

# Effects of online class among parents of school students in Chennai - A questionnaire-based study

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#### **ABSTRACT**

**BACKGROUND:** In recent times to stop the spread of Coronavirus many Countries all over the world have implemented lockdown. That brought to a new phase of education which most & the economists and educators wanted, 'online learning'. This covid Pandemic facilitated a good pathway for industries to innovate and introduce numerous methods to facilitate online learning.

**AIM:** This study focuses on determining the effects of online class among parents in Chennai city.

**METHODOLOGY:** A Cross-sectional study was conducted online using Google forms to avoid spread of covid-19 through aerosols and inanimate objects(touch). 107 responded to the survey. The questionnaire includes demographic details and topic related questions. Binary logistic regression done to examine the combined effects of demographic details with questionnaires using SPSS version 23. The novelethod, chi-square test was done to correlate the outcomes. (p value less than 0.005 was considered significant).

**RESULT:** Around 110 were invited to the survey, out of that 107 responded to the survey(response rate is 97.2%). In which 63.6% were female between 40-50 age groups responded the most. In this majority were Home makers(20.6%) and 78.3% said these online classes are causing stress on them(p value is 0.036), as 72% of their children need their support during online classes(p value is 0.204).

**CONCLUSION:** Our study showed that online class is having a great impact on parents, especially on mothers, which is difficult for them during these tough situations where they have to multitask. Collaboration is the key to the mutual success of both the learners and learning leaders. As a parent, seeking support from the faculty will help build strong relationships and trust and thus ease the process of online education.

KEYWORDS: Covid-19, Effects, Impacts, Stress, Reopen, Novel method, Online class, Innovative technique.

#### INTRODUCTION

In recent times to stop the spread of Coronavirus many Countries all over the world have implemented lockdown. With 11M positive cases, "India is the first country in Asian continent before China. with the 10.7M recovered cases which is 100 times that of reported deaths i.e. 157k but still considered to be a deadly virus". It is caused by a tiny but mutated virus called Severe acute respiratory Syndrome Coronavirus -2 (SARS Cov-2)(1). First Case in India was reported on 30 January 2020. Due to the enormous spread, implementation of section 144 all over India was implemented by the end of March i.e., 13th of March. This is one of the biggest lockdowns faced by the world. By February 2, WHO announced it to be a global pandemic after the 10.3 M Confirmed cases in the USA, which resulted in the global shut down of schools and Colleges(2). That brought to a new phase of education which most & the economists and educators wanted, 'online learning'. This covid Pandemic facilitated a good pathway for industries to innovate(3).

Technologies and softwares to make online learning easily made available at a lower cost(as India has a low economy). TV channels started telecasting educational classes for the poor and low economic strata of the society. (4).

Some of the platforms used during lockdown for online education are Google classroom, Zoom, whatsapp, google meet, microsoft teams, etc(5)

Even with these advances in technologies for online learning, there were few drawbacks(table 1). As a coin has two sides, online learning also has two sides(6,7).

**TABLE 1:** ADVANTAGES AND DISADVANTAGES OF ONLINE CLASS

# Strength:

Anywhere- one of the main advantages of online class is, a student can attend the class even from any part of the world. It also provides a greater advantage to physically disabled students.

Anytime, Any pace- these classes are available for 24/7 and time efficiency is the important strength of online class. Some websites provide pre shoot videos that are even free of cost.

Synergy- these classes allow a full fletch interaction between instructor and students themselves.

Student centered- during online class an individual can respond to a question without any fear, as other students can't tease them as the instructor can take full control over the class(Murphy, Dufour, and Gray 2021; Stearns 1871).

### Weakness:

Equity and availability of technology- As online classes need technologies like computers, mobile phones, etc. many students in India can't afford them.

Computer literacy- the student as well as instructor should have a basic knowledge on computers.

Limitation of technologies- still in many villages of India there is no mobile connectivity and computer availability.

Level of synergy- online class promises to provide a greater level of synergy but during larger webinar levels get shifted down.

