motivation, Peer pressure, Sense of belonging and Diversity and respect.

II. REVIEW OF LITERATURE

Wang, Ming-Te., Holcombe, Rebecca, (2010) studied adolescents' perceptions of school environment, engagement, and Academic achievement in middle school. Participants were from a representative, ethnically diverse, urban sample of 1,046 students. Finally, the authors found that students' perceptions of school environment influenced their academic achievement directly and indirectly through the three types of school engagement. Specifically, students' perceptions of school characteristics in seventh grade

influenced their school participation, identification with school, and use of self-regulation strategies in eighth grade that occur therein and, in turn, influenced students' academic achievement in eighth grade.

Shao, Y., Kang, S., Lu, Q. et al. (2024) investigated how peer relationships affect junior high school students' academic achievement through the chain mediating roles of learning motivation and learning engagement, employing the self-system model of motivational development as the theoretical framework. In January 2024, 717 participants were selected from two middle schools in eastern China (mean age = 13.49 years, SD = 0.5). The data analysis in this study was performed using the structural equation model (SEM) in AMOS 24.0 and SPSS 24.0. The results showed that peer relationships were directly and significantly related to junior high school students' academic achievement, and that peer relationships were indirectly and positively related to junior high school students' academic achievement via learning motivation and learning engagement respectively. The results also revealed a significant indirect and positive relationship between peer relationships and junior high school students' academic achievement, mediated by the sequential mediating roles of learning motivation and learning engagement

III. NEED AND SIGNIFICANCE OF THE STUDY

This study aims to identify the multidimensional ways in which peer relations impact the learning environment of Higher Secondary students. Factors such as school climate, teacher-student relationships, and school social hierarchy are explored to better understand their influence on peer dynamics and subsequent academic outcomes. This thematic paper emphasizes the need for educators and policymakers to recognize the significance of peer relationships in creating an optimal learning environment for Higher Secondary students.

Objective of the Study: -

The objective of the present study is

- To find the levels of Peer Relations and Learning Environment with its dimension Physical Environment, Emotional Environment and

Psychological Environment among the higher secondary students.

- To find whether there is any significant correlation among the Peer Relations and Learning environment among higher secondary students.

Hypothesis of the Study

1. The level of Peer Relations among Higher Secondary Students is moderate in nature.
2. The level of Learning Environment along with its dimensions namely Physical, Emotional and Psychological among Higher Secondary Students is moderate in nature.
3. There is no significant Correlation between Peer Relations and Learning Environment with its dimensions among Higher Secondary Students.

IV. METHODOLOGY AND STATISTICAL TECHNIQUES USED

The sample consists of 800 Higher Secondary Students from different types of school from Chennai Educational districts. Stratified Random Technique was used as a sampling Technique. In the present study Differential analysis and Correlation analysis has been used to analyse the data.

4.1 Tools Used

The Peer Relations scale was developed by Dr. S. Devasahayam Selvakumar and the Investigator (2019) with a series of straightforward statements, seeking description about the feeling towards those people who may be included in one's own peer group. It consists of 30 statements, each item demanding responses through any of the 4 options: (4) Very Often, (3) Pretty Often, (2) Once in a While and (1) Never.

The Learning Environment questionnaire constructed and validated by the investigator and Dr. S. Karthiyayini (2021) presents a series of straightforward statements, seeking description about the learning environment based on Physical Environment, Emotional and Psychological Environment). It's a self-reporting test. Each statement of the scale has five alternative response categories according to the experience of the respondent which includes 'Almost Never', 'Once in a while', 'Sometimes', 'Frequently' and 'Almost Always'.

V. RELIABILITY AND VALIDITY OF THE TOOLS USED

Peer Relations Scale

Reliability

The reliability of Peer relations scale is obtained by test-retest method and it is equal to (0.83), indicating that the tool is highly reliable.

Validity

The index of validity, which is the square root of reliability and it was found to be (0.91), indicating that peer relations scale is highly valid.

Learning Environment Questionnaire

Reliability

The Learning Environment questionnaire has been validated by the investigator with help of co-efficient of reliability, adopting Cornbach's Alpha method. The reliability of Learning Environment questionnaire was found to be 0.865 which is highly reliable.

Validity

The validity of the questionnaire has been established by taking the index of the reliability (Square root of the reliability co- efficient). It was found to be 0.930 which is highly significant.

VI. ANALYSIS AND INTERPRETATION

Hypothesis 1:

The level of Peer Relations among Higher Secondary students is Moderate in Nature.

The Range, Frequency and Percentage were calculated for Peer Relations among Higher Secondary Students with respect to Entire Sample and the result of the same are summarized in the following Table 1.

Table 1: Range, Frequency and Percentage of Peer Relations among Higher Secondary Students with respect to Entire Sample

Variables	Range	Category	Frequency	Percentage
Overall, Peer Relations	77 - 83	Low	111	13.9 %
	84 - 88	Moderate	548	68.5 %
	89 - 120	High	141	17.6 %

The analysis of overall peer relations shows that the majority of students (68.5%) fall under the moderate category indicating that most of them are able to maintain average levels of interaction, cooperation and

bonding with their peers. A notable proportion (17.6%) of students demonstrate high peer relations suggesting that they possess strong interpersonal skills, enjoy positive friendships and actively engage in group activities. On the other hand, 13.9% of students fall in the low category reflecting challenges in building or sustaining peer relationships.

