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### EFFECT OF PANDEMIC BASED ONLINE EDUCATION ON TEACHING AND LEARNING SYSTEMS

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**Keywords: Pandemic, Business Management, Questionnaire, Respondents**

#### ABSTRACT

##### *Objective:*

This research project aimed to analyze the effects of pandemic-based online education on learning and teaching systems. This research study was conducted to understand the impacts of COVID-19 on education, learning, and teaching systems. The questionnaire was made and filled out by the targeted audience. This research was conducted in Institute of Health and Business Management Jinnah Sindh Medical University Karachi-Pakistan.

##### *Background:*

COVID-19 pandemic has disturbed most sectors worldwide, including the educational arena that includes countless enrolled students and active professors who recently had physical classes within their institutions and got stuck in the home because of the outbreak. To maintain the education and learning process, on-line classes were started in the majority of the countries. With this method, learning and teaching happen via technology that is fairly new to the whole teaching and learning community.

##### *Methods:*

Likert Scale questionnaire was used in this research project. And the analysis was done by using Microsoft Excel. The popular size in this research study was 235. The data was collected

from students. After creating a questionnaire, the questionnaires were distributed to the targeted population. This research was aimed to understand how much the learners were satisfied with online classes and what problems they have faced during online classes in the time of the pandemic.

### **Results:**

The data was collected from 235 participants (learners/students). The study results have shown that the majority of respondents were satisfied with the online pandemic-based education on learning and teaching systems. But the results also showed that many of the respondents had faced a lot of problems during online education. Many respondents have to deal with internet problems and many other issues. And results have shown that the sudden transition from physical classes to online education was very difficult for students because they were not properly trained.

### **INTRODUCTION**

The worldwide outbreak of the COVID-19 has spread globally, disturbing virtually all areas and countries. The pandemic was initially recognized in Dec 2019 in China and Wuhan. The nations worldwide are warning the general public for taking responsive health care. The public health care methods include using face masks, hand washing, preventing mass assemblies and gathering, and physical distancing. Staying home methods and lockdown have been put in place as the necessary actions to flatten the curve and manage the transmission of the illness (Sintema, 2020). Bhutan 1st announced the closing of educational institutions and companies and a reduction of working hours in the 2nd week of Mar 2020 (Pokhrel and Chhetri, 2021). The countrywide lockdown was applied from August 1, 2020. Somewhere between, movements had been permitted, businesses started normal daily functioning, colleges and schools reopened for chosen levels, and proceeded with on-line classes for other students. Over 170,000 kids in Bhutan from classes are currently affected by the school closure (Palden, 2020).

The effect is a lot reaching, and it has seriously affected learning throughout this educational year or higher in the future. A number of colleges, universities, and schools have stopped face to face teaching. There's an important desire to implement and innovate other academic and evaluation techniques. The COVID-19 pandemic has given us a chance to create and introduce online digital learning (Dhawan, 2020). Research illustrates specific scarcity, for example, the weaknesses of online learning and teaching systems, the restricted exposure of course instructors to on-line teaching, the info-gap, non-conducive settings for learning in the home, educational quality, and equity with regards to higher education. This informative piece of content examines the effect of the COVID-19 outbreak on the learning and teaching process around the world. The difficulties and possibilities of on-line and ongoing education throughout the COVID-19 outbreak are described and way forward recommended (Kuikka et al., 2014).

Lock-down and public physical distancing actions because of the COVID-19 outbreak have resulted in closures of educational institutions, training institutions, and higher education amenities in many countries around the world.

The on-line learning, distance, and continuous teaching and learning became a panacea with this unrivaled worldwide outbreak, despite the problems posed to the students. Moving from typical face-to-face learning to online learning could be a completely different practical experience for the learners that they must get used to with hardly any other options available (Lashgari et al., 2011). The education and learning system and the students have followed "Education in Emergency" via different on-line systems and therefore are pressured to adopt a method that they're not ready for.

An unusual suspect known as SARS-CoV-2 (severe acute respiratory syndrome coronavirus-2) had induced a tough venture of the time from its origins to the present circumstances around the globe. The COVID-19 eventually affected our daily life-style and resulted in a new custom of life in the curbs to prevent the multiplication of this harmful virus as it's severely infectious. In accordance with UNESCO, after April 2020, 186 countries around the world have applied countrywide closures, which affect about 73.3 percent of the entire enrolled students. Consequently, the complete lockdown has led the academic institutions to turn to online procedures quickly to ensure continuity of studying in students as the conventional face-to-face study wasn't possible in this unrivaled situation (Sánchez-Cruz et al., 2021).

In developing nations standard learning procedures were broadly accepted before the breakthrough and dispersing of COVID-19. Although, the closing of institutions and pressure to finish the prescribed syllabus in a specified period according to the educational calendar forced the academic institutions to abandon their inquiries and follow emergency remote education and learning. On March 16, 2020, the central govt. declared the closure of all of the academic institutions such as colleges, schools, and universities because the number of positive cases of COVID in India has risen 114 to handle the distribution of coronavirus disease. The center has delivered instructions to all Chief Admin Assistants to promote on-line education and learning to cover the closure of the academic institutions as well as in favor of students in continuing the learning. Thus, after 2 to 3 weeks, a few educational institutions began online classes, and on May 30, virtually all institutions in the country started online classes (Mishra et al., 2020). It was the first-time online classes happened to be conducted on this vast scale in the country. The beginning of online classes resulted in different issues for both learning and teaching groups. However, the internet is a significant technological development, re-shaping universities and societies worldwide (Volery and Lord, 2000). The on-line learning environment can vary hugely from the normal classroom situation with regards to learner's determination, fulfillment, and interaction, as mentioned in research where 385 university students of several disciplines in Nepal had been inquired about their viewpoints about on-line classes started during COVID-19 lockdown. This reality illustrates the significance of evaluating learners' viewpoints about on-line classes, an important one (Aditya and Jha, 2020).

In a very short duration of the COVID-19 outbreak, several experts have contributed to learning and teaching in various ways. Many colleges, universities, and schools have stopped physical and face to face classes. There's a concern about losing the 2020 educational year or maybe more in the future.

The necessity of the time would be to implement and innovate different academic systems and examination systems. The COVID-19 pandemic has given us a chance to create and introduce ways for online learning. This informative article is meant to provide a detailed review regarding the effect of the COVID-19 outbreak on online learning and teaching of different reports and show the way ahead (Basilaia and Kvavadze, 2002).

### ***Problems in Learning and Teaching***

With all the accessibility to a lot of tools and on-line academic systems the students, deal with numerous problems when making use of it or talking about these types of tools. A few of the issues recognized and underlined by numerous experts are shown as follows: Commonly uncovered problems with online learning are ease of access, cost, overall flexibility, learning pedagogy, long-term learning, and academic policy (Murgatrotd, 2020). Several countries worldwide have considerable difficulties with a reliable Internet access and having access to online devices.

Although in several developing countries around the world, financially backward kids cannot easily afford on-line learning tools, online education, and learning to present a threat of experience with higher screen time for the student. Thus, it is required for learners to participate in off-line activities as well as self-exploratory studying. The deficiency of parental assistance, specifically for young students, is an additional problem, as both dad and mom are doing their jobs. There are practical problems around physical work spaces good to various studying methods (Subedi et al., 2020). The naturally motivated students are relatively unaffected in their learning because they require the most little guidance and supervision. However, the susceptible group, which includes poor learners in their studies, deals with issues. Some educationally qualified students from the financially deprived background cannot access and easily afford on-line learning. The level of educational performance of the learners probably will drop for the classes organized both for annual examination and internal assessment because of minimal contact time for students when experiencing problems in learning and understanding (Sintema, 2020).

### ***Why this Research is Important?***

This research topic was chosen because research on this topic (Effect of Pandemic Based Online Education on Teaching and Learning Systems) is crucial to understand the effects of COVID-19 on online learning and teaching systems.

### ***Research Aim and Objective***

The objective of this research paper was to understand the effects of COVID-19 pandemic on online learning and teaching systems. And how much the students were satisfied with online teaching and the students with online learning.

### ***Target Audience of the Study***

In this research project questionnaires were filled from the students. A questionnaire was created and distributed among students. This research was conducted in Karachi: Institute of Health and Business Management Jinnah Sindh Medical University Karachi-Pakistan.

### ***Research Questions***

- Is online teaching and learning systems are good in educational field?
- Are all the students are satisfied with online learning and teaching?
- What problems students face during online learning and teaching in the pandemic of COVID-19?

### **LITERATURE REVIEW**

COVID-19 was an unrivalled situation that took the entire world by storm. Nearly all nations around the globe were seriously affected simultaneously. In the education and learning sector, all organizations and institutions were quit because of the lockdown enforced by government authorities (Shawaqfeh et al., 2020). Although, as a result of the epidemic, it provides broadened options for learning flexibility throughout the lockdown (Rahiem, 2020), education technology seemed like the saviour of the education industry throughout the outbreak (Teras et al., 2020). As the desire for an even more robust on-line learning experience, national attempts were put into distant learning, large scale, online learning and distance learning (Ali, 2020). Students and are still at the cross-road between completely embracing online clinging and learning onto the conventional face-to-face class. Online learning was regarded as a short-term solution (Torrau, 2020).

Hodges et al., 2020 described that the online learning experience that's being applied now's not the exact type of online learning; it's known as Emergency Remote/Online Learning. Even though all the praise for on-line learning's several benefits, it's still considered complementary and supplementary learning and teaching tool, with the instructor or teacher remaining in the middle of the procedure (Kaur and Bhatt, 2020). With the change from face-to-face learning to online, the majority of government authorities have commanded that face to face classes be stopped instantly, pressuring students to move to online teaching and digital education and learning very quickly (Daniel, 2020). Online learning has frequently had a preconception for being inferior to conventional face-to-face classes. The abrupt unprepared change might have adversely affected the perception towards on-line learning. This challenging transition would eventually close off online learning as a much less robust practical experience (Hodges et al., 2020). Several institutions already have used education technologies before the COVID-19 pandemic.

Consequently, the change was smooth and satisfactory for student. On the other hand, several institutions battled to support the quick transition to on-line learning (Ali, 2020). The practical experience of gaining knowledge from or learning from home might be appropriate for a number of students and hard for many others. The experience will probably be affected by different individual requirements and social relationships (Teras et al., 2020). The primary problem

with this abrupt change is that institutions concentrate on bringing pedagogy, for example, strategies, content, methods, and assessment from the conventional class, into a web-based platform. There wasn't any thought on altering the pedagogy to suit better the on-line learning necessities of the students (Crawford et al., 2020). Because of this, the on-line learning practical experience felt ineffective and forced. It has seriously affected students' perception of online studying.

Due to the outbreak, educational technology has highly developed quickly in several countries around the world: mobile phones, tablets, virtual and augmented reality, and economical internet broadband connectivity, 5G and 4G make it easy to have an online learning procedure easier, flexible, and easily accessible (Alsoud, 2021). The on-line learning sector presently has over 200 billion dollars, and it is likely to exceed 375 billion dollars by 2026 (Pokhrel and Chhetri, 2021). Higher education institutions worldwide are taking advantage of this technological development and changing from conventional classroom activities to an on-line delivery method (Mahyoob, 2020). Huang and Wang, 2019 found two kinds of online learning, precisely synchronous and asynchronous, primarily are compared, however for online education to become efficient and effective, teachers (faculty members) and universities should have extensive knowledge of the positive aspects as well as limitations. Asynchronous learning signifies that the course students virtually all communicate with the course content material at various locations and times. The teacher delivers students with a pattern of units that students acquire in line with their schedule. Every unit may use assigned reading materials, published materials, online tests, and discussions. The teacher directs the students, provides them with feedback, and examines them as required (Yang et al., 2021).

## **METHODOLOGY**

The research study targeted determining the effect and influence of on-line classes on students equally.

### ***Preparation of Questionnaire***

The questionnaire was made to distribute among the targeted respondents. The set of questions would center on different elements of on-line learning as well as the answers would give the mandatory data for the research study. A primary list of questions was made to find the participants' viewpoints regarding different elements of the on-line learning and teaching systems. After cautious discussion, we have chosen to concentrate on several significant factors. Such as starting online classes, transfer of knowledge, comfort level in online learning, analysis, and long-term future aspects. The questions were reformatted and re-written to fit our aim and obtain the best answers. The questionnaire was made to center on a number of essential groups: school students, college students. In the selected factors, questions were altered, or different new questions were included to fit each group.

5-point Likert scale questionnaire was prepared. Thirty questions were made. The Likert scale questionnaire ranged from "Very Satisfied" to "Very

Unsatisfied" to get the point of view of people. Likert scale, also known as Satisfaction Scale.

