



PERCEPTION OF STUDENTS REGARDING THE SCHOOL EDUCATION SYSTEM POST COVID-19

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Abstract

The impact of COVID-19 on all aspects of human life throughout the world: be it social, cultural, economic or health, etc. is alarming. The education sector has been the worst hit, where all the educational institutions are forced to close down in order to minimize the rate of infections. In order to counteract the possible academic loss of the students due to the school closures, the option of online teaching gained momentum. Though immediate relief from the situation is not in sight, one has to remain hopeful. Once the schools reopen, what would be the new normal in the School system? And how do students perceive these new normal about the school education system? To analyse this question, the investigators researched upon the topic by studying the perception of the major stakeholders of education, that is, the students, regarding the Post COVID school education system. The data of 211 students was collected online through the Perception Scale uploaded on Google forms form secondary level students of private schools of Chandigarh and Punjab. The data was analysed using descriptive and inferential statistics. The results of the study showed that (i) around 47% students perceived that, Post COVID, the Teaching- Learning will shift towards online mode and approximately 30% perceived it to be in Traditional mode, (ii) around 43% perceived that school activities will follow online mode whereas around 36% perceived that school activities will remain as it was earlier, (iii) even for evaluation, around 59% perceived that online mode is more convenient mode and around 23% perceived that post COVID, evaluation will return to its original mode, and (iv) finally for school administration, around 78% students perceived that Post COVID school administration will be more cautious and follow COVID guidelines in school for the protection of everyone, whereas only 10% perceived that there will not be any need of COVID guidelines in schools. (v) There is no significant difference in the perception of boys and girls regarding the post COVID education system. The study showed the divided perception of students on various aspects of School education.

Key Words: Perception, COVID-19, Teaching- Learning, School Activities, Evaluation, School Administration.



Introduction

The global pandemic caused by the SARS-CoV-2 pathogen (Corona virus) has deeply impacted every sphere of human life throughout the globe. It has forced the nations to establish strict quarantine rules and go into national lockdowns to try and contain the spread of the virus. Such drastic measures have not only crippled their economies but have had a substantial negative impact on all the major services available to the public. The education system is among the hardest hit services throughout the world. Every level of educational institutions from primary schools to college and higher educational institutions were forced to remain closed during lockdowns. The United Nations Educational, Scientific and Cultural Organization (UNESCO) reported that “the nationwide closures have impacted over 60% of world’s student population. Several other countries have implemented localized closures impacting millions of additional learners”.

Even after easing certain restrictions, these institutions have not been opened due to the possible threat to the health and well-being of students and faculty alike. Under such unprecedented circumstances, educational institutions, especially schools worldwide, introduced various solutions to continue the educational process. Digital platforms such as online classes, webinars, and conferencing sessions have been introduced as a substitute for physical teaching. Mulenga & Marban (2020) in the study on *Zambian Universities* found that “the universities introduced e-learning platforms to enable their students to have continued access to lectures and assessments”. In India, especially the private institutions are conducting online classes for the students. “Even various government schemes like the PM e-Vidya platform which is a dedicated channel for the students of classes 1 to 12 are launched to promote e-learning and fill the gap in learning for the students,” (RSTV,2020). Sintema (2020b) highlighted that “The *Zambian Government* launched a TV channel dedicated to airing educational content in the form of lessons in various subjects for students”.

There is a sudden surge in online learning and activity portals too. So the children who were studying in traditional offline schools were suddenly exposed to long hours of screen time in front of a computer or television set. Andrew et.al. (2020) found that “primary and secondary level students were spending about 5 hours a day on average on home learning during the



lockdown. However, secondary level students are more likely to have online classes and spend their leisure time online”.

Although the online mode of learning has its own advantages like the flexibility of time, little to no commuting time and greater outreach to students, every activity cannot be shifted to digital means online. For example, sports and games, peer interactions and even the life skills students develop in the school indirectly. So the question arises, can digital-education replace the real-time school system completely? According to Patrinos & Shmis (2020) “technology can help mitigate the impact of COVID19 on education; how effectively will that occur will be known after the crisis.”