This limitation of availability of technologies is seen only by poor peoples but the middle class won't have most of these limitations as most of them have enough resources to afford them. Rather they feel stressed by long hour lectures in laptops and mobile phones, which can cause stress and tension, which motivates them to bunking their classes. This was so hard and stressful on their parents(8). So parents started to focus on their education. They started sitting with them during class to make them observe their class. Parents also started helping them in many ways like teaching them, distressing them to make them focus on their education.(9). The potential of online classes is more than what we know, it may have side effects or not but it's a new era of learning. So there will be improvements in it in the future(10). But for a while parents have to bear these impacts or find a way to become distressed.(11)

All socialists are concerned only about the stress and pressure faced by students, but very less concerned about the parents' side, they have to work multiple shifts to maintain stable income, have to take care of house, taxation, etc..(12). Is added engagement required from parents in online learning?. If Students see their parents as their greatest cheerleaders and coaches, knowing a coach won't be misleading or overly positive, but constructive and goal-oriented(13). Even though parents feel their head full they should tend to involve and try to be a better coach than feeling stress. If a parent who is overly supportive can strip a student of their opportunity to learn and succeed on their own. Our team has extensive knowledge and research experience that has translated into high quality publications(14–19)(20–27). The present study aimed to find the impact of online classes on the parents to find the difficulties they faced during the pandemic.

#### **METHODOLOGY**

**STUDY SETTING:** Our study is an online based questionnaire done in a private dental institution in chennai. The survey questionnaires were made using Google forms. These forms were shared through whatsapp and emails to avoid the spread of coronavirus via aerosols and inanimate objects(touch). The data were collected and stored privately.

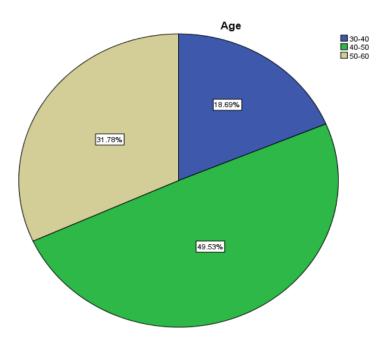
**Statistical analysis:** All data were collected and stored privately to avoid any information theft. All the data were collected and tabulated in the form of an EXCEL sheet which was then processed by using SPSS

Version 23 IBM(statistical package of social science) software. The pie charts and logist bar graphs were made. Chi-square test was done to correlate the effects demographics and questionnaires. P value less than 0.05 is considered to be significant.

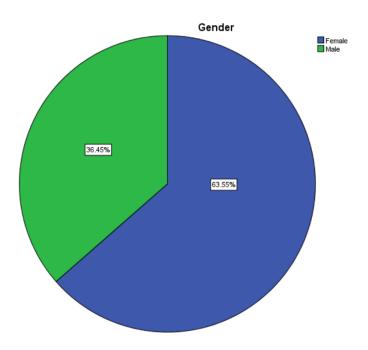
#### **RESULT**

The increasing use of online classes can increase the impacts not only on students but also on parents. Our study was performed to find whether there is any stress impact on parents due to online class.

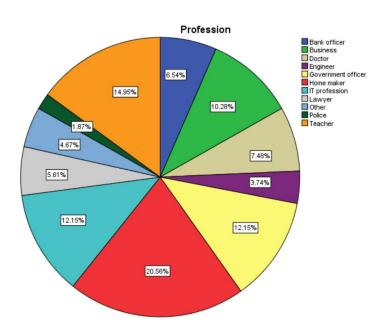
107 responded to the survey. out of which 63.67% is female and 36.51% is male(figure 2). Around 49.57% belong to the age group of 40-50(figure 1), 18.7% are 30-40 and 31.87% are 50-60 years. Most of them were Homemakers (20.64%), 12.17% each were government officers and IT Professionals, 10.3% were doing Business, 7.5% were doctors and the rest belonged to police, lawyers, Bank officers and Teachers(figure 3). Around 72.9% were working onsite & 27.1% were working from home(figure 4). 26.2%. think online Classes are efficient, 73.1%think it's not effective. 81.3% think it's not more effective than that of offline class. 72% responded that their child needs their support during online class(figure 5 and 9). Most of the parents teach their children (23.44%), 11.2% distressing them, 12.1% write homework for them and 44.9% do all these things. 76.6% think their attention during classes did not improve but 23.4% think it's improved(figure 7 and 10). 78.5% responded that their child's online class is causing stress on them (figure 6 and 11). 74.7% of parents think school work is difficult to complete. 83.2% responded that schools needed to reopen as soon as possible(figure 8 and 12).