### ***Data Collection Methods***

When the questionnaire was prepared, the Questionnaire Forms were distributed to the targeted people, and the responses were collected. The data was collected from Institute of Health and Business Management Jinnah Sindh Medical University Karachi-Pakistan. It was completed by distributing the questionnaires to students. The population size in this survey was 235 people. After collecting the data from the targeted population, the data was analyzed in Microsoft Excel.

### ***Participants***

#### ***Probability Sampling***

Probability sampling techniques was used in this research study. Probability sampling was used as all the participants (students) were chosen randomly with a few selection criteria. And all the members have equal opportunity to be the part of the research project.

#### ***Inclusion and Exclusion Criteria***

The students were limited to the Institute of Health and Business Management Jinnah Sindh Medical University Karachi-Pakistan. The students that were belonging to another institution can't be included in the study. The students below 18 were not included in the research. As well as the participants except Pakistan can't be participate in the study.

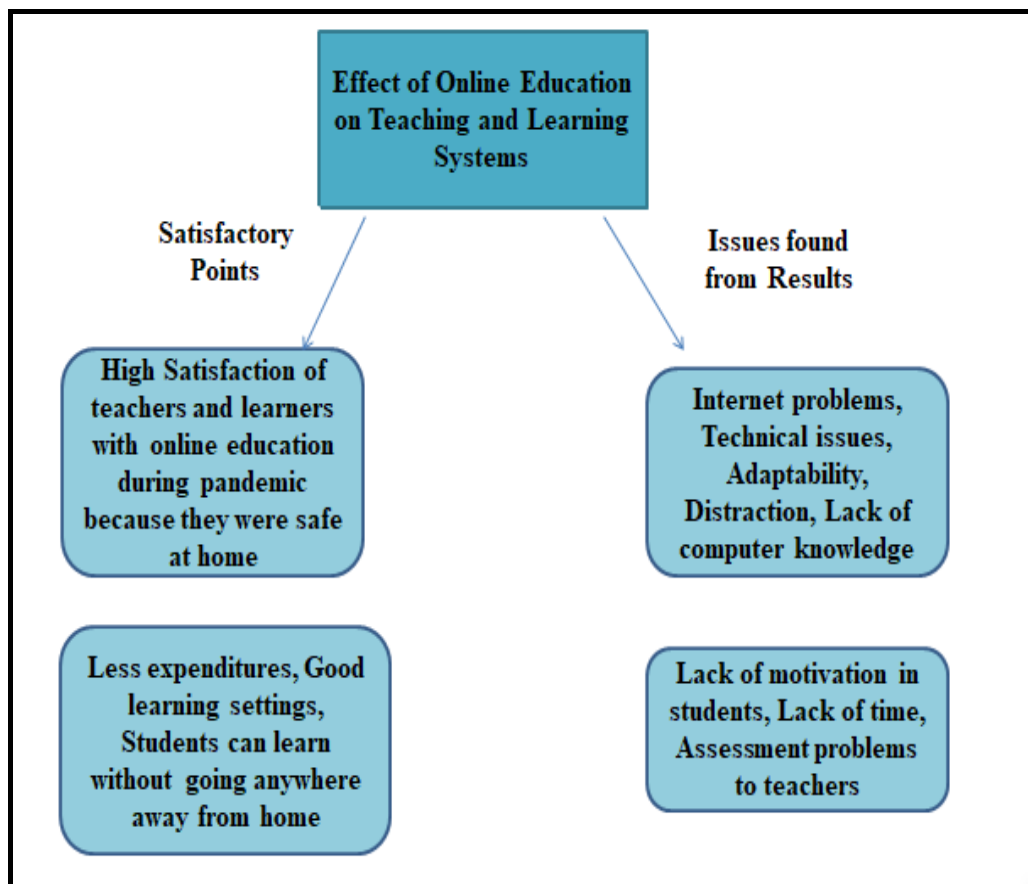
### ***Data Analysis***

The answers were analyzed in MS Excel; the data was collected from learners, including students from Institute of Health and Business Management Jinnah Sindh Medical University Karachi-Pakistan. The final results of all of the questions had been analyzed and different viewpoints and issues brought up by the participants were gathered, compared, and then analyzed. All the results of the respondents had been entered in the MS Excel sheet. The percentages and number of responses had been examined, and graphs were made according to the participants' answers. Meta-analysis was also done. A meta-analysis can be described as a statistical evaluation that combines several research studies' outcomes. Meta-analyses can be done when several research studies deal with a similar question, with every person's study reporting proportions that are predicted to have some extent of mistake (Field and Gillett, 2010).

## **RESULTS**

The results are presented in table form as well as shown in the graphs. The data was collected from 235 respondents. The questionnaire was created (attached in Appendix) and distributed to students. The analysis was done in Microsoft Excel. All the participants' responses were added to the MS Excel Sheet, and

analysis was done. The percentage of the respondents' answers was found to understand the participants' point of view. The results that have got through the analysis showed that a huge number of students were satisfied with the online-based teaching and learning. Still, a lot of respondents have shown dissatisfaction with online learning and teaching. However, online pandemic-based online education has huge effects on learning and teaching as the pandemic of COVID-19 has affected the whole world globally. The results demonstrated that several students were happy with online home-based education, but many of them have faced a lot of challenges during this pandemic, such as internet problems, lack of time, discussion problems, lack of attention, and other technology-based issues.



The percentages and graphs of the answers of the participants have shown below:

#### *Demographic Information of the Research Participants (n=235)*

Research Study Variables		N (%)	Total
Gender	Male	125 (53.2%)	N=125
	Female	110 (46.8%)	N=110
Age	18-24	63 (26.8%)	N=63
	25-44	96 (40.8%)	N=96



	45-54	59 (25.1%)	N=59
	55-64	11 (4.6%)	N=11
	65 or Above	6 (2.5%)	N=6
<b>Marital Status</b>	Single	167 (71.1%)	N=167
	Married	48 (20.4%)	N=48
	Other	20 (8.5%)	N=20
<b>Qualification</b>	Graduate	89 (37.8%)	N= 89
	Bachelors' Degree	76 (32.3%)	N= 76
	Others	70 (29.7%)	N= 70
<b>Location</b>	Pakistan	235 (100%)	N= 235
	Others	0 (0%)	N= 0

*Data of Respondents (Percentage %)*

Sr	Questions	Very Satisfied (%)	Satisfied (%)	Neutral (%)	Unsatisfied (%)	Chi-Square Results/P-value	Very Unsatisfied (%)	Total
1	Is the sudden procedure of online classes was smooth?	0.29	0.22	0.01	0.26	0.693640622	0.22	100%
2	I was actively involved in online classes/lectures.	0.26	0.26	0.01	0.24	0.599426279	0.24	100%
3	I was more satisfied in online classes than our traditional classrooms.	0.26	0.26	0.01	0.26	0.430791121	0.21	100%
4	Online teaching has a lot of problems.	0.23	0.23	0.02	0.29	0.469221156	0.23	100%
5	Students were not attentive in online classes.	0.29	0.25	0.01	0.24	0.213230505	0.22	100%
6	Internet issue was a major issue in online teaching and learning systems.	0.23	0.25	0.02	0.24	0.843525869	0.26	100%

7	I could not communicate properly due to internet issues and due to shortage of time during online learning.	0.28	0.26	0.00	0.25	0.295582862	0.21	100%
8	Learning and teaching systems are greatly affected by COVID-19 pandemic.	0.23	0.24	0.01	0.28	0.511481779	0.24	100%
9	I miss face-to-face classes during pandemic.	0.31	0.22	0.00	0.24	0.295582862	0.23	100%
10	The technology used during the pandemic's online learning and teaching systems were reliable.	0.26	0.24	0.02	0.26	0.692379268	0.22	100%
11	The flexibility that was provided during the online learning and teaching environment was more than our traditional classes.	0.27	0.20	0.00	0.29	0.432767581	0.23	100%
12	The communication with the teachers and class mates was easy in the chat groups.	0.25	0.29	0.01	0.25	0.131867032	0.20	100%
13	The use of multi-media apps for learning and teaching during COVID-19 was easy.	0.28	0.20	0.02	0.31	0.645109876	0.20	100%

14	I participated more in online classes than our conventional classroom.	0.27	0.26	0.01	0.25	0.358019719	0.22	100%
15	Instructions from the teachers were clear.	0.27	0.23	0.02	0.28	0.843525869	0.21	100%
16	Online presentations were not suitable and understandable.	0.26	0.22	0.00	0.27	0.647937263	0.25	100%
17	I feel that learning and teaching from home reduced the chances of getting COVID-19.	0.27	0.23	0.02	0.25	0.742173944	0.23	100%
18	Online learning and teaching system was safe for our health.	0.29	0.23	0.01	0.27	0.511481779	0.20	100%
19	I miss social interactions with my fellows during COVID-19.	0.25	0.28	0.01	0.23	0.265404893	0.23	100%
20	Online education was a good step from the govt. to continue our studies.	0.26	0.29	0.02	0.24	0.130206291	0.20	100%
21	We have faced problems during completing assignments.	0.22	0.24	0.02	0.30	0.323678161	0.23	100%
22	Proper access to the WI-FI (internet).	0.28	0.24	0.01	0.26	0.511481779	0.22	100%
23	Having easy access to the laptop or computer and other devices.	0.26	0.23	0.08	0.24	0.455227368	0.20	100%

24	I think I speak more in my conventional classroom than I write in the group chats.	0.28	0.26	0.02	0.21	0.130206291	0.23	100%
25	Online teaching was good than conventional classes.	0.28	0.26	0.01	0.23	0.168897268	0.22	100%
26	Login access to online class was easy.	0.23	0.25	0.00	0.28	0.694886602	0.23	100%
27	Transitioning from physical class to online classes increases the educational workload.	0.23	0.27	0.01	0.26	0.94776621	0.23	100%
28	Additional workload during COVID-19 has increased the stress of students.	0.29	0.23	0.01	0.24	0.358019719	0.23	100%
29	I feel comfortable to use social media apps/tools during online learning systems.	0.27	0.26	0.01	0.28	0.237301779	0.17	100%
30	I was already familiar with Zoom and Microsoft Teams.	0.19	0.30	0.10	0.25	0.21636748	0.16	100%

### *Results of Respondents in Numbers*

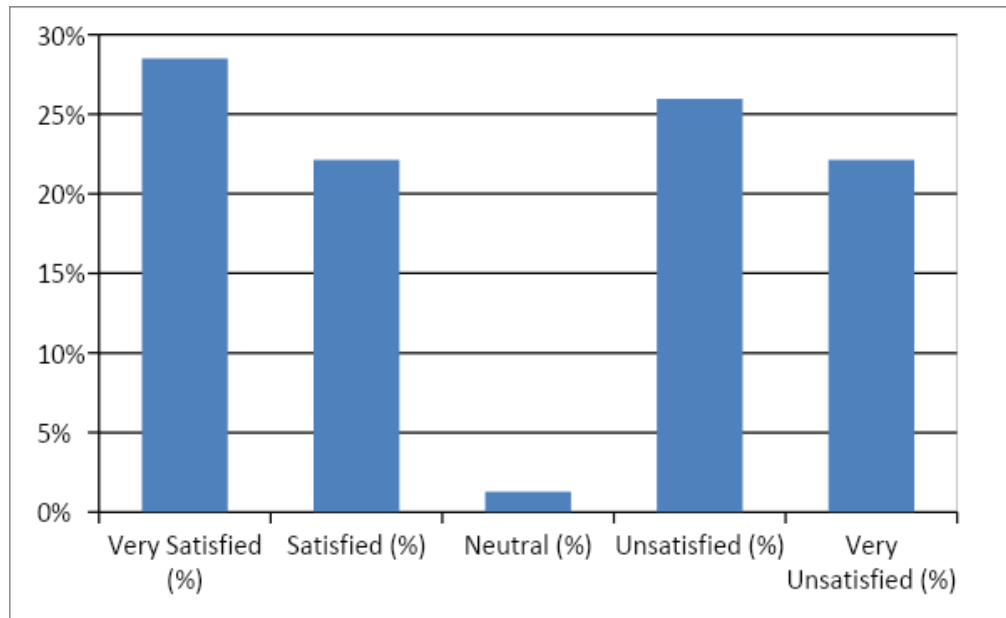
Questions	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	Chi-Square Results/P-value	Total
Question 1	67	52	3	61	52	0.693640622	235
Question 2	60	60	3	56	56	0.599426279	235
Question 3	61	61	3	61	49	0.430791121	235
Question 4	55	55	4	68	53	0.469221156	235