Review of Related Literature

Andrew *et al* (2020) write about children’s experience during home education and the prevalent inequalities related to digital infrastructure required for proper online-learning. According to the author, “there are at least three differentiating factors when it comes to online-learning”:

1. Schools provide different resources: some schools are delivering a full set of online lessons, while others are relying on home learning packs.
2. Families differ in the type of learning factor they can provide at home. Children from better-off families are spending 30% more time on online- learning and the students from those families have access to more resources for online-education. On an average, primary school students are engaged in learning activities (including reading) in just under 5 one-hour slots per day with 15% of students studying 8 or more one-hour slots in a day.
3. Parents differ in how much time and support they can offer their children while they are learning from home. Almost 60% of the parents of primary school and half of secondary school students report they are finding it difficult to support their children’s digital-learning at home. Income distribution is another micro-factor in this situation as more percentage of middle-income parents (~ 62%) is reporting this inconvenience.



This prevalent inequality among the students and parents alike correspond with other studies regarding the impact of COVID-19 on the population, inferring that “the young and the low-income earners have been hit the hardest” (Adams- Prassl et al. 2020).

Cahapay (2020) “attempted to rethink education in the New Normal Post COVID era from the perspective of curriculum”. He suggested some major shift in goals of education, especially in curriculum. This includes preparedness in the time of disaster and emergencies, integration of contents of different subjects to reduce overall time required and introducing the content which is significant, relevant and useful. The author further highlighted that during an era of social distancing practice, many schools are headed towards complete online modality or blended learning modality in instruction. Moreover, there is a clear shift towards online mode of evaluation; massive migration of learner assessment is inevitable in the Post COVID era.

Moralista & Oducado (2020) studied the perception of faculty towards online education in higher education during COVID19 pandemic. They found “faculty to be undecided and hesitant towards online education. Most of the faculty were of the view that on-line education lacks feeling as compared to face to face interaction. They perceived many challenges and difficulties in shifting to an on-line education setting during and post pandemic.”

Mulenga & Marbán (2020) studied “whether COVID 19 would be a gateway for digital learning in Mathematics education. Data was collected from prospective mathematics teachers from Copperbelt University (Zambia). They found that although there was variation in adoption of mobile technology and social media in relation to mathematics pedagogy, overall results favoured digital learning as a response to COVID19 situation”.

Sintema (2020) highlighted in his study the future of online education post-COVID-19 and its relevance during the present extraordinary situations. “The challenges caused by the corona virus will bring about new innovative opportunities for enhancing the online-education infrastructure for proper-learning in school education”. “He also adds that children are worse-off when it comes to technology in education, owing to the focus on higher education rather than primary and secondary school students, however the pandemic is bound to open up new online educational opportunities for them”.



Rationale of the Study

The pandemic of COVID-19 is very new to the world and is still prevailing, thus preventing the governments to open schools and other educational institutions. School administration, teachers, and students are struggling hard to continue the teaching-learning process through the digital mode. But what will happen once the situation improves? Will studying on-line from the comfort of the home become new normal for the children? Or the system regains its previous shape? Is the impact of COVID-19 on the school education system permanent or temporary? These are some of the unanswered questions which compelled the investigators to take up the study.

The following study aims to analyze the perception of school students regarding the Post COVID School Education System.

Objectives

The objectives of the present study are:

1. To study the perception of secondary school level students regarding the post-COVID-19 school education system.
2. To study the difference between the perception of secondary school level Girls and Boys students regarding the post-COVID-19 school education system.

Hypothesis

The hypothesis of the present study is:

- There is no significant difference between the perception of secondary school level Girls and Boys students regarding the post-COVID-19 school education system.

Delimitation of the Study

The study was delimited to secondary level students studying in different schools of Chandigarh and Punjab.

Sample of the Study

The population of the study was all the secondary school level students studying in private schools of Chandigarh and Punjab. The sample of 211 students was taken randomly from different schools of Chandigarh and Punjab.



Tools used for the Study

The investigators prepared the following scale for secondary school level students:

- Perception Scale of students regarding the Post-COVID-19 School Education System.