Hypothesis 2:

The level of Learning Environment along with its dimensions namely Physical, Emotional and Psychological among Higher Secondary Students is moderate in nature.

The Range, Frequency and Percentage were calculated for Learning Environment along with its dimensions among Higher Secondary Students with respect to the Entire Sample and the result of the same are summarized in the following Table 2.

Table 2: Mean SD and Mean Percentage of Learning Environment along with its dimensions namely Physical, Emotional and Psychological among Higher Secondary Students with respect to Entire sample

Variables	Range	Category	Frequency	Percentage
Physical	10-27	Low	187	23.4%
	28-40	Moderate	416	52.0%
	44-50	High	197	24.6%
Emotional	10-23	Low	137	17.1%
	24-33	Moderate	489	61.1%
	34-50	High	174	21.8%
Psychological.	10-28	Low	137	17.1%
	29-38	Moderate	490	61.3%
	39-50	High	173	21.6%
Overall Learning Environment	30-84	Low	142	17.8%
	85-118	Moderate	483	60.4%
	119-150	High	175	21.9%

Physical Environment: A majority of students (52.0%) perceive their physical environment as moderate, while 24.6% report a high perception and 23.4% a low one. This indicates that most students are moderately satisfied with classroom facilities, infrastructure, and physical arrangements though a considerable group still finds it inadequate.

Emotional Environment: Most students (61.1%) rate the emotional environment as moderate, followed by 21.8% at high, and 17.1% at low levels. This suggests that while the emotional climate (teacher–student relationship, peer support, encouragement, sense of belonging) is reasonably positive only a minority find it highly supportive.

Psychological Environment: Similar to the emotional domain, 61.3% fall in the moderate range, with 21.6% high and 17.1% low. This reflects that psychological safety, mental comfort and a stress-free atmosphere are moderately ensured but more effort is needed to strengthen this area.

Overall Learning Environment: A large proportion (60.4%) experience a moderate overall learning environment while 21.9% perceive it as high, and 17.8% as low. This indicates that the general classroom climate is fairly balanced but only a smaller section perceives it as highly conducive to learning.

Hypothesis 3:

There is no significant correlation between Peer Relations and Learning Environment and its dimensions among Higher Secondary Students

Correlation was calculated to find out the relationship between Peer Relations and Learning Environment and its dimensions among Higher Secondary Students and the same are presented in the Table 3.

Table 3: Correlation between Peer Relations and Learning Environment and its dimensions among Higher Secondary Students

Variables	Physical	Emotional	Psychological	Overall Learning Environment
Peer Relations	.038	.061	.060	.058

The correlations between Peer Relations and the dimensions of Learning Environment are very weak and positive (.038 to .061) and likely not significant. Peer relations have a minimal association with students' perception of the physical, emotional and psychological aspects of the learning environment. This suggests that the quality of peer interactions does not strongly influence how students experience or evaluate their overall learning environment.

VII. FINDINGS

- The results indicate that most students maintain moderately positive peer relations, though not all share strong bonds. A small portion (13.9%) show low peer relations, possibly due to shyness or limited social skills, while 17.6% demonstrate strong, well-adjusted friendships. Overall, promoting teamwork, counseling, and social skill programs can further strengthen peer connections.
- The school system provides a reasonably supportive environment across physical, emotional and psychological aspects but it is not yet optimal.
- The presence of low scorers (about 17–23%) signals that certain students may face challenges such as inadequate infrastructure, lack of emotional support or stress-related barriers which could hinder their learning outcomes.
- The moderate majority shows that while basic needs are being met, there is scope for improvement in creating a more stimulating, supportive and holistic learning environment that promotes student well-being and academic success.
- Peer relations are largely shaped by personal factors (such as personality, social skills, Emotional Intelligence and interests) and social dynamics (friendship groups, shared activities, classroom interactions). The negligible correlations suggest that the learning environment (physical, emotional or psychological) does not play a major role in influencing how students relate with peers in this sample. In other words, while a supportive learning environment is important for academic and emotional growth, peer bonding is more dependent on interpersonal compatibility and social opportunities rather than institutional conditions.

VIII. EDUCATIONAL IMPLICATIONS

- Inculcate classroom culture where students feel accepted and participate widely.
- Encourage collaboration among students for group activities, projects or peer-tutoring, building positive relationships with other peers.
- Teach students about positive peer pressure and how it can be used to encourage academic success.
- A well-equipped and attractive physical space, with features comfortable to improve academic performance.
- Use technology to enrich the learning experience and provide co-curricular activities

IX. CONCLUSION

Positive peer relationships can create a supportive and collaborative learning environment, where students feel motivated and encouraged to excel academically. This fosters critical thinking skills and helps students gain a deeper understanding of the subject matter. To ensure a positive influence of peer relationships on the learning environment of Higher Secondary students, it is crucial for educators, parents, and the community to actively promote healthy peer interactions. Schools should focus on fostering a positive school culture and providing opportunities for students to develop strong, supportive friendships, enabling students to navigate and overcome negative peer influences.

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