<b>Question 5</b>	67	59	2	56	51	0.213230505	235
<b>Question 6</b>	55	59	4	56	61	0.843525869	235
<b>Question 7</b>	65	60	1	59	50	0.295582862	235
<b>Question 8</b>	55	56	3	65	56	0.511481779	235
<b>Question 9</b>	73	52	1	56	53	0.295582862	235
<b>Question 10</b>	61	57	5	61	51	0.692379268	235
<b>Question 11</b>	64	47	1	69	54	0.432767581	235
<b>Question 12</b>	59	69	2	58	47	0.131867032	235
<b>Question 13</b>	65	47	4	72	47	0.645109876	235
<b>Question 14</b>	63	60	3	58	51	0.358019719	235
<b>Question 15</b>	64	53	4	65	49	0.843525869	235
<b>Question 16</b>	62	52	0	63	58	0.647937263	235
<b>Question 17</b>	63	55	4	59	54	0.742173944	235
<b>Question 18</b>	67	54	3	64	47	0.511481779	235
<b>Question 19</b>	59	66	2	55	53	0.265404893	235
<b>Question 20</b>	60	67	4	56	48	0.130206291	235
<b>Question 21</b>	51	57	4	70	53	0.323678161	235
<b>Question 22</b>	65	56	3	60	51	0.511481779	235
<b>Question 23</b>	61	53	18	57	46	0.455227368	235
<b>Question 24</b>	65	62	4	49	55	0.130206291	235
<b>Question 25</b>	65	62	2	54	52	0.168897268	235
<b>Question 26</b>	55	59	1	66	54	0.694886602	235
<b>Question 27</b>	54	63	2	61	55	0.94776621	235
<b>Question 28</b>	69	54	3	56	53	0.358019719	235
<b>Question 29</b>	64	61	3	66	41	0.237301779	235

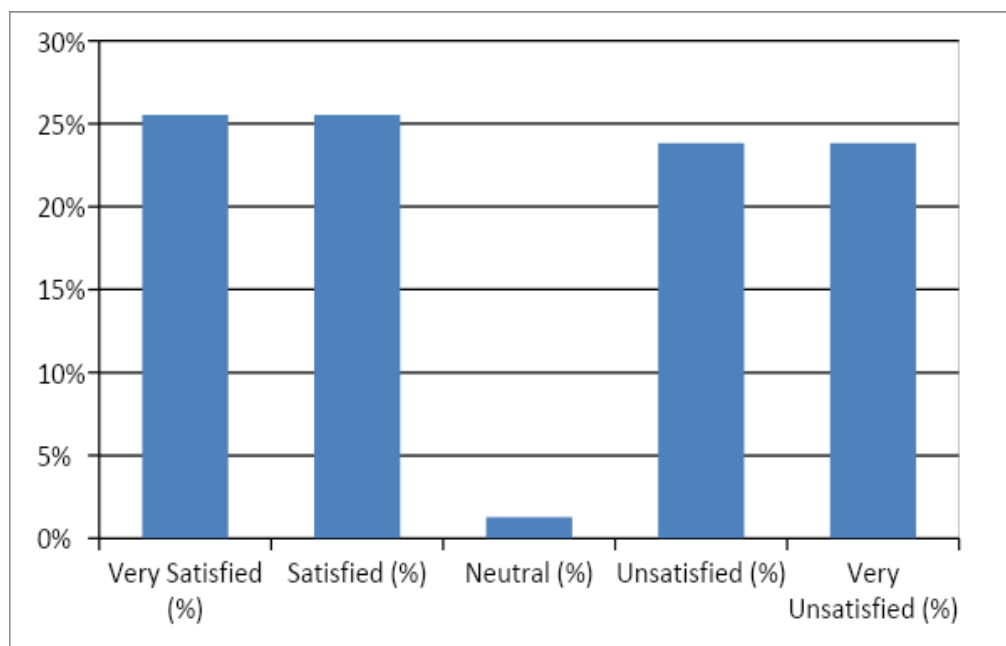
<b>Question 30</b>	45	70	23	59	38	0.21636748	235
<b>Total</b>	<b>1839</b>	<b>1738</b>	<b>119</b>	<b>1816</b>	<b>1538</b>		<b>7050</b>

### *Graphical Representation of Answers from Respondents*

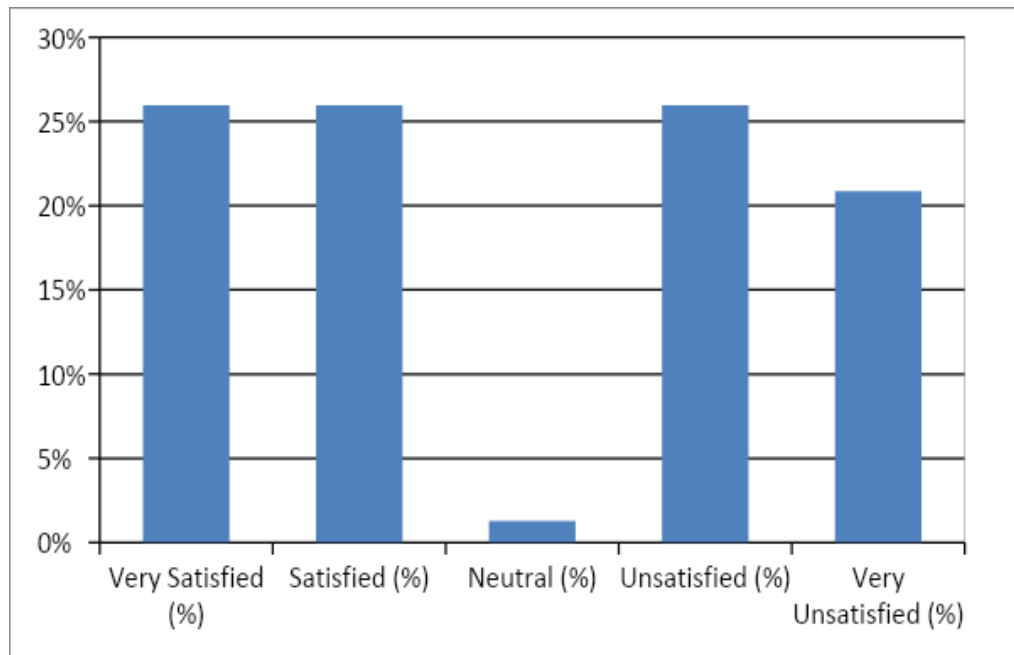
#### *Question 1: Is the Sudden Procedure of Online Classes Was Smooth?*



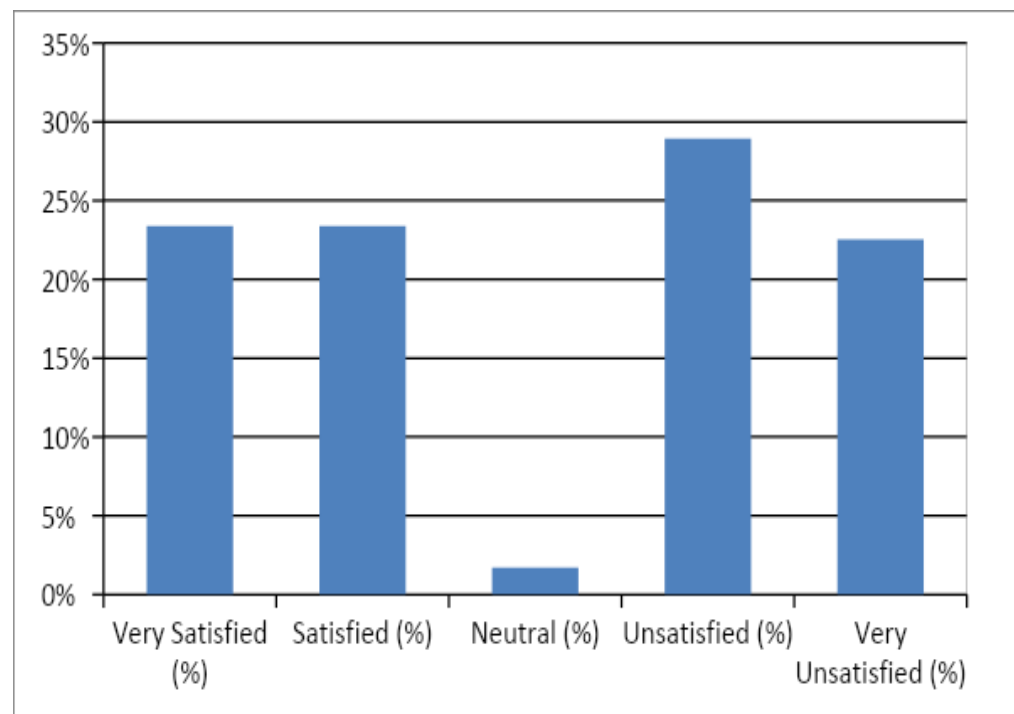
#### *Question 2: I Was Actively Involved in Online Classes/Lectures.*



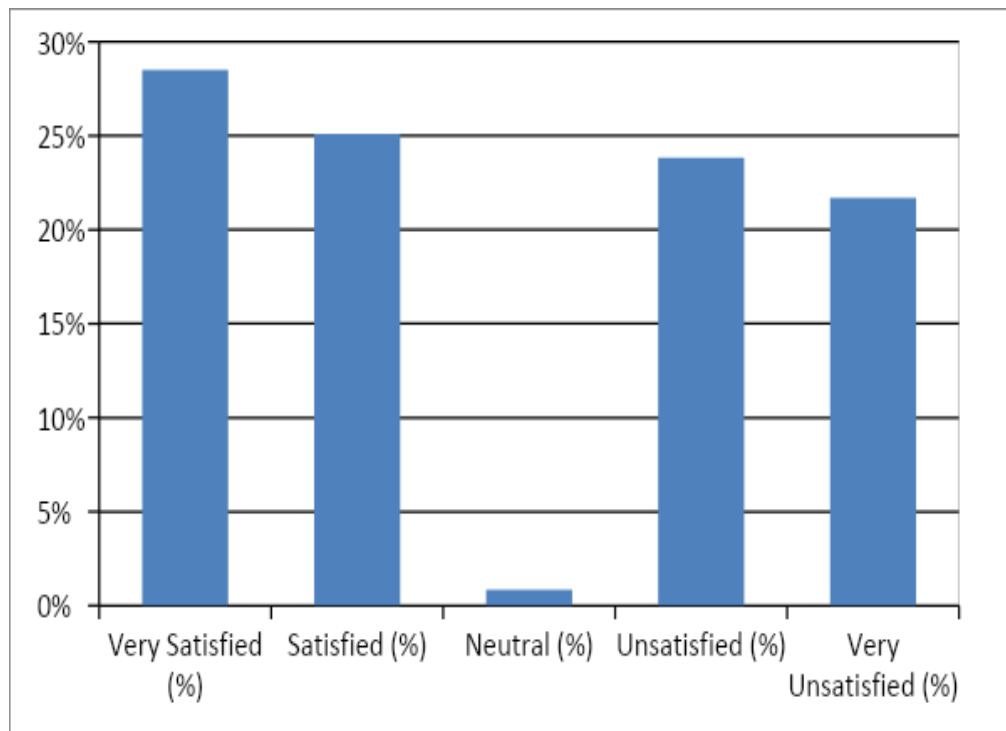
**Question 3: I Was More Satisfied in Online Classes Than Our Traditional Classrooms.**



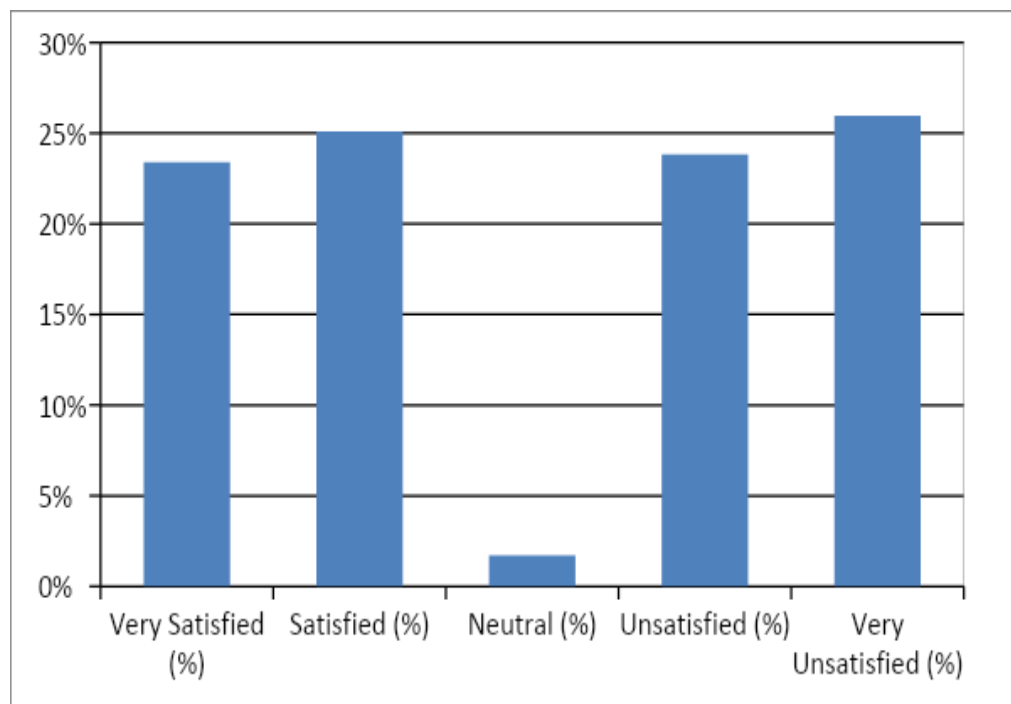
**Question 4: Online Teaching Has a Lot of Problems.**