Design of the Study

Descriptive survey method was used to undertake the study.

Procedure and Data Collection

The study was conducted to study the perception of secondary level students regarding the post COVID-19 education system. The investigators constructed a Perception of Students scale regarding the Post COVID-19 Education System. After proper editing by language and technical experts, the investigators did individual and small group testing to bridge gaps. Thereafter, the data was collected through on-line mode by using Google Forms. The sample of 211 students from Chandigarh and Punjab were approached and their responses were tabulated and analysed for the present research. Finally, the results were derived.

Statistical Tools Used

Descriptive statistics, such as, mean and standard deviation and inferential statistics, such as, t-test were used to analyse the data.



Analysis of Data

I. Descriptive Statistics

Table 1: Percentage Perception of Students regarding Post Covid School Education System

Component	S. no.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Teaching-Learning	1	Online learning has little to no place for peer to peer discussions which are essential for proper learning.	4.90%	9.3%	29.40%	29.40%	27.00%
	2	Post-COVID, teachers will assume the role of mentors to facilitate learning rather than teaching only the content in the syllabus.	9.30%	11.70%	33.70%	22.90%	22.40%
	3	Following the pandemic, school attendance will not be made compulsory as students can join the class online.	16.20%	21.10%	17.60%	19.10%	26.00%
	4	Laptops and mobile phones will be allowed in school.	17.20%	19.60%	19.10%	16.20%	27.90%
	5	E-books and videos will replace the textbooks	18.60%	18.10%	23.00%	21.60%	18.60%
	6	Online classes will continue even after the school reopens	22.50%	24.00%	20.60%	18.60%	14.20%
	7	Self-learning module provides more flexibility for the students to learn at their own pace.	8.80%	10.80%	16.20%	27.50%	36.80%
		Average	13.93%	16.37%	22.80%	22.19%	24.70%
Activities	1	Individual games will be preferred over team sports	21.60%	16.70%	25.50%	19.10%	17.20%
	2	Co-curricular activities such as debating, discussions, performances, literary competitions, etc. will be shifted completely to online-medium.	15.70%	16.70%	20.60%	25.50%	21.60%
	3	Activities like annual functions will take a back-seat	15.70%	11.30%	16.70%	25.00%	31.40%
	4	Virtual tours will replace excursions and school picnics.	27.00%	19.10%	20.60%	19.10%	14.20%



		Average	20.00%	15.95%	20.85%	22.18%	21.10%
Evaluation	1	Offline exams will be replaced by online tests as these are more convenient to attempt	11.80%	17.60%	12.70%	27.90%	29.90%
	2	Open-book tests are an effective way of evaluating the students as there are no issues of cheating.	9.80%	13.70%	20.60%	17.60%	38.20%
	3	Online- Assignments will be preferred because they increase punctuality in school-work submission	7.80%	8.80%	19.10%	29.40%	34.80%
		Average	9.80%	13.37%	17.47%	24.97%	34.30%
School Administration	1	Students and school administration will be more cautious of sanitation	0.50%	2.00%	5.90%	21.60%	70.10%
	2	School timings (school hours) will be reduced	8.80%	9.80%	14.20%	24.50%	42.60%
	3	Schools will include protective gear such as masks and gloves as part of their compulsory uniform.	2.00%	3.90%	12.30%	29.40%	52.50%
	4	Private transports will be preferred over school transports for the commute.	4.40%	6.90%	13.20%	27.90%	47.50%
	5	The teacher-student ratio will decrease in classes to uphold social distancing guidelines.	3.40%	5.90%	14.70%	28.90%	47.10%
		Average	3.82%	5.70%	12.06%	26.46%	51.96%

Table 1 show the perception of secondary level students about the school education system in the coming days when the schools will reopen. The perception of students ranged from Teaching-Learning to School Activities, Evaluation and School administration.