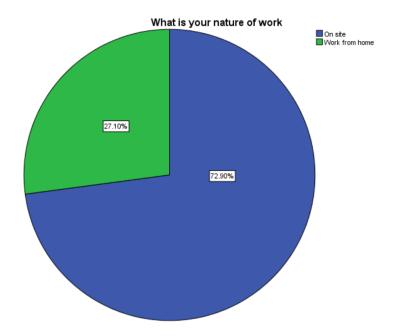
**FIG 1:** This graph shows the age group of participants. 18.6% belong to the age group 30-40(blue), 49.5% belong to 40-50(green) and 31.7% belong to 50-60(yellow). Majority of participants belong to the age group 30-40 years.



**FIG 2:** This graph shows the gender division of the participants. 63.5% are female (blue) and 36.4% male (green). Majority of the participants were females.



**FIG 3:** This graph shows the profession of the parents. 20.5% are homemakers(red), 12.1% each are government officers(yellow) and IT professionals(blue), 14.9% are teachers, 10.2% are doing business(green), the rest are working as engineers, lawyers, police, doctors, bank officers and others. Majority of the participants were home makers.



**FIG 4:** The graph shows the nature of work. 72.9% have an on site job(blue) and 27.1% have work from home type job(green). Majority of the participants had worked on site.

# **Chi-square test:**

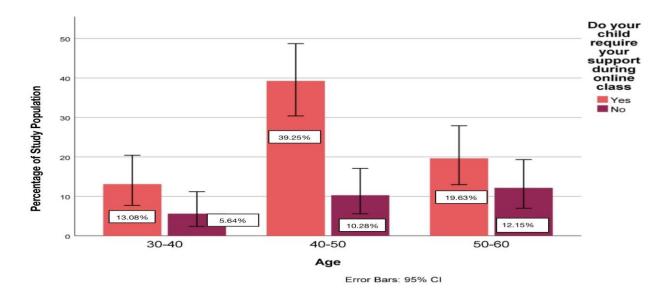
We have compared demographic details with questionnaires using chi-square test and extracted the details in the form of logistic bar graphs.

# With Age:

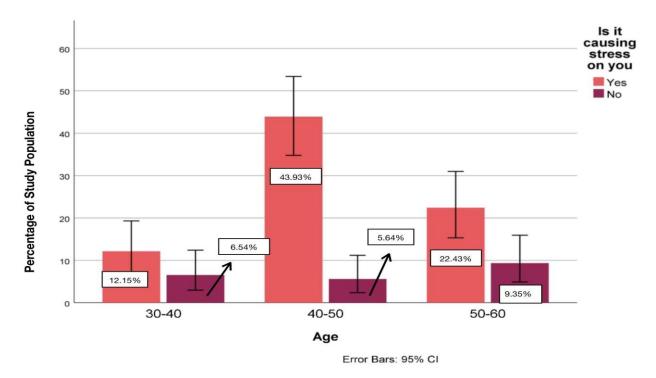
- Do your children require your support during online class?
- Has the attention of your child improved?
- Is it causing stress on you?
- Do you think schools need to reopen?

# With gender:

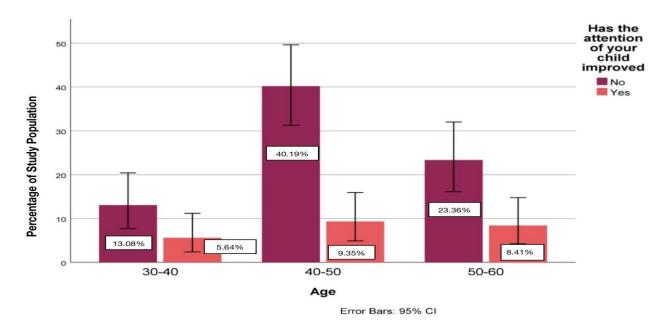
- Do your children require your support during online class?
- Has the attention of your child improved?
- Is it causing stress on you?
- Do you think schools need to reopen?