***Question 5: Students Were Not Attentive in Online Classes.***

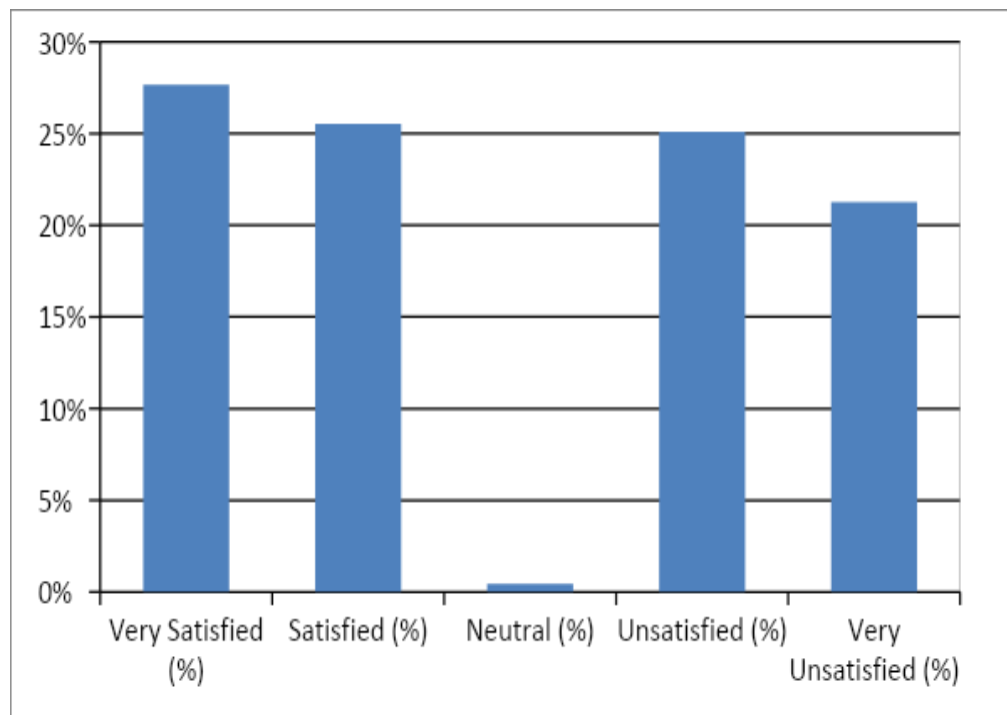


***Question 6: Internet Issue Was a Major Issue in Online Teaching and Learning Systems.***

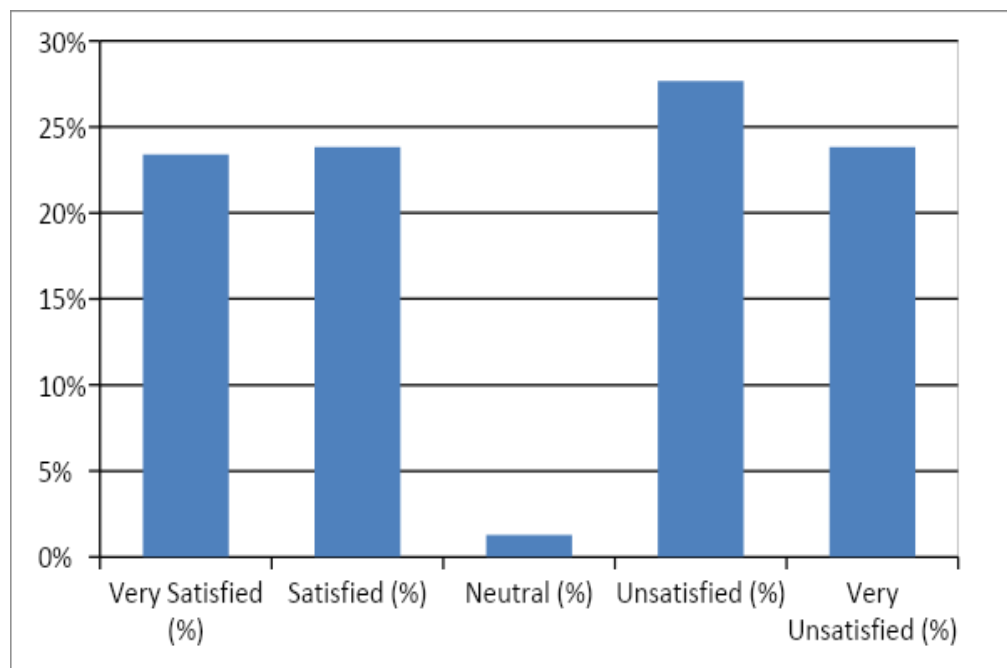


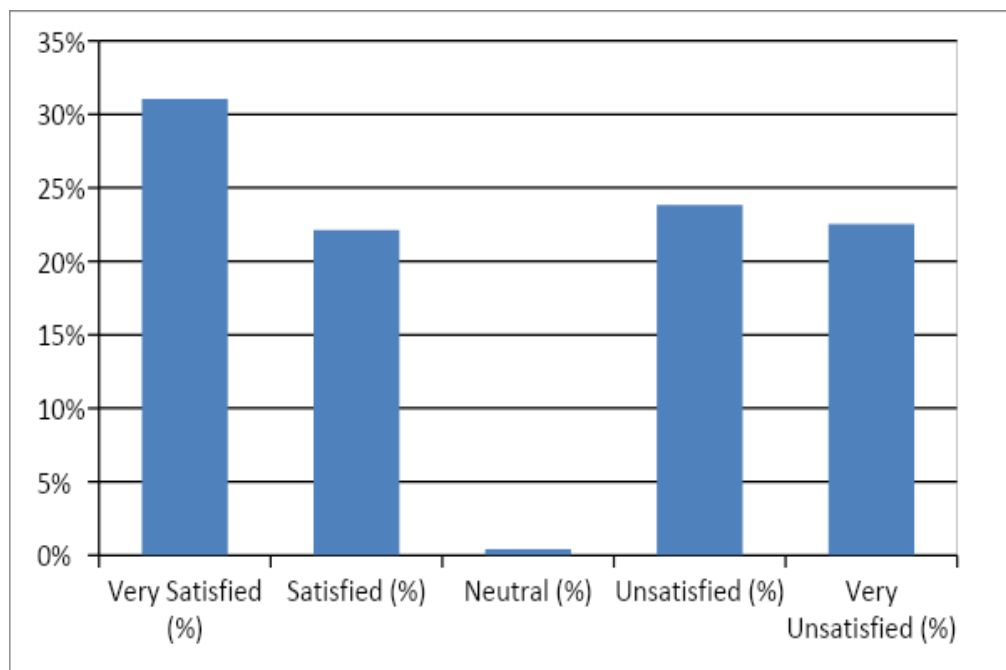
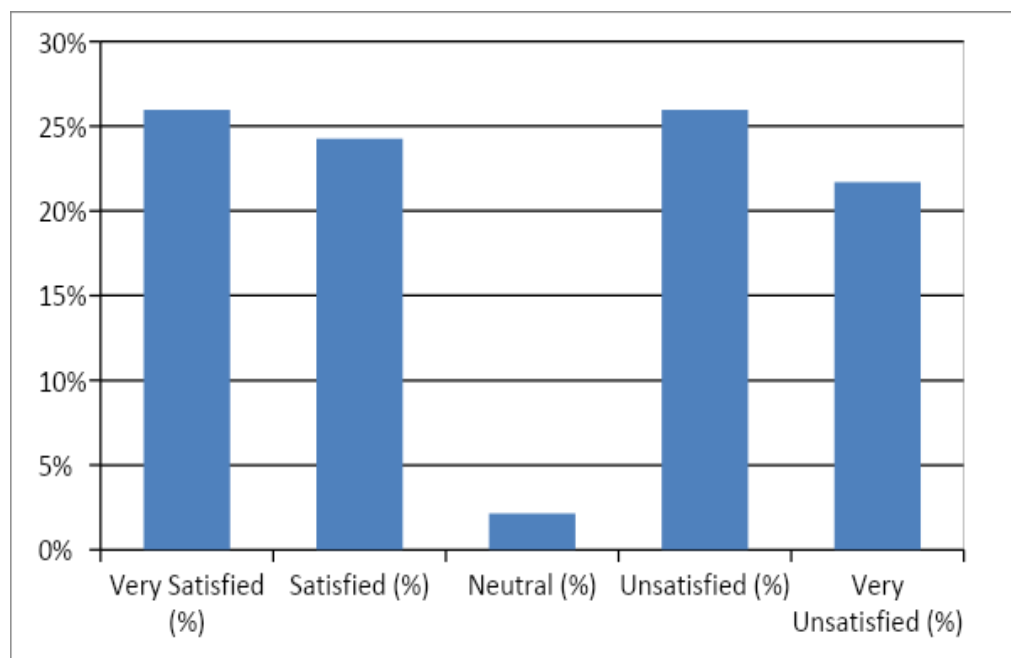


***Question 7: I Could Not Communicate Properly Due to Internet Issues and Due to Shortage of Time During Online Learning.***