The perception of students regarding the teaching-learning process in future was closely divided between shifting to online mode of teaching and continuing with traditional or offline mode of teaching and learning. 24.7% of sample students strongly perceived that the teaching-learning process will shift to online mode, 22.19% perceived, it will change to online mode but have



some doubt. Whereas, 13.93% strongly perceived that it will continue in traditional mode, 16.37% perceived it to be traditional mode but with some doubt. Further it showed that 45.3(22.9+22.4)% perceived that the role of teachers will change from just teaching content/ syllabus in classrooms to the role of mentor for guiding them how to learn, 45.1(19.1+26.0)% perceived that attendance in schools will not be made compulsory as they can join the classes online from anywhere they like, 44.10(27.9+16.2)% perceived that mobiles and laptops will be allowed in schools, 40.2(21.6+18.6)% perceived that e books and videos will replace text books, 32.8 (18.6+14.2)% perceived that online classes will continue even after the school reopens, 64.3 (27.5+36.8)% perceived that self learning modules will be used in future as they provide more flexibility and students learn at their own pace.

On the other hand, 21.0 (9.3+11.7)% perceived that in future there will not be any change in the role of teachers, 37.3 (16.2+21.1)% perceived that attendance will remain compulsory in schools, 36.8 (17.2+19.6)% perceived that laptops and mobiles will not be allowed in schools, 36.7 (18.6+18.1)% perceived that text books will not be replaced by e books or videos, 46.5 (22.5+24.0)% perceived that after the school reopens the classes will be in traditional mode, 19.6 (8.8+10.8)% disagreed that self learning modules will be used in future classrooms as they provide more flexibility and students learn at their own pace. Figure 1 also clearly shows the

graphical representation of the perception of students regarding Teaching-Learning Process.

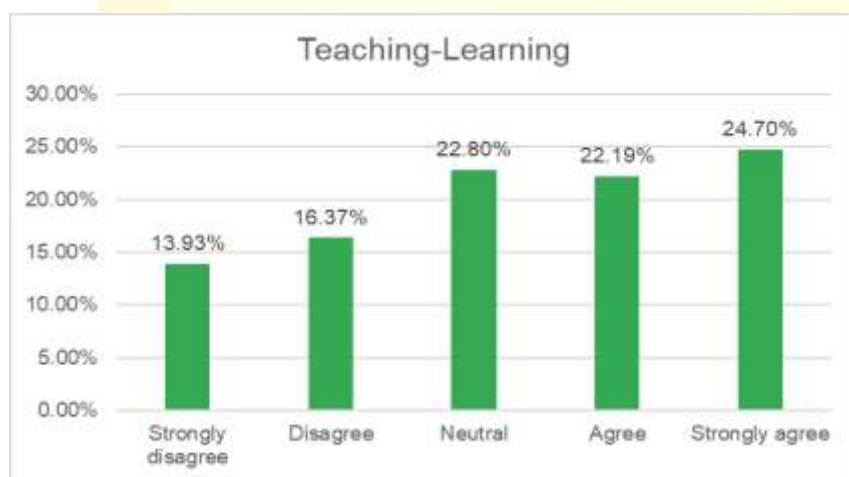


Figure 1: Perception of Students Regarding Teaching -Learning (Post COVID)



Table 1 also highlights the varied perceptions of Secondary School Students regarding the various curricular and co-curricular activities their respective school provides and their feasibility post-COVID 19. As illustrated in Figure 2, the question of co-curricular activities being conducted as in traditional form is a highly contested one with 21.10 % of students strongly perceiving a change from traditional method and 22.18% of them suggesting the same however with certain reservations. On the contrary, 15.95% of the participants believed co-curricular will be conducted in the same way and form as done in Pre COVID-19 times. Also 20% of them strongly perceived such a transformation to be unrealistic. Although the broader question is divided, secondary aspects of co-curricular activities show considerable consensus among the students. 36.3 (19.1+17.2) % of participants perceived the institutions favouring individual sports over team matches to minimise possible COVID-19 exposure. 47.1(25.5+21.6)% perceived that educational activities such as debates, declamations, literary competitions etc. will be reserved only for the online medium and 56.4(25+31.4)% of students perceived, all forms of activities will take a back seat in a post-pandemic world to minimize infections. 33.3(19.1 + 14.2) % also perceived that virtual tours using digital platforms will take over the traditional excursions and educational tours mechanism of the school systems.