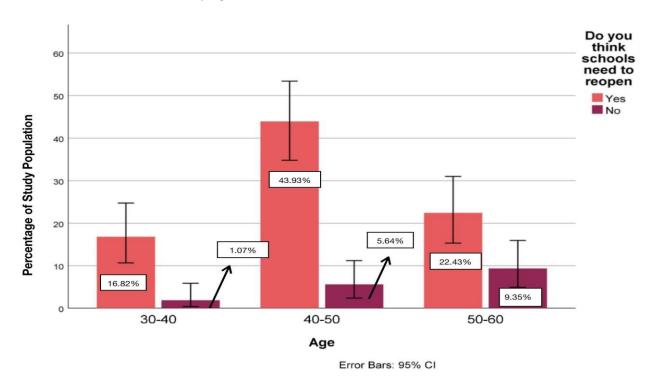
**FIG 5:** The graph depicts the association between age of parents and does their child require their support. X-axis represents age and Y-axis represents whether their child requires their support. Orange represents yes and Maroon represents no. Most of the parents think online classes are not effective. P value is 0.204(p value > 0.05).Hence, it's statistically not significant.



**FIG 6:** The graph shows the association age and whether online class is causing stress on them. X-axis represents age and Y-axis represents whether online class is causing stress. Orange represents yes and maroon represents no. Most say it's causing stress on them. P value is 0.036(P value > 0.05).Hence, it's statistically significant.



**FIG 7:** The graph shows the association age and does their child's concentration improve. X-axis represents age and Y-axis represents whether their child's concentration has improved. Orange represents yes and maroon represents no. Most say their child's concentration has not improved. P value is 0.529(P value > 0.05). Hence, it's not statistically significant.



**FIG 8:** The graph shows the association age and thought on school to reopen. X-axis represents age and Y-axis represents thought on school to reopen. Orange represents yes and maroon represents no. Most say schools should reopen. P value is 0.059(P value > 0.05). Hence, it's statistically significant.

### **DISCUSSION**

The current pandemic situation has made a great impact on the education system, one of which is online learning. Innovation in all fields is important but education is necessary. As this is the foundation for each and every field, today's students are tomorrow's innovators. So making a foundation strong helps build better grades. Making their child an innovator is the dream of every parent, in that path they face many problems, one of which is the introduction of online classes. This is the beginning of a new innovation, so it will have many pros and cons which will be solved in the future by research and innovative methods. So the problems of today can be the path to a new discovery of tomorrow.

In the present study 63.67% is female and 36.51% is male which was found to be similar with(figure2) (11)Homemakers (20.64%), 12.17% each were government officers and IT Professionals, 10.3% were doing Business, 7.5% were doctors and the rest belonged to police, lawyers, Bank officers and Teachers that found to be similar with (figure3)(11). 26.2%. think online Classes are efficient, 73.1%think it's not effective, this is similar to (Chee, Ming-mu, and Chee, n.d.) survey. 83.2% responded that schools needed to reopen as soon as possible, which was found to be similar to(figure 8)(28). This study also compared results with previous articles to give a proper comparison of results. 73.8% think online classes are not effective, which is similar to(29). 78.5% responded that online classes are causing stress on them that is similar to (figure 6)(30).

The respondents were well educated and from high economic status with good awareness and knowledge about Covid pandemic and vaccines. So the results can comphrehent only with high socio economic people in Chennai. And since the study was done in a small sample size, future studies need to be done in a large sample size and people from all economic status. Also, due to Covid pandemic and its fear of spreading through aerosols and inanimate objects, an online based survey was chosen, which can affect the accuracy and the result of the study. This study allows us to know about the impacts and stress the parents are faced by the emerging online classes. So this allows socialists and educational institutions to take steps to reduce school pressure or promote some exercise to eliminate the stress that's causing both parents as well as students.

