

A Study on Effect on Inter Personal Relationship in Online Classroom Environment

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Abstract:- The social and academic development of students is significantly influenced by interpersonal relationships between peers and with teachers. The use of online teaching has been happening gradually in the educational system. The Covid-19 pandemic, however, pushed schools and institutions to switch entirely to an online style of instruction. The goal of this study is to better understand how interpersonal relationships between students and instructors in an online classroom environment are affected. The data was collected through a questionnaire circulated among university and collegestudents in Chennai and further was analysed using percentage analysis and pie charts. Findings showed that the students found it hard to bond/get to know their professors and peers and did not receive individual attention as well as feedback on their performances and activities from their professors. The students also found it hard to spend time with their peers after class hours. Based on these findings suitable suggestions were given.

Keywords:- Interpersonal relationship, online classroom environment, students, professors

I. INTRODUCTION

Interpersonal relationship refers to the social association, relationship, or a strong bond between two or more people. As individuals get to know each other and get attached, interpersonal relationship is formed. Transparency, mutual trust and respect, common goals and attachment is a must for an interpersonal relationship. Family relationships, friendship, marriage, relationships with associates, etc, are all examples of context.

Peer relationships give children the opportunity to learn a variety of important skills such as social-emotional, problem-solving skills, etc. Peer relationships can also prove to have a negative impact on social emotional development in the cases of bullying, exclusion, etc. Creating an environment that encourages and supports social-emotional development and academic learning, requires the need to foster positive relationship among peers in the classroom. This shows the very significance of peer relationships. Improving students' relationships with teachers also has an important role to play on both their social and academic development. Students found to have close, positive, and supportive relationships with their teachers tend to outperform those who have more conflict in their relationships.

A. Online education (with reference to the Covid-19 pandemic)

The education industry was one among the many hardest hit by the Covid19 pandemic. As schools, colleges and universities scrambled to find ways to keep their doors open, Online learning tools proved to be a boon in these trying times. But with a sudden shift from an offline to online classroom environment, a lot of adjustments and changes had to be made by both the teachers/professors and students along with the given circumstances at the time. The Edu Tech system in the online learning segment was relatively young and had numerous flaws and even so grew by leaps and bounds. The system is rapidly changing and evolving, and it will soon become the norm in the education industry. The online education world has numerous advantages and will make education more affordable and widely available. Fixed curriculums and rigid subject choices are no longer acceptable as a new generation of students demands greater flexibility in their education. This indicating that online learning will be in demand and flourish in the upcoming future as well. Along with the many advantages, online education offers a set of demerits too. With the rapid changes and shifts being made in the classroom environment, effects on various factors in relation to students and teachers need to be studied.

B. Advantage And Disadvantages of Virtual/Online Classes

Students prefer classroom classes over online classes due to the numerous issues they encounter when taking online classes, such as a lack of motivation, a lack of understanding of the material, a decrease in communication levels between students and instructors, and a sense of isolation caused by online classes. Virtual education, also known as computer-mediated communication (CMC), alters how professors and students interact, form relationships, are influenced by others, and manage diminished social cues.

Traditional face-to-face classrooms can foster positive and inclusive learning cultures, promote open communication, and allow students to connect with their peers before, during, and after class meetings. Virtual education, like traditional face-to-face education, can create and build classroom culture. Synchronous virtual education can provide a space for students to develop social presence and encourage self-disclosure in order to foster positive, supportive classroom cultures.

II. OBJECTIVES OF THE STUDY

- To find out the effect on interpersonal relationship between students and professors in online classroom environment.
- To study the effect on interpersonal relationship among students in online classroom environment.
- To find the problems faced by students during online teaching.

III. SIGNIFICANCE OF THE STUDY

Online learning has grown a lot with the collaboration of internet and education providing people with the opportunity to learn new skills and acquire knowledge on various fields. The COVID19 outbreak led to adopting of the online classroom environment in all educational and other concerned institutions. Because of the pandemic, schools, universities, colleges, and businesses were forced to work remotely, which increased the use of online learning. Relationships among the students and with their professors/teachers, having a significant role to play on the

students' academic and social development, needs to be paid attention to along with the changes in the classroom environment.

The study aims to find out the effects online classroom environment has on the interpersonal relationship between students and with their professors/teachers and provides suggestions on ways to deal with these effects/issues.

IV. RESEARCH DESIGN

This study aims to find out the effects on interpersonal relationship in an online classroom environment. In order to understand this, a questionnaire was prepared and circulated among university and college students in Chennai, not restricted to a particular field of study, college, and university.

Information gathered from the questionnaire was then analysed and the outcome was used for the findings and suggestions part of the study.