On the contrary, 38.3(21.6+16.7)% of students perceive that preference of individual sports won't be increased and 32.4(15.7+16.7)% having no such perception of educational activities completely shifting to the online-sphere. 27(15.7+11.3)% of participants also disagree with the notion that all forms of activities like annual functions will be limited in a post-COVID school curriculum. 46.1(27+19.1) % of students also oppose the notion of shift towards educational tours and strongly suggesting that traditional excursions will be hosted by the schools.

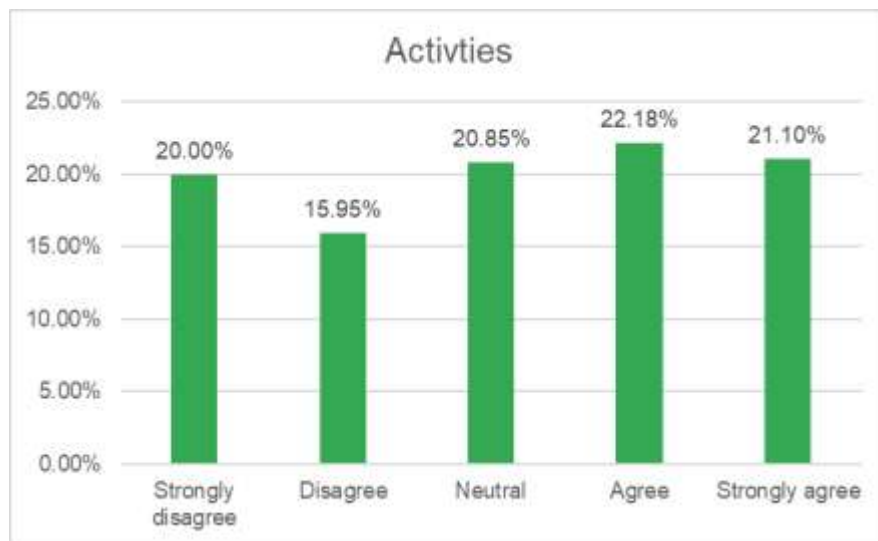


Figure 2: Perception of Students regarding School Activities (Post-COVID-19)

This section examines the perceptions of school students regarding the possible changes in the evaluation mechanism of school examinations. The central question revolving around the future of examinations is the idea of a more online-centric approach towards testing and evaluation. 34.3% students strongly perceived, such a transformation is impending and 24.97% perceived in the same albeit with minor reservations. However, 9.8% of responders strongly perceived no such change in the status quo and suggested that examinations will be primarily based on the same traditional procedure. 13.37 % of students also disagree with the possibility of a shift in the exam structures however are less certain to a certain degree.

Further elaborating, 57.8(29.9+27.9)% of students perceived that school authorities will replace the traditional examination procedure with an online-centric one as it is more convenient to operate and supervise for students and teachers respectively. 55.8(38.2+17.6)% also perceived that open-book examinations, which compliment the online testing structure are a better way of evaluating a student's performance as there are little chances of cheating or other such malpractices. 64.2(34.8+29.4)% participants also perceived that school systems will prefer online-assignments over traditional ones as they increase punctuality among the students. On other hand, 29.4(11.8+17.6)% students don't perceived a substantial shift towards online testing



and similarly 23.5(9.8+13.7)% don't share the opinion of open-book testing to be a viable option when it comes to proper evaluation of a child. 16.6(7.8+8.8) % responders perceived no preference towards online-assignments by school authorities.