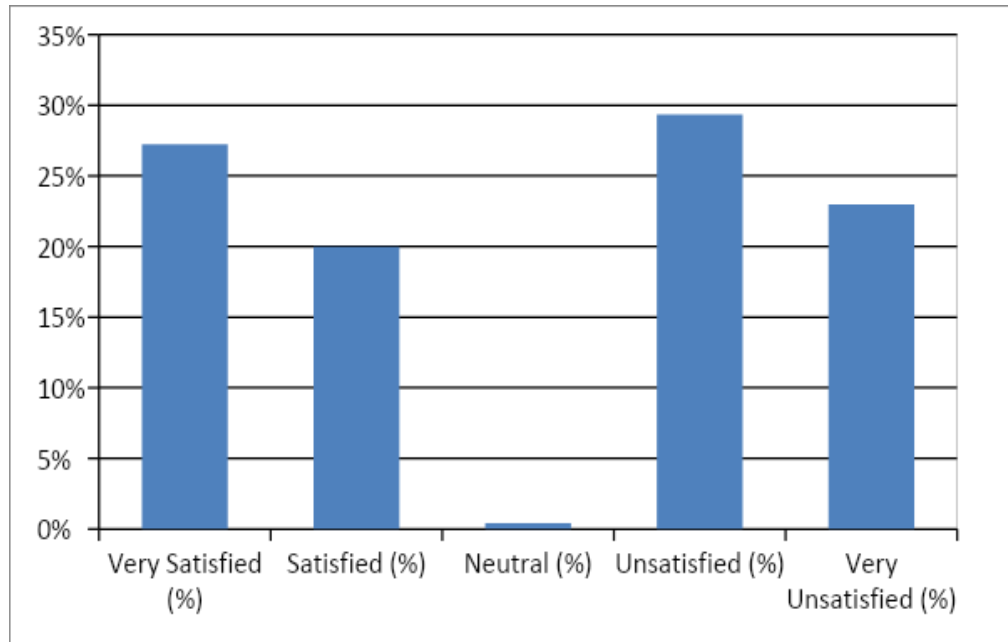


***Question 8: Learning and Teaching Systems Are Greatly Affected By COVID-19 Pandemic.***

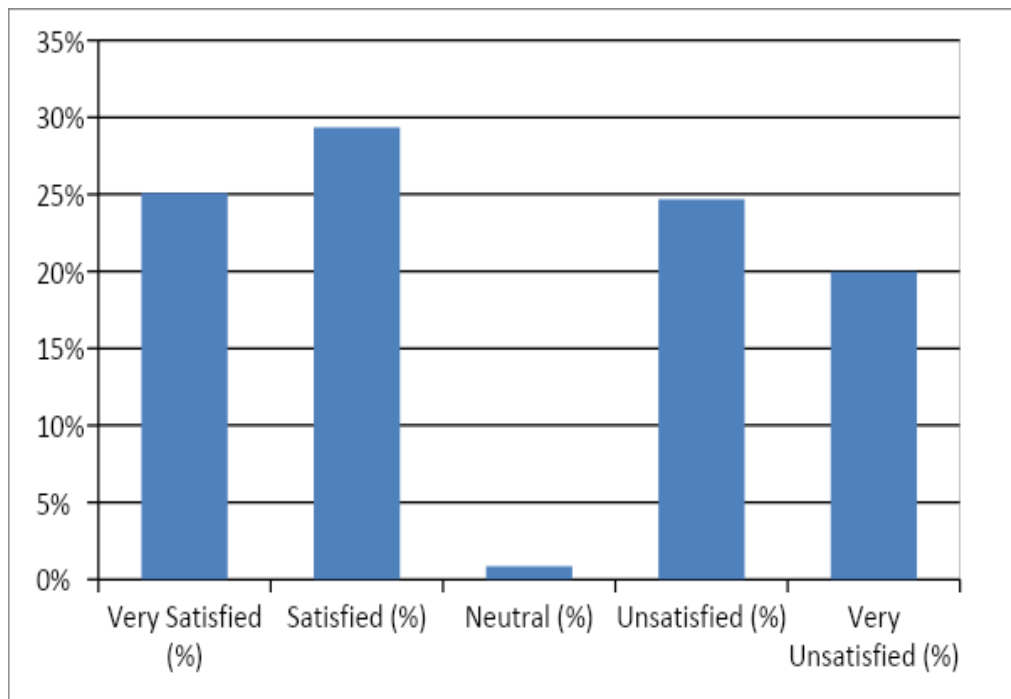


***Question 9: I Miss Face-To-Face Classes During Pandemic.******Question 10: The Technology Used During the Pandemic's Online Learning and Teaching Systems Were Reliable.***

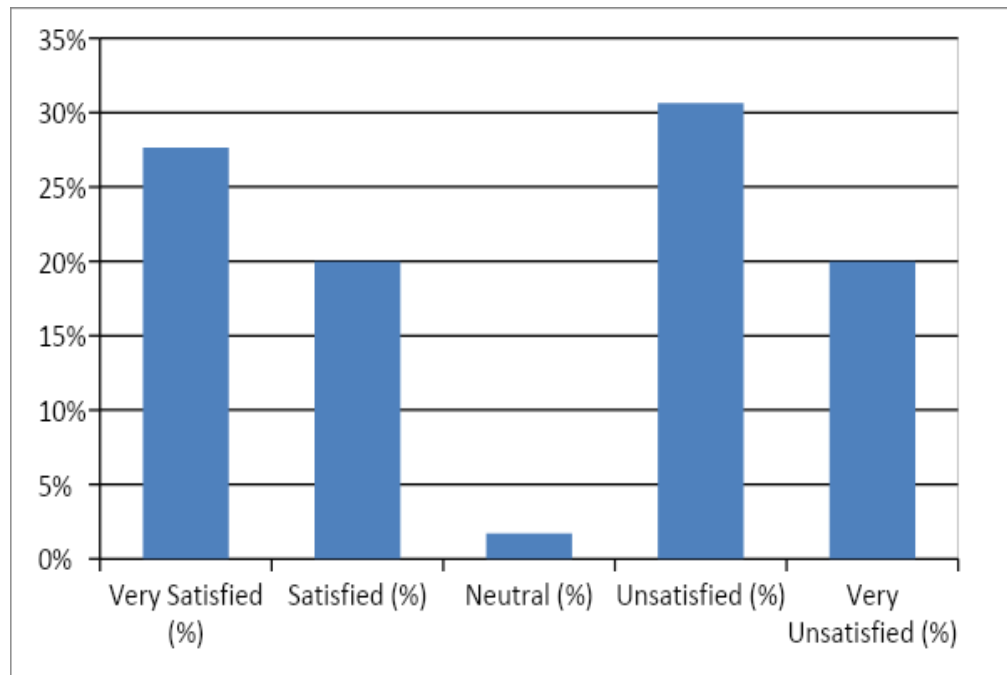
**Question 11: The Flexibility That Was Provided During the Online Learning and Teaching Environment Was More Than Our Traditional Classes.**



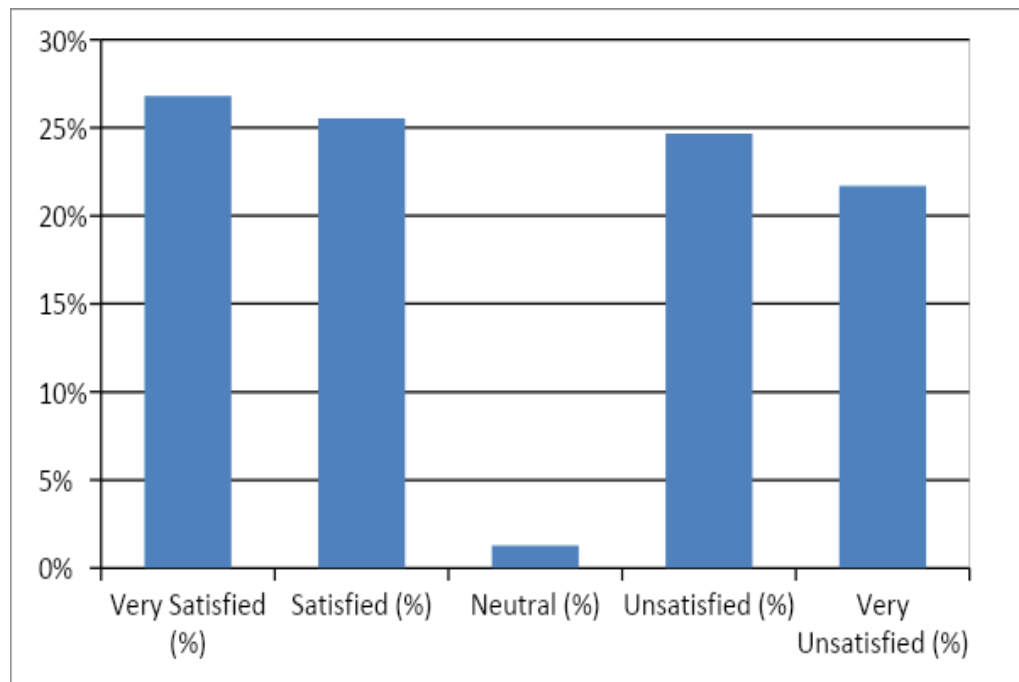
**Question 12: The Communication with The Teachers and Class Mates Was Easy in The Chat Groups.**



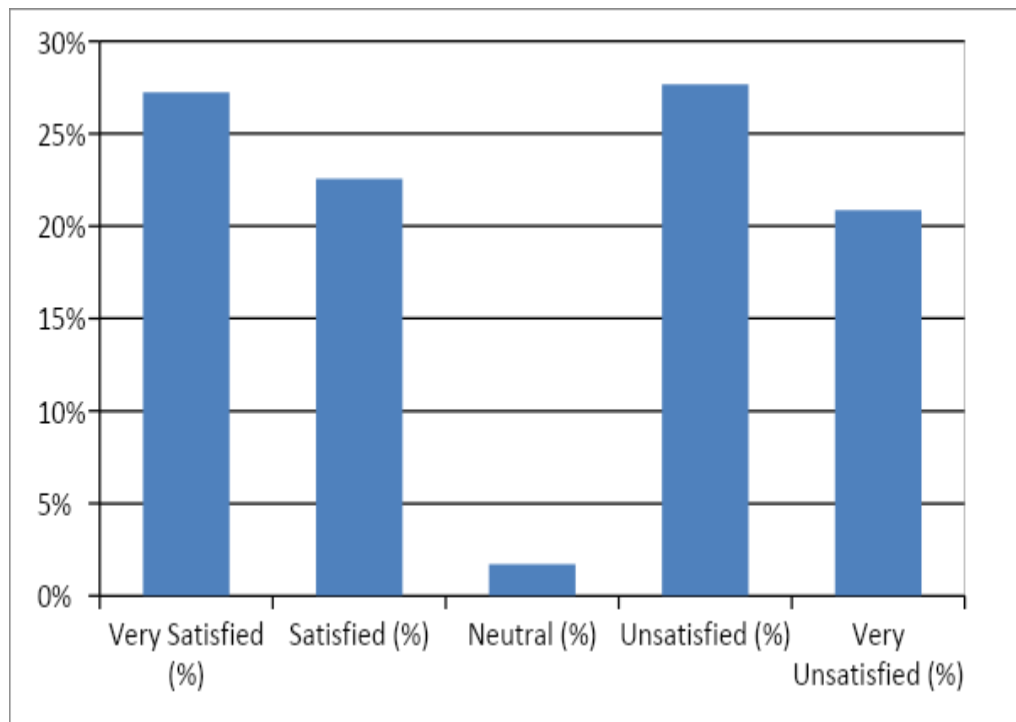
**Question 13: The Use of Multi-Media Apps for Learning and Teaching During COVID-19 Was Easy.**



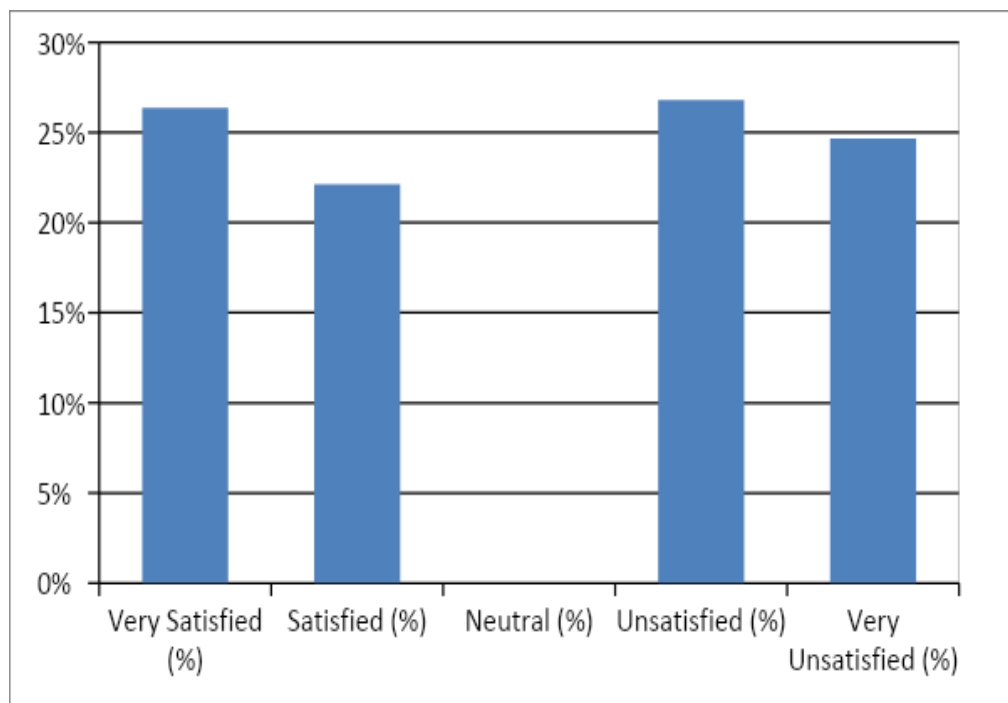
**Question 14: I Participated More in Online Classes Than Our Conventional Classroom.**