Table 1: Research Design

Sample	University and college students in Chennai
Sample size	100
Source of data	Primary data
Data collection technique	Questionnaire
Data analysis	Percentage analysis and One sample t-test
Sampling technique	Convenience sampling

V. LIMITATIONS

- The research is limited only to the city of Chennai and is not wide spread to other geographical locations of the country.
- Difficulty in getting a huge number of responses, restricting it to 100 responses.
- The study is conducted from the point of view of students alone with regards to the student-teacher/professor relationship.

VI. REVIEW OF LITERATURE

According to **Cheryl S. Spivey (1985)**, interpersonal interactions skills are an essential ingredient to a better student-teacher relationship. Sharing personal experiences fosters mutual trust and respect, two essential components of any relationship. These interpersonal interactions assist teachers in becoming far more effective in the classroom.

- **Eric Zhi Feng Lin (2015)**, In a study it was found that the interaction between teachers and students has a significant impact on students' learning performance. Students who had a high level of teacher-student interaction outperformed those who had a low level of teacher-student interaction.
- **Eric Zhi Feng Lin (2015)**, To develop online education, some lessons from the traditional teaching model in maintaining a close and intimate teacher-student relationship must be drawn.

- **Maunder(2017)**, Students who reported strong attachment to their peers had higher levels of adjustment to university life and attachment to their university. Students who reported difficulties with other students' relationships had lower levels of peer attachment and university adjustment. The study emphasises the role of social relationships in institutional belonging, as well as the importance of nurturing peer relationships and institutional affiliation in order to create a positive student experience.
- **Collins (2017)**, Close relationships can protect and improve health in a variety of ways. Relationships can also promote health by promoting exploration, personal growth, and goal achievement, all of which are essential for overall health and well-being. Because humans have an inherent desire for attachment and belonging, people thrive when they feel intimately connected to significant persons.
- **Wissing et.al.(2022)**, emphasises the importance of peer relationships in the educational context, as the findings show that both the size of the peer network and perceived peer support protect medical students' education satisfaction and study engagement when faced with study demands, such as forced online education during the COVID-19 pandemic. These findings could lead to educational initiatives that promote collaborative learning and the formation of formal peer networks.

- **Carvalhais (2022)**, Teachers should be encouraged to establish a social presence and connect with students as educational practises evolve to accommodate online teaching and other technology-mediated teaching

strategies as prompted by the COVID-19 pandemic, thus contributing not only to their own quality of life but also to the overall development of their students.

VII. DATA ANALYSIS

Table 2: Percentage Analysis - Demographic profile of respondents

	Respondent's	Frequency	Percentage	Cumulative Percentage
Gender	Male	58	58%	58%
	Female	42	42%	100%
Age Group	Below 19 years	12	12%	12%
	19-21 years	60	60%	72%
	Above 21 years	28	28%	100%
Field of Study	Arts	8	8%	8%
	Science	25	25%	33%
	Commerce	17	17%	50%
	Engineering	35	35%	85%
	Others	15	15%	100%
Degree Level	UG	75	75%	75%
	PG	25	25%	100%

➤ *Data Inference:*

- In the above data, 58% of the respondents are male and the remaining 42% of the respondents are female.
- In the above data, 12% of the respondents are below the age of 19 years, 60% of the respondents are in the age range of 19 to 21 years and the remaining 28% are above 21 years.

- In the above data, 8% of the respondents are pursuing studies in the field of arts, 25% in the field of science, 17% in the field of commerce, 35% in the field of engineering and the rest 15% opted for others.
- In the above data, 75% of the respondents are pursuing their undergraduate (UG) degree and the rest 25% are pursuing their post graduate degree (PG).

Table 3: Percentage Analysis - Interpersonal Relationship Between Professors and Students

	Scale	Frequency	Percentage	Cumulative Percentage
Interaction with the professors in the online classroom environment	Strongly Agree	8	8%	8%
	Agree	25	25%	33%
	Neither Agree nor Disagree	36	36%	69%
	Disagree	22	22%	91%
	Strongly Disagree	9	9%	100%
Convenience of asking doubts and quarries	Strongly Agree	7	7%	7%
	Agree	37	37%	44%
	Neither Agree nor Disagree	21	21%	65%
	Disagree	27	27%	92%
	Strongly Disagree	8	8%	100%
Professor availability after class	Strongly Agree	12	12%	12%
	Agree	44	44%	56%
	Neither Agree nor Disagree	20	20%	76%
	Disagree	20	20%	96%
	Strongly Disagree	4	4%	100%
Conveying Opinion	Strongly Agree	11	11%	11%
	Agree	43	43%	54%
	Neither Agree nor Disagree	22	22%	76%
	Disagree	19	19%	95%
	Strongly Disagree	5	5%	100%
Individual feedback from their professors on their activities and performance	Strongly Agree	8	8%	8%
	Agree	26	26%	34%
	Neither Agree nor Disagree	23	23%	57%
	Disagree	29	29%	86%
	Strongly Disagree	14	14%	100%
Getting equal and individual attention from their professors	Strongly Agree	6	6%	6%
	Agree	23	23%	29%
	Neither Agree nor Disagree	27	27%	56%