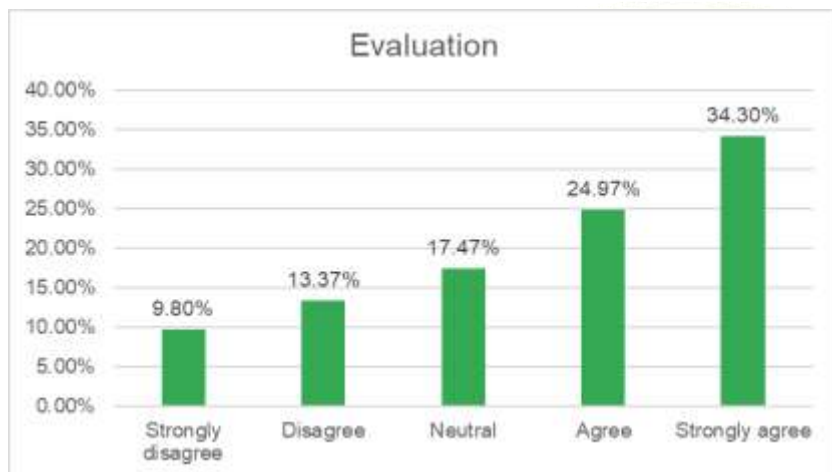


Figure 3: Perceptions of Students regarding Exam Evaluations (Post-COVID-19)

The Table I also delve into the question of overall management of schools and how social distancing and sanitation guidelines issued by governments and health experts will affect its administration. The various stances of students can be divided into categories of traditional functioning and protective administration. As highlighted in Figure 4, 51.96% students perceived all aspects of school's functioning will depend on key social distancing and disease prevention guidelines. With another 26.46% supporting that with a few caveats. 3.82% of responders fall under the traditional functioning criteria and strongly perceived that normal procedures of school administration will remain the same post-COVID and other 5.70% in additional support. A majority of perceptions for subsidiary questions fall under the protective governance pool as well. 91.7(70.1+21.6) % students believed that school authorities will be more cautious of sanitation levels in school premises whereas 0.7(0.5+0.2) % oppose that notion. 67.1(42.6+24.5) % participants perceived a reduction of the number of school hours in comparison to 18.6(8.8+9.8) % suggesting no such change. 81.9(52.5+29.4) % responders also perceived that schools will include protective gear such as masks, gloves etc. in their official school uniforms



and 5.9(3.9+2) % disagreed with that notion. 75.4(47.5+27.9) % suggested that private transports will be preferred over school transport for regular commute and 11.3(4.4+6.9)% students perceived no such shifts in mind. Lastly 76(47.1+28.9) % responders perceived a substantial decrease in the student-teacher ratio of every class as a part of adherence to social distancing guidelines while 9.3(3.4+5.9) % believe the ratio to remain constant even post-pandemic.

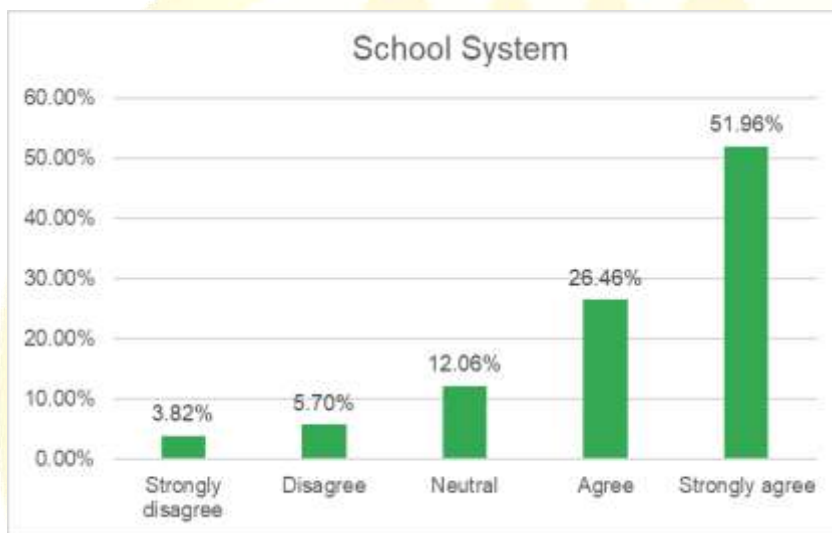


Figure 4: Perception of students regarding School Administration (Post-COVID-19)

Discussion

The varied perceptions of students can be broadly divided into two different stances. There is the opinion of schooling shifting towards the online sphere and the stance on schooling undergoing no considerable change from the traditional model prevalent in India. Upon going through the aggregates of each aspect of the questionnaire presented to higher secondary school students, a clear trend line in the different perceptions can be made. The Teaching-Learning aspect of education is contested between the online-centric and traditional stances and perceptions are somewhat equally divided. The perception of a digital shift in teaching however surpasses the traditional opinion by a slight margin of 10%. One possible explanation for such a result can be



inferred from the notion that “online learning does not differ considerably from traditional face-to-face classroom learning in terms of learning outcomes” (Allen & Seaman, 2010).