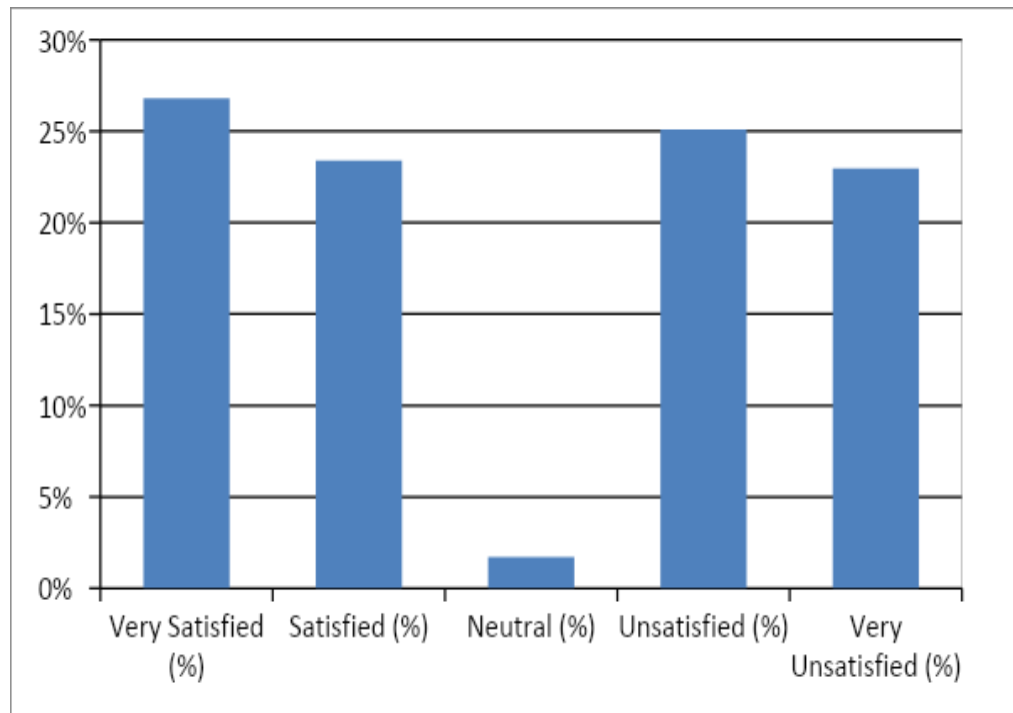
***Question 15: Instructions from The Teachers Were Clear.***



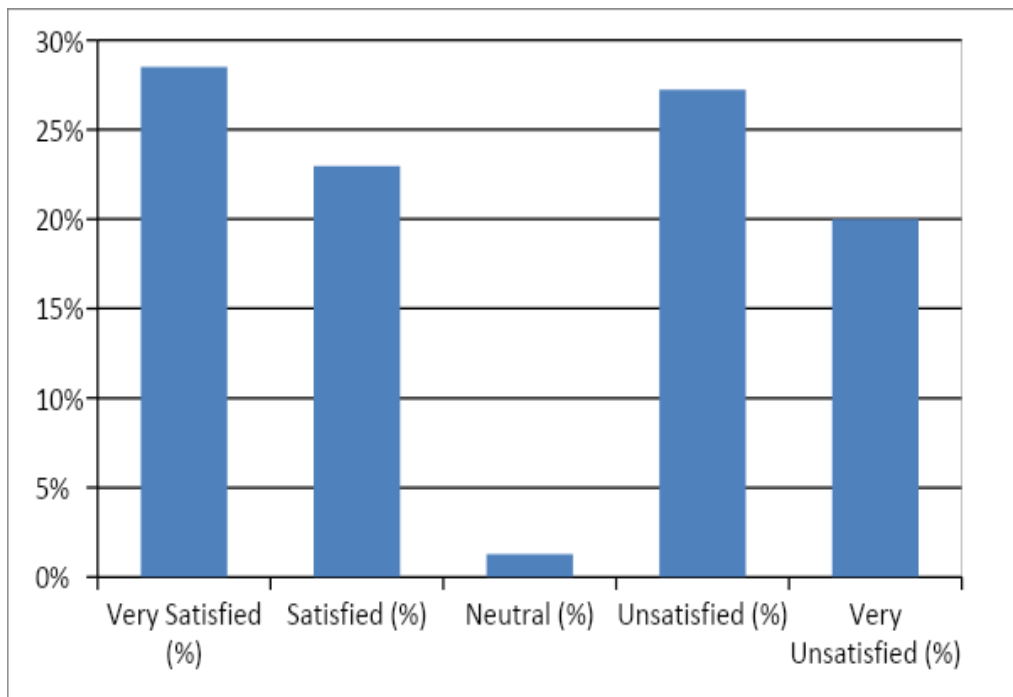
***Question 16: Online Presentations Were Not Suitable and Understandable.***



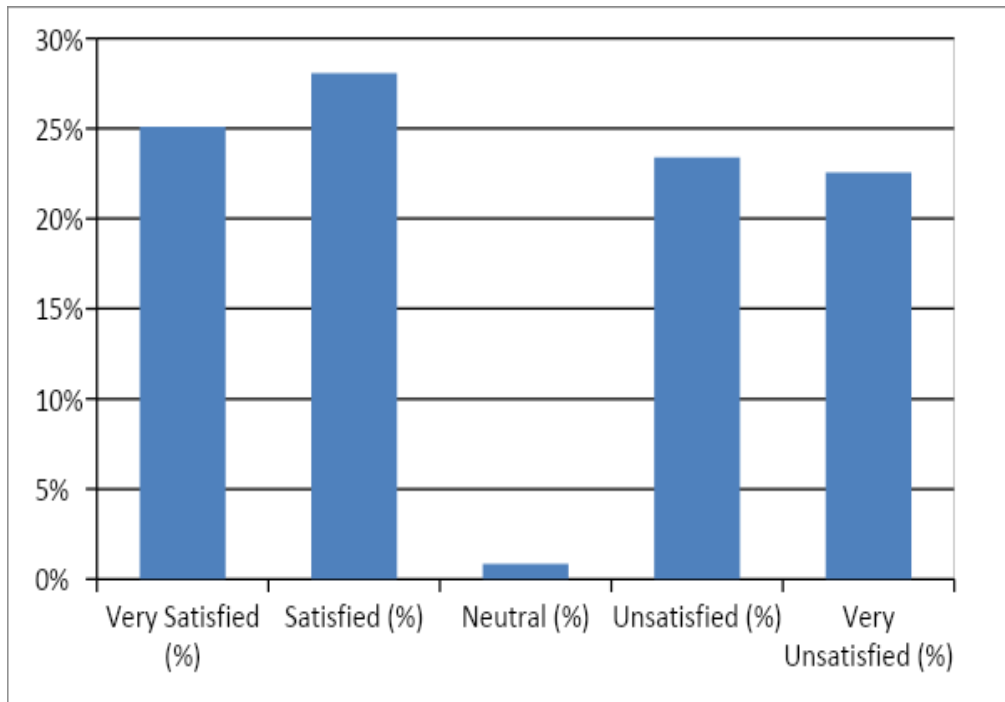
**Question 17: I Feel That Learning and Teaching from Home Reduced the Chances of Getting COVID-19.**



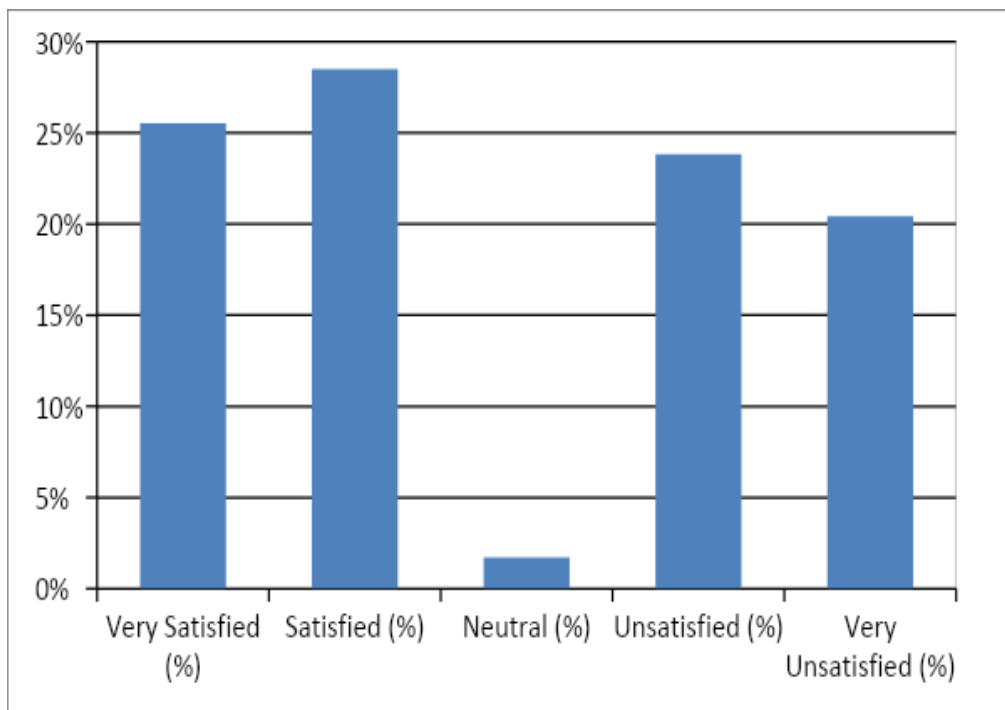
**Question 18: Online Learning and Teaching System Was Safe for Our Health.**

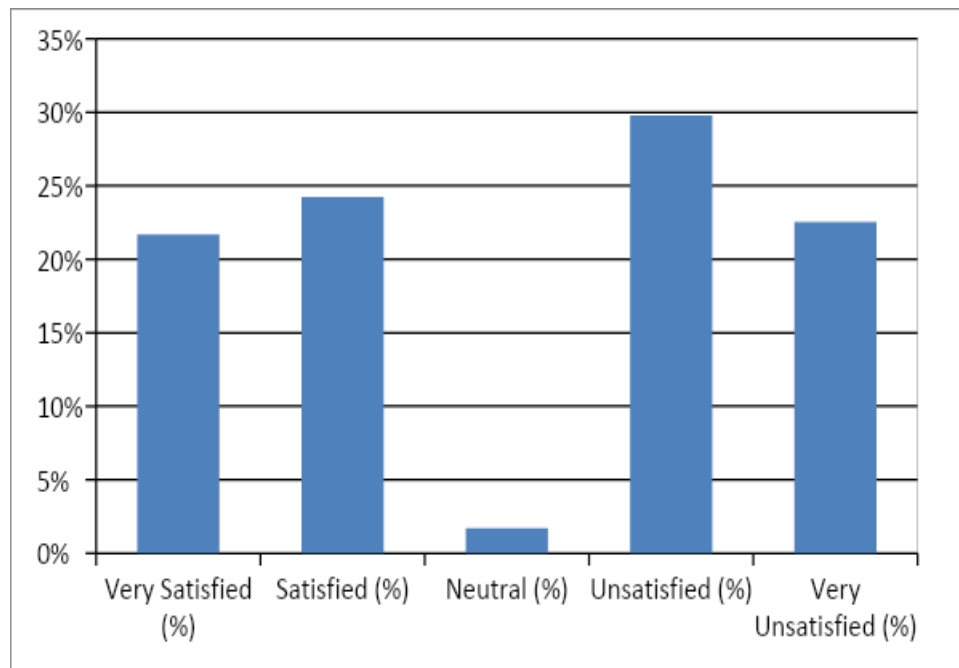
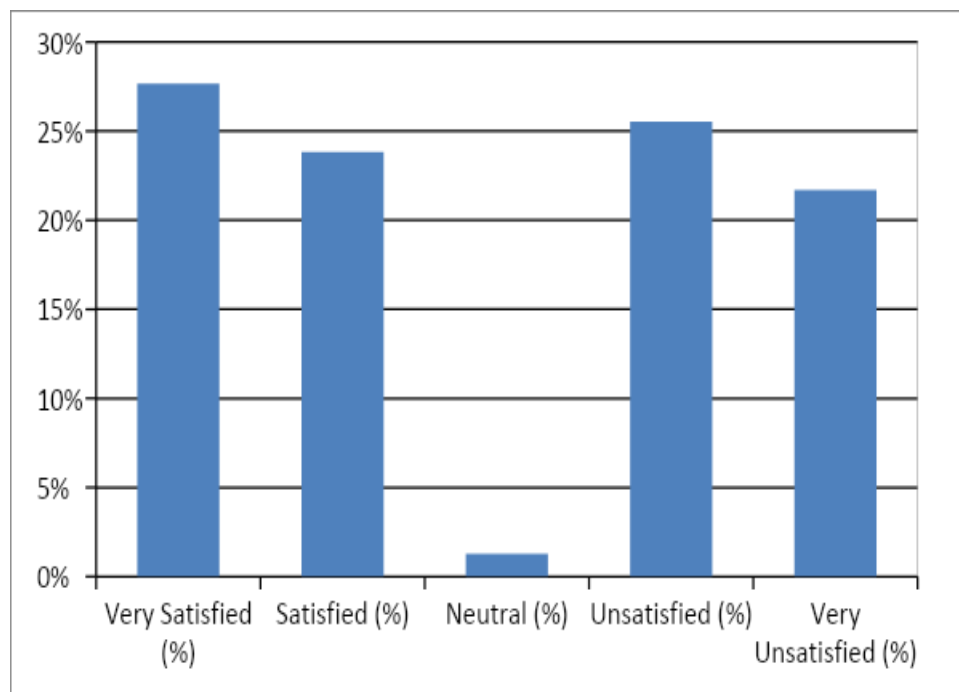