	Disagree	30	30%	86%
	Strongly Disagree	14	14%	100%
Bond/connect with your professors	Strongly Agree	8	8%	8%
	Agree	20	20%	28%
	Neither Agree nor Disagree	29	29%	57%
	Disagree	29	29%	86%
	Strongly Disagree	14	14%	100%
Professors flexible in their mode of teaching and instruction	Strongly Agree	10	10%	10%
	Agree	39	39%	49%
	Neither Agree nor Disagree	31	31%	80%
	Disagree	11	11%	91%
	Strongly Disagree	9	9%	100%
professors understanding and considerate about the issues and difficulties arising out of the online classroom environment	Strongly Agree	10	10%	10%
	Agree	45	45%	55%
	Neither Agree nor Disagree	26	26%	81%
	Disagree	12	12%	93%
	Strongly Disagree	7	7%	100%

➤ *Data Inference*

- Nearly 8% strongly agree that they were comfortably able to interact with their professors in the online classroom environment, 25% agree, 36% neither agree nor disagree, 22% disagree and the rest 9% strongly disagree.
- 7% of the respondents strongly agree that it was convenient for them to ask their doubts and queries, 37% agree to it, 21% neither agree nor disagree, 27% disagree and the rest 8% strongly disagree to it.
- The above table show that 12% of the respondents strongly agree that they were able to contact their professors after class hours, 44% agree to it, 20% neither agree nor disagree, 20% disagree to it and the rest 4% strongly disagree to it.
- Nearly, 11% strongly agree that they were able to convey their opinions to their professors, 43% agree to it, 22% neither agree nor disagree, 19% disagree and the rest 5% strongly disagree to it.
- Nearly, 8% strongly agree that they were able to get individual feedback, 26% agree to it, 23% neither agree

nor disagree, 29% disagree to it and the rest 14% strongly disagree to it.

- In the above data, 6% of the respondents strongly agree that they were able to get equal and individual attention from the professors, 23% agree to it, 27% neither agree nor disagree, 30% disagree and the rest 14% strongly disagree to it.
- Nearly, 8% of the respondents strongly agree that they were able to bond with their professors, 20% agree to it, 29% neither agree nor disagree, 29% disagree to it and the rest 14% strongly disagree.
- In the above data, 10% of the respondents strongly agree that the professors were flexible in the mode of teaching and instruction, 39% agree to it, 31% neither agree nor disagree, 11% disagree and the rest 9% strongly disagree.
- Nearly, 10% of the respondents strongly agree that their professors were understanding and considerate about the issues and difficulties arising from the online classroom environment, 45% agree to it, 26% neither agree nor disagree, 12% disagree to it and the rest 7% strongly disagree to it.

Table 4: One sample t-test test to estimate the interpersonal relationship between student and professor

Test Value = 3 (Average of Likert Scale)				
	t	df	Sig. (2-tailed)	Mean Difference
Professor - Interaction	.093	99	.926	.010
Professor - Convenience of asking doubts and quarries	.717	99	.475	.080
Professor - Availability after class	3.761	99	.000	.400
Professor-Conveying Opinion	3.369	99	.001	.360
Professor-Individual feedback	-1.258	99	.211	-.150
Professor-Individual Attention	-2.025	99	.046	-.230
Professor-Bond and Connect	-1.815	99	.073	-.210
Professor -Flexible teaching in online modes	2.760	99	.007	.300
Professor - Considerate and understand student's online issues	3.703	99	.000	.390