Students also are divided upon the question of curricular and co curricular activities going online-based as the students perceiving it to happen surpass the ones who don't by only a slight margin of 5%. Thus no clear assumption on the dominant perception can be accurately deduced with regards to school activities.

When it comes to evaluation, a majority of students (~ 60%) perceive that evaluation of student's performance will be substantially shifted towards online-medium. There may be a variety of reasons for the same. Predominantly based on the experience that online-platforms are more convenient modes of education, this perception goes in line with a number of studies highlighting the benefits of online-based education including the inference that “students become active learners rather than mere passive recipients of knowledge when the mode is shifted to digital”.(Candy *et al.*, 1994).

The responses for the School administration aspect are where a clear perceptive trend can be seen within the student population. Majority of responders(~80%) perceive substantial changes happening in school governance as part of adherence to social distancing and sanitation norms, as circulated by both National and State governments. Students perceived decrease in school hours, inclusion of protective gears in school uniforms and over-all changes to maintain social distancing and sanitation levels including preference of private transport for daily commuting and a decrease in teacher-student ratio in their respective classes. So from the results it is clear that students perceived substantial restrictions occurring in the school systems to counter the threat of the virus.

An overall cause of the somewhat balanced perceptions for both traditional and online-centric sides could be affiliated with a general uncertainty regarding the future of education for the school students, which in such extraordinary circumstances, can be a plausible situation. Another possible inference is the possibility that students are perceiving ‘blended-learning’ as the future of school education. Though there are nuances in its definition, “blended learning can be



commonly described as an instructional approach that integrates traditional classroom methods and online digital methods” (Graham, 2013). In such a situation, the balance between online and traditional education is maintained with certain aspects such as assignments and co-curricular activities shifting to online portals whereas nuanced aspects of teaching-learning remain more traditional.

II. Inferential Statistics

The hypothesis, “there is no significant difference between the perception of secondary school level Girls and Boys students regarding the post-COVID-19 school education system” was tested by administering the t-test.

	Gender	N	M	SD	SEM	DF	t-value	Level of significance
Perception	Boys	82	66.74	11.586	1.279	209	0.313	NS
	Girls	129	67.21	9.813	0.864			

Table 2: Mean Scores of Perception of Boys and Girls Students and t-ratio value

Table 2 shows the Mean values of the Perception Scores of Boys and Girl students, that is, 66.74 and 67.21 respectively. The t-value between the mean scores of perception between Boys and Girls students has been found to be 0.313 for 209 degrees of freedom, which is not significant at 0.05 level of significance. Thus the hypothesis, “There is no significant difference between the perception of secondary school level Girls and Boys students regarding the post-COVID-19 School Education System” has been accepted. This means that the Perception of Boys and Girls towards the Post Covid Education system seems to be similar.



Results and Conclusion

The results of the study showed that (i) Majority of the students(47%) perceived the Post COVID Teaching- Learning shifting towards online mode and one third students perceiving it to be in Traditional mode, (ii) around 43% perceived that school activities will also follow online mode whereas around 36% perceived that school activities will remain as it was earlier, (iii) Around 59% perceived that online mode is more convenient mode of evaluation as compared to around 23% and (iv) finally for school administration, around 78% students perceived that school administration will be more cautious and follow COVID guidelines in future as compared to 10%, who perceived that there will not be any need of COVID guidelines in schools. (v) There is no significant difference in the perception of boys and girls regarding the post COVID education system.

It has been concluded from the study that students are still unsure about the Post COVID era and hence their opinions are divided between on-line and traditional ways. But the majority of them are sure about the school administrative guidelines and regulations regarding the functioning of the school education system in the Post COVID era.

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