# **CONCLUSION**

Our study showed that online classes are having a great impact on parents, especially on mothers, which is difficult for them during these tough situations where they have to multitask. Collaboration is the key to the mutual success of both the learners and learning leaders. As a parent, seeking support from the faculty will help build strong relationships and trust and thus ease the process of online education.

# **ACKNOWLEDGEMENT**

Saveetha Dental college and Hospital , Saveetha institute of medical and technical science , Saveetha university

#### **AUTHOR'S CONTRIBUTION**

Ilamaran - Literature collection,

Abilasha - framing the manuscript, Statistics approval, approval of the manuscript

Lakshmi - Final approval of the manuscript.

# CONFLICT OF INTEREST: Nil SOURCE OF FUNDING:

The present study was supported by the following agencies

- Saveetha Institute of Medical and Technical Sciences
- Saveetha Dental College and Hospitals
- Saveetha University
- Tiles and Tiles, Chennai.

#### **REFERENCES**

- 1. Senatore V, Zarra T, Buonerba A, Choo K-H, Hasan SW, Korshin G, et al. Indoor versus outdoor transmission of SARS-COV-2: environmental factors in virus spread and underestimated sources of risk. EuroMediterr J Environ Integr. 2021 Feb 10;6(1):30.
- 2. Mullins E, Hudak ML, Banerjee J, Getzlaff T, Townson J, Barnette K, et al. Pregnancy and neonatal outcomes of COVID-19 co-reporting of common outcomes from the PAN-COVID and AAP SONPM registry [Internet]. Available from: http://dx.doi.org/10.1101/2021.01.06.21249325
- 3. Beijaard D. Professional challenges for teachers and their educators [Internet]. Vol. 21, Teachers and Teaching. 2015. p. 923–5. Available from: http://dx.doi.org/10.1080/13540602.2015.1005863
- 4. Wu G, Liu Y, Yang Z, Jiang T, Katakam N, Rouh H, et al. Enantioselective assembly of multi-layer chirality. Natl Sci Rev. 2020 Mar;7(3):588–99.
- 5. Ali A, Ali TE, Kerr K, Ali SB. Knowledge, Attitudes, and Practices With Respect to Epilepsy Questionnaire [Internet]. PsycTESTS Dataset. 2013. Available from: http://dx.doi.org/10.1037/t21959-000
- Mullins E, Hudak ML, Banerjee J, Getzlaff T, Townson J, Barnette K, et al. Pregnancy and neonatal outcomes of COVID-19: co-reporting of common outcomes from PAN-COVID and AAP SONPM registries. Ultrasound Obstet Gynecol [Internet]. 2021 Feb 23; Available from: http://dx.doi.org/10.1002/uog.23619
- 7. Li J, Zhan D, Zhou Y, Gao X. Loneliness and problematic mobile phone use among adolescents during the COVID-19 pandemic: The roles of escape motivation and self-control. Addict Behav. 2021 Feb 11;118:106857.