**Question 19: I Miss Social Interactions with My Fellows During COVID-19.**



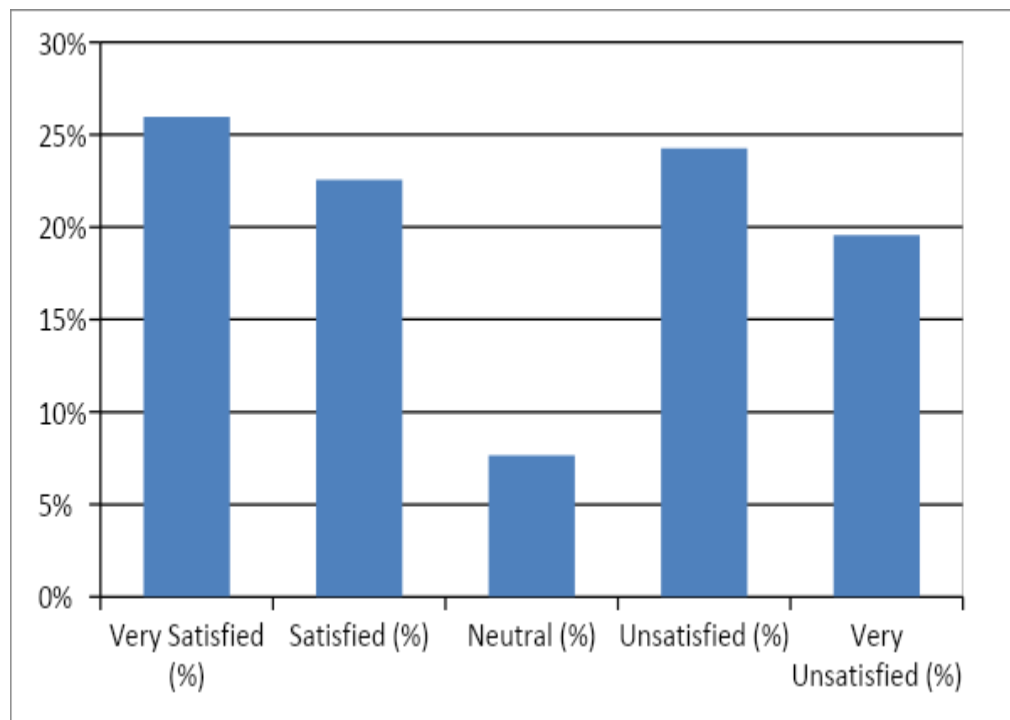
**Question 20: Online Education Was a Good Step from The Govt. To Continue Our Studies.**



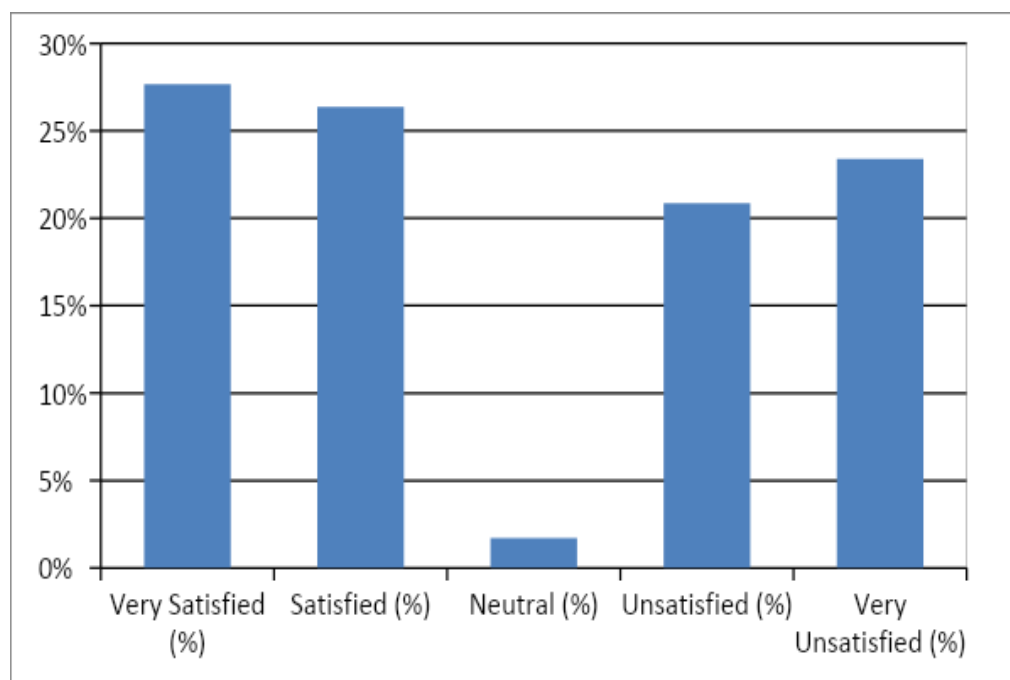
***Question 21: We Have Faced Problems During Completing Assignments.******Question 22: Proper Access to the WI-FI (Internet).***

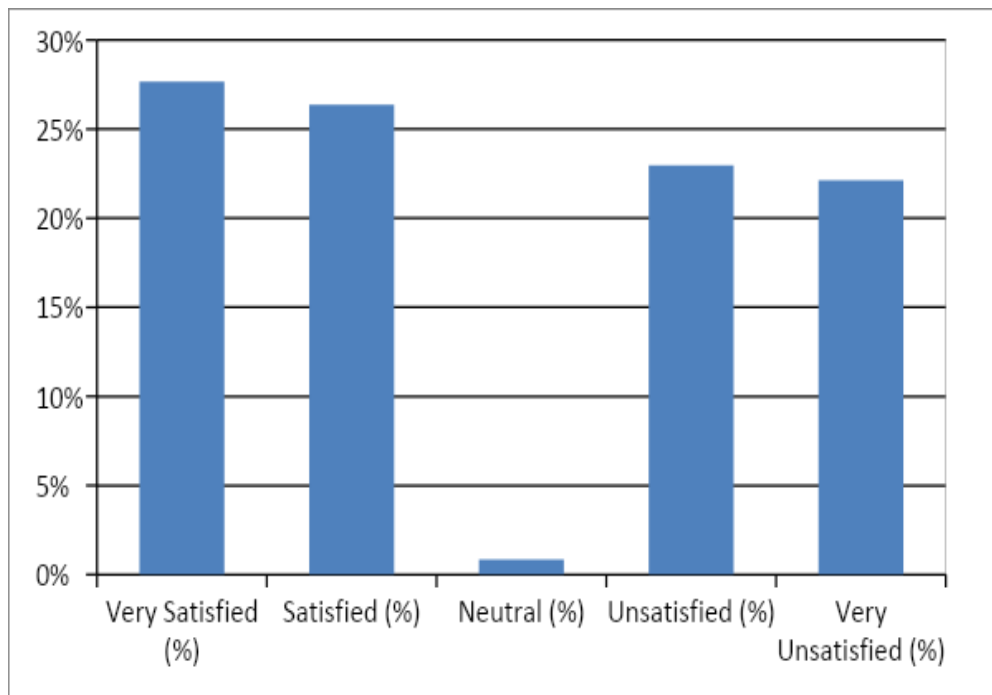
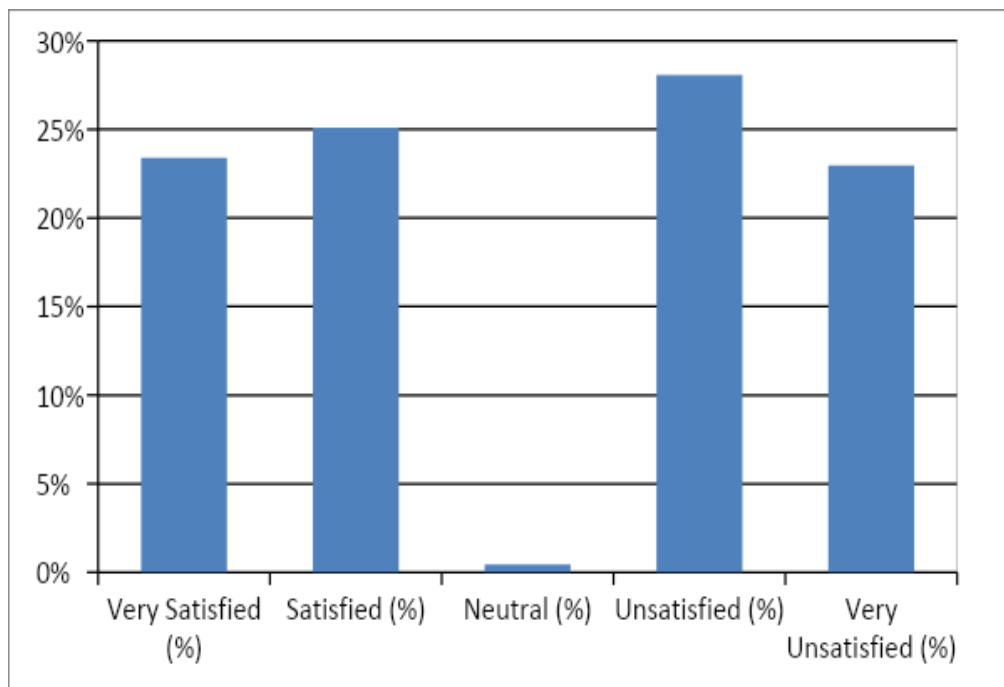


**Question 23: Having Easy Access to The Laptop or Computer and Other Devices.**

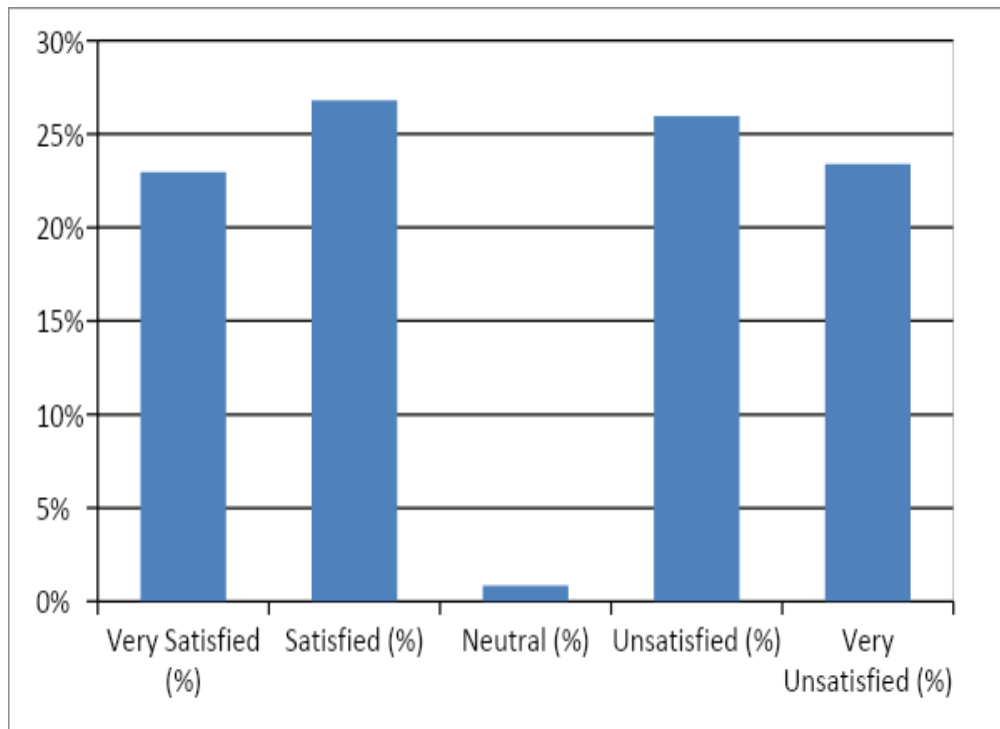


**Question 24: I Think I Speak More in My Conventional Classroom Than I Write in The Group Chats.**

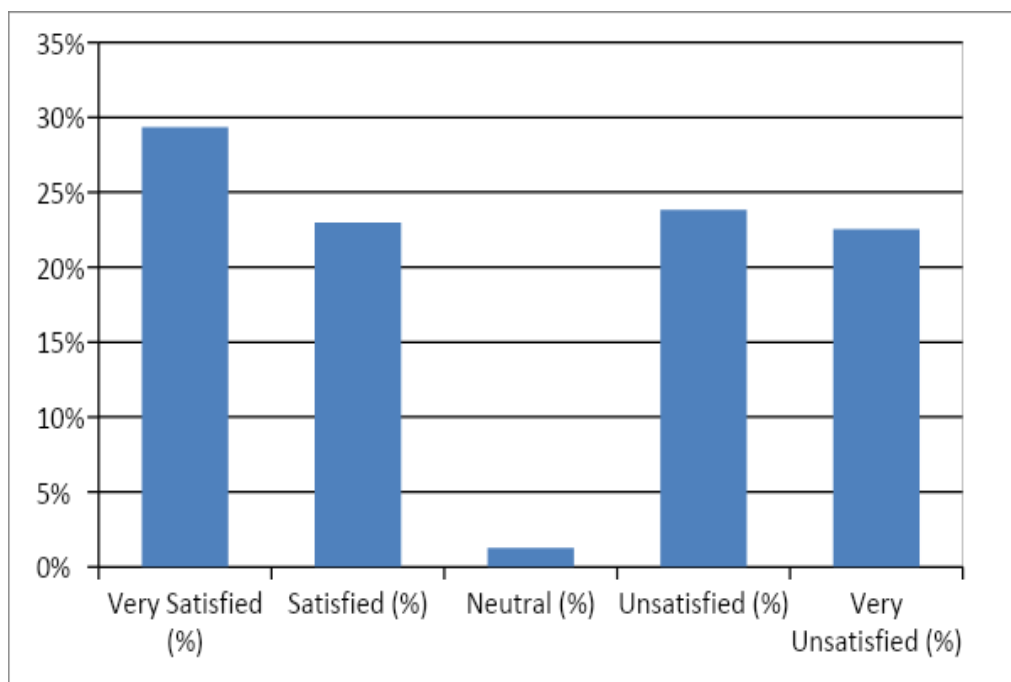


***Question 25: Online Teaching Was Good Than Conventional Classes.******Question 26: Login Process to Online Class Was Easy.***

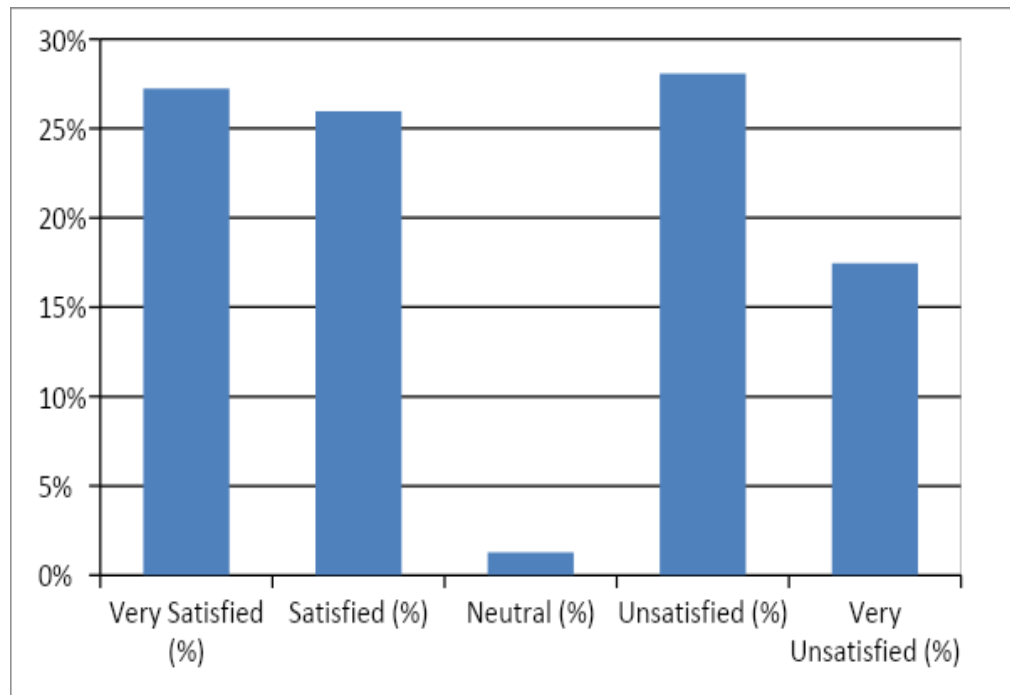
***Question 27: Transitioning from Physical Class to Online Classes Increases the Educational Workload.***



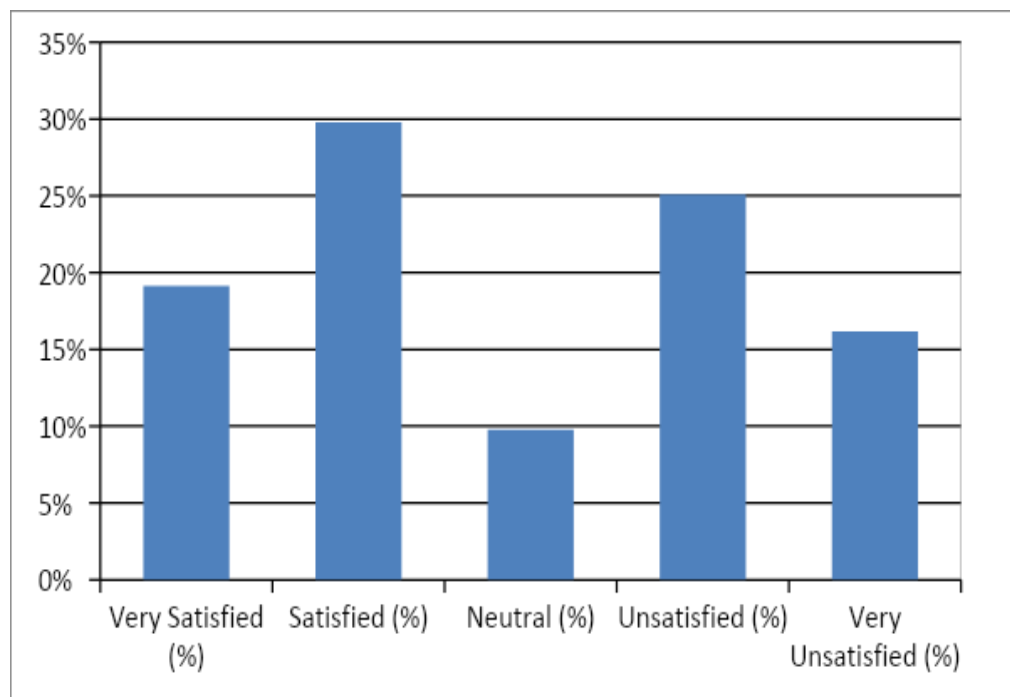
***Question 28: Additional Workload During COVID-19 Has Increased the Stress of Students.***



**Question 29: I Feel Comfortable to Use Social Media Apps/Tools During Online Learning Systems.**



**Question 30: I Was Already Familiar with Zoom and Microsoft Teams.**



## DISCUSSION AND CONCLUSION

However, COVID-19 outbreak hit hard in almost every walk of life, students started their journey again soon enough by starting emergency online or remote learning systems making use of different on-line collaborative methods in hand, also without any appropriate training and pre-planned course structure to

students for adjusting to the change. Both the students' groups and instructors groups had been mainly in favor of regular classes. Many felt physical classes were much better when it comes to effectiveness, discussion, and overall understanding. Although, many students were in favor of online classes because they thought it was an excellent step to stay healthy. While there is certain comfort and ease in learning/teaching online from home, different technical problems as well as the more hard work one must invest in making the method taxing on students. However, many of the results showed that traditional/physical learning is better than online study; we can conclude that this was due to the unrivaled situations and the insufficient planning of students towards moving to this way of learning. On-line education and learning can rule the academic field if the appropriate effort is taken from the govt. and professionals of educational institutions. The advancement of on-line knowledge, as well as its frequent use, has long been envisioned in past studies (Kim and Bonk, 2006), and nowadays, numerous options are accessible with regards to on-line courses in almost every field and subject. Moving to on-line classes has several benefits, such as reduced traveling expenses, not wasting time, and having access to education for all those in remote places (James, 2002). Therefore, we can expect that on-line learning and teaching systems have got the attention as well as the resources it has to flourish and will also be of great importance later on in education. The importance of this research study is based on its in-depth knowledge of students' and views about online classes, which instantly wants govt attention to minimize the deficits and make sure a successful online learning platform, permanently or temporarily.

- The teaching group and the learning group said online classes were good with regard to learning efficacy and knowledge transfer.
- Also, common negative feedback very few students said they were much more attentive in their on-line classes, possibly because of good situations in the home. This illustrates how learning settings are going to influence the quality of on-line teaching and learning systems.
- However, students have faced several mental and physical problems throughout these challenging times that greatly influence the teaching and learning systems procedure. Such issues need to be managed sensitively.
- The part of communication, as well as clearing uncertainties, must be made more efficient. Tools that help with that weren't used properly and required improvement.
- There's a need for more financial investment in technologies as well as fundamental infrastructure that will make sure uninhibited access to on-line classes for students is owned by all strata of society.

There are pre-existing research studies regarding the usefulness of on-line classes in online learning courses or any other student training programs. The situations of this research study are also distinctive, along with the shift to on-line classes that took place immediately without any plans in any way. The study deals with a number of issues associated with on-line classes, such as the quality of studying environments as well as mental and physical pressures that were highly relevant to that time. The immediate feedback we obtained from students from Institute of Health and Business Management Jinnah Sindh Medical University Karachi-Pakistan they had helped evaluate the crucial areas where

improvement is necessary. Hopefully, this research study will work as a basis for long-term future studies on a larger scale on the factors this study has described that will allow access to a new frontier within the academic field.

### ***The Problems of On-Line Learning and Teaching Throughout The COVID-19 Outbreak***

The learners emphasized that they experienced a number of problems during online learning because of the sudden move from face-to-face teaching to online learning. Students' answers demonstrated that they experienced a lot of problems. Firstly, students experienced an issue in adjusting themselves to online studying. They have faced many difficulties because of technical issues such as the deficiency of IT proficiency. Secondly, learners experienced a problem in having appropriate internet access for several reasons, for example, the cost of having a fiber network, which isn't economical for many students. The students also said that they experienced problems managing time and preparing their assignments to submit their work. Furthermore, a few learners have demonstrated that the shortage of interaction is also an issue for learners, exhibiting their personalities and progress (Adedoyin and Soykan, 2020).

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## APPENDIX

### *Likert Scale Questionnaire (Effect of Pandemic Based Online Education on Teaching and Learning Systems)*

#### *Demographic Questions*

##### **What is your gender?**

Male  Female  Other

##### **What is your age?**

18-24  25-44  45-54  55-64  
 65 or Above

##### **What is your Marital Status?**

Single  Married  Other

##### **What is your Qualification?**

Graduate  Bachelors' Degree  Others

##### **What is your location?**

Pakistan  Others

Sr.	Questions	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied
1	Is the sudden procedure of online classes being smooth?					
2	I was actively involved in online classes/lectures.					
3	I was more satisfied in online classes than our traditional classrooms.					
4	Online teaching has a lot of problems.					
5	Students were not attentive in online classes.					
6	Internet issue was a major issue in online teaching and learning systems.					
7	I could not communicate properly due to internet issues					



	and due to shortage of time during online learning.					
<b>8</b>	Learning and teaching systems are greatly affected by COVID-19 pandemic.					
<b>9</b>	I miss face-to-face classes during pandemic.					
<b>10</b>	The technology used during the pandemic's online learning and teaching systems were reliable.					
<b>11</b>	The flexibility that was provided during the online learning and teaching environment was more than our traditional classes.					
<b>12</b>	The communication with the teachers and class mates was easy in the chat groups.					
<b>13</b>	The use of multi-media apps for learning and teaching during COVID-19 was easy.					
<b>14</b>	I participated more in online classes than our conventional classroom.					
<b>15</b>	Instructions from the teachers were clear.					
<b>16</b>	Online presentations were not suitable and understandable.					
<b>17</b>	I feel that learning and teaching from home reduced the chances of getting COVID-19.					
<b>18</b>	Online learning and teaching system was safe for our health.					
<b>19</b>	I miss social interactions with my fellows during COVID-19.					

<b>20</b>	Online education was a good step from the govt. to continue our studies.					
<b>21</b>	We have faced problems during completing assignments.					
<b>22</b>	Proper access to the WI-FI (internet).					
<b>23</b>	Having easy access to the laptop or computer and other devices.					
<b>24</b>	I think I speak more in my conventional classroom than I write in the group chats.					
<b>25</b>	Online teaching was good than conventional classes.					
<b>26</b>	Login access to online class was easy.					
<b>27</b>	Transitioning from physical class to online classes increases the educational workload.					
<b>28</b>	Additional workload during COVID-19 has increased the stress of students.					
<b>29</b>	I feel comfortable to use social media apps/tools during online learning systems.					
<b>30</b>	I was already familiar with Zoom and Microsoft Teams.					