Table 5: Percentage Analysis - Interpersonal Relationship Between Peers

	Scale	Frequency	Percentage	Cumulative Percentage
Communication -Able to interact with your peers considering the virtual classroom environment	Strongly Agree	9	9%	9%
	Agree	28	28%	37%
	Neither Agree nor Disagree	25	25%	62%
	Disagree	22	22%	84%
	Strongly Disagree	16	16%	100%
Support -Whether they able to get to know each other	Strongly Agree	6	6%	6%
	Agree	26	26%	32%
	Neither Agree nor Disagree	23	23%	55%
	Disagree	27	27%	82%
	Strongly Disagree	18	18%	100%
Flexibility - Spend time/talk with your peers after class hours	Strongly Agree	8	8%	8%
	Agree	30	30%	38%
	Neither Agree nor Disagree	23	23%	61%
	Disagree	23	23%	84%
	Strongly Disagree	16	16%	100%
Approachable -Able to get your peers help with your studies	Strongly Agree	7	7%	7%
	Agree	38	38%	45%
	Neither Agree nor Disagree	25	25%	70%
	Disagree	18	18%	88%
	Strongly Disagree	12	12%	100%
Coordination -Able to work well on group assignments together	Strongly Agree	9	9%	9%
	Agree	37	37%	46%
	Neither Agree nor Disagree	24	24%	70%
	Disagree	22	22%	92%
	Strongly Disagree	8	8%	100%
Brain Storming - Opinions, views and ideas heard and taken into consideration	Strongly Agree	8	8%	8%
	Agree	41	41%	49%
	Neither Agree nor Disagree	36	36%	85%
	Disagree	11	11%	96%
	Strongly Disagree	4	4%	100%
Conflict Management - Able to solve conflicts/problem	Strongly Agree	9	9%	9%
	Agree	36	36%	45%
	Neither Agree nor Disagree	37	37%	82%
	Disagree	14	14%	96%
	Strongly Disagree	4	4%	100%
Empathy - There a sense of empathy among your peers	Strongly Agree	8	8%	8%
	Agree	37	37%	45%
	Neither Agree nor Disagree	40	40%	85%
	Disagree	10	10%	95%
	Strongly Disagree	5	5%	100%

➤ Data Inference

- In the above data, 9% strongly agree that they were able to interact with their peers, 28% agree to it, 25% neither agree nor disagree, 22% disagree to it and the rest 16% strongly disagree.
- In the above data, 6% of the respondents strongly agree that they were able to get to know each other, 26% agree to it, 23% neither agree nor disagree, 27% disagree to it and the rest 18% strongly disagree.
- In the above data, 8% strongly agree that they were able to spend time with their peers after class hours, 30% agree to it, 23% neither agree nor disagree, 16% strongly disagree.
- In the above data, 7% strongly agree that they were able to get help from their peers with regards to their studies, 38% agree to it, 25% neither agree nor disagree, 18% disagree to it and the rest 12% strongly disagree.
- In the above data, 9% of the respondents strongly agree that they were able to work well on group assignments with their peers, 37% agree to it, 24% neither agree nor disagree, 22% disagree and the rest 8% strongly disagree.
- In the above data, 8% strongly agree that their opinions and views were heard and taken into consideration, 41% agree to it, 36% neither agree nor disagree, 11% disagree and the rest 4% strongly disagree to it.
- In the above data, 9% strongly agree that they were able to solve conflicts/problems, 36% agree to it, 37% neither agree nor disagree, 14% disagree to it and the rest 4% strongly disagree.
- In the above data, 5% strongly agree that there was a sense of empathy among their peers, 37% agree to it, 40% neither agree nor disagree, 10% disagree to it and the rest strongly disagree.

Table 6: One sample t-test test to estimate the interpersonal relationship between students and peers

Test Value = 3 (Average of Likert Scale)				
	t	df	Sig. (2-tailed)	Mean Difference
Peers - Communication	-.651	99	.516	-.080
Peers - Support	-2.082	99	.040	-.250
Peers - Flexibility	-.736	99	.464	-.090
Peers - Approachable	.869	99	.387	.100
Peers - Coordination	1.518	99	.132	.170
Peers - Brain Stroming	4.088	99	.000	.380
Peers - Conflict Management	3.324	99	.001	.320
Peers - Empathy	3.498	99	.001	.330

VIII. FINDINGS

The following statements are the findings based on the data collected.