- 8. Wilhite K, Jones M, Kebodeaux C. PaCE Yourself: Impact of COVID-19 on Patient-Centered Care Experience [Internet]. Vol. 9, Pharmacy. 2021. p. 43. Available from: http://dx.doi.org/10.3390/pharmacy9010043
- 9. Davidov G, Langille B. Understanding Labour Law: A Timeless Idea, a Timed-Out Idea, or an Idea Whose Time has Now Come? [Internet]. The Idea of Labour Law. 2011. p. 1–11. Available from: http://dx.doi.org/10.1093/acprof:oso/9780199693610.003.0001
- Buatois S, Ueckert S, Frey N, Retout S, Mentré F. cLRT-Mod: An efficient methodology for pharmacometric model-based analysis of longitudinal phase II dose finding studies under model uncertainty. Stat Med [Internet]. 2021 Mar 2; Available from: http://dx.doi.org/10.1002/sim.8913
- 11. Chee M-MA, Ming-mu, Chee A. Stress of parents with autistic children [Internet]. Available from: http://dx.doi.org/10.5353/th\_b3124888
- 12. Network NCTS, National Child Traumatic Stress Network. Medical Traumatic Stress: Suggested Resources for Parents [Internet]. PsycEXTRA Dataset. Available from: http://dx.doi.org/10.1037/e402892005-001
- 13. Bachkirova T. Understanding yourself as a coach [Internet]. The Coaches' Handbook. 2020. p. 39–47. Available from: http://dx.doi.org/10.4324/9781003089889-6
- 14. Princeton B, Santhakumar P, Prathap L. Awareness on Preventive Measures taken by Health Care Professionals Attending COVID-19 Patients among Dental Students. Eur J Dent. 2020 Dec;14(S 01):S105–9.
- 15. Mathew MG, Samuel SR, Soni AJ, Roopa KB. Evaluation of adhesion of Streptococcus mutans, plaque accumulation on zirconia and stainless steel crowns, and surrounding gingival inflammation in primary molars: randomized controlled trial. Clin Oral Investig. 2020 Sep;24(9):3275–80.
- 16. Sridharan G, Ramani P, Patankar S, Vijayaraghavan R. Evaluation of salivary metabolomics in oral leukoplakia and oral squamous cell carcinoma. J Oral Pathol Med. 2019 Apr;48(4):299–306.
- 17. R H, Hannah R, Ramani P, Ramanathan A, Jancy MR, Gheena S, et al. CYP2 C9 polymorphism among patients with oral squamous cell carcinoma and its role in altering the metabolism of benzo[a]pyrene [Internet]. Vol. 130, Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology. 2020. p. 306–12. Available from: http://dx.doi.org/10.1016/j.oooo.2020.06.021
- 18. Antony JVM, Ramani P, Ramasubramanian A, Sukumaran G. Particle size penetration rate and effects of smoke and smokeless tobacco products An invitro analysis. Heliyon. 2021 Mar;7(3):e06455.
- 19. Sarode SC, Gondivkar S, Sarode GS, Gadbail A, Yuwanati M. Hybrid oral potentially malignant disorder: A neglected fact in oral submucous fibrosis. Oral Oncol. 2021 Jun 16;105390.

- Alsawalha M, Rao CV, Al-Subaie AM, Haque SKM, Veeraraghavan VP, Surapaneni KM. Novel mathematical modelling of Saudi Arabian natural diatomite clay [Internet]. Vol. 6, Materials Research Express. 2019. p. 105531. Available from: http://dx.doi.org/10.1088/2053-1591/ab2f9b
- 21. Tang X, Yu J, Li M, Zhan D, Shi C, Fang L, et al. Inhibitory effects of triterpenoid betulin on inflammatory mediators inducible nitric oxide synthase, cyclooxygenase-2, tumor necrosis factoralpha, interleukin-6, and proliferating cell nuclear antigen in 1,2-dimethylhydrazine-induced rat colon carcinogenesis [Internet]. Vol. 16, Pharmacognosy Magazine. 2020. p. 841. Available from: http://dx.doi.org/10.4103/pm.pm 516 19
- 22. Hobkirk JA, Gill DS, Jones SP, Hemmings KW, Steven Bassi G, O'Donnell AL, et al. Hypodontia: A Team Approach to Management. John Wiley & Sons; 2010. 208 p.
- 23. Zafar A, Sherlin HJ, Jayaraj G, Ramani P, Don KR, Santhanam A. Diagnostic utility of touch imprint cytology for intraoperative assessment of surgical margins and sentinel lymph nodes in oral squamous cell carcinoma patients using four different cytological stains. Diagn Cytopathol. 2020 Feb;48(2):101–10.
- 24. Karunagaran M, Murali P, Palaniappan V, Sivapathasundharam B. Expression and distribution pattern of podoplanin in oral submucous fibrosis with varying degrees of dysplasia an immunohistochemical study [Internet]. Vol. 42, Journal of Histotechnology. 2019. p. 80–6. Available from: http://dx.doi.org/10.1080/01478885.2019.1594543
- 25. Sarode SC, Gondivkar S, Gadbail A