- Majority of the respondents are male, comprising of 58% of the total.
- Majority of the respondents fall in the age range of 19-21 years, that being 60% of the total.
- Most of the respondents are pursuing studies in the field of engineering, that being 35% of the total.
- Majority of the respondents are pursuing their Undergraduate (UG) degree.
- Findings related to interpersonal relationship between professors and students
- Most of the respondents have a neutral opinion (36%), that is they neither agree nor disagree on whether they were able to comfortably interact with their professors in the online classroom environment. Followed by this, 25% of the respondents agree to it and 22% disagree to it.
- Majority of the respondents (37%) agree that it was convenient for them to ask their doubts and queries.
- Majority of 44% of respondents agree that they were able to contact the professors after class hours.
- Majority of respondents (43%) agree that they were able to convey their opinions to their professors.
- Majority of respondents (29%) disagree and 14% strongly disagree on whether they were able to get individual feedback from their professors with regards to their activities and performance.
- Majority of 30% of respondents feel that they were not given equal and individual attention.
- Majority of respondents disagree (29%) and 14% strongly disagree on whether they were able to bond with their professors.
- Majority of respondents agree that the professors were flexible in their mode of teaching and instruction.
- A majority of 45% of respondents agree that the professors were understanding and considerate about the issues and problems arising out of the online classroom environment.
- Findings related to the interpersonal relationship between students
- Majority of 28% of respondents agree that they were able to interact with their peers considering the virtual classroom environment whereas 22% disagree to it.
- Majority of respondents disagree that they were able to get to know each other.
- While the total responses of the options strongly agree and agree sum up to 38%, indicating that they were able to spend time with their peers after class hours, an equally large proportion of respondents contradict the same (39% being the sum of responses of strongly disagree and disagree).
- Majority of respondents (38%) agree that they were able to get help from their peers with regards to their studies.
- 37% of respondents, that being the majority, agree that they were able to work well on their group assignments together.
- 41% of respondents agree that their opinions, views, and ideas were heard and taken into consideration.
- While 37% have a neutral opinion, 36% agree that they were able to solve conflicts/problems if any arose.
- While 40% neither agree nor disagree, 37% agree that there was a sense of empathy among their peers.

Problems found – Students are unable to bond with their professors and get individual feedback on their performance and activities. They find it hard to get to know their peers and spend time with them after class hours.

IX. SUGGESTIONS

Based on the above findings, following suggestions are derived.

- Interpersonal relationship between professors and students. Students can be asked to turn on their cameras for the classes which will make it more engaging for both the students and professors. At the same time, this might not work out for all the classes, due to the internet connection issues of students and disturbances in their background. So, a mix of off-screen and on-screen classes can be done every week.
- Lectures can be short or broken up into smaller segments and accordingly taught in each class. Doing so, there will be enough time to discuss and interact with the students.
- Just like classrooms, students can be called on to answer questions or share their opinions.

- At the end of the class, the lecturer could stay back for a few minutes so that students can clear their doubts if any. This being, if the students are not comfortable to ask their doubts in front of the others.
- A few classes or special classes can be scheduled, wherein the lecturer would try to revise the topics and help the students falling behind.
- The lecturers on correcting the answering scripts can immediately write short feedback about the student's performance either through the private chat message in the google classroom/any other application being used.
- At the end of each month or examination, professors can email the students giving them feedback about their activities and performance. This would be more personalised and encouraging for the students.
- Apart from the usual lectures, fun games can be conducted once in every week/every two weeks. A specific day can be assigned like during the weekends and games such as word search, quizzes, etc can be conducted. All this being in context of the subject point of view, allowing the classroom learning to be fun and engaging.
- Educational movies, lectures, videos can be played during few classes, where the students and professors can interact with each other, discussing different matters.

A. *Interpersonal relationship between students*

- In the beginning of the semester, there can be ice breakers done. This allows students to interact and get to know each other.
- Professors can incorporate group work as much as possible. They can try shuffling the students for every assignment. This pushes the students outside their comfort zone and allows everyone to mingle and get to know each other while learning. In short, fostering student-student relationships while deepening their learning.
- Student mentor programmes/study sessions for each semester can be conducted, where students will assist other students with their studies.
- The professors can put the students in groups and ask them to discuss on a certain matter/ case study and come out with a conclusion. They can have group assignments like role play, presentations, debates. Unlike offline classes, not many cultural events are held online. So, students can be asked to form groups and brainstorm on ideas followed by asking them to organise events. This gives them a chance to interact and get to know each other.

B. *Ways one can form relationship with their peers*

The students can also take steps to interact and bond with their classmates apart from the class hours. They can video call/ group video call each other, have study sessions through google meets, zoom, etc, watch movies together and use WhatsApp to have conversations with classmates. One can bond through other social media platforms too where they will be able to understand each other's interests, likes and dislikes and be able to find their friends group with similar interests.

X. CONCLUSION

To summarize, the study aimed to find out and understand the effect on interpersonal relationship in an online classroom environment. From the study majority of students did not have much issues with communication, empathy, conflict management, being heard and flexibility. The issue was in the area of support with professors and getting to know each other among students. Majority of the students did not receive individual attention and feedback from their professors, at the same time were not able to bond with their professors and peers.

The main aspect of bonding and getting to know each other was found to be lacking in an online classroom environment which is necessary for the development of interpersonal relationship among students and learners. To overcome these issues most of the points are highlighted in suggestion made in the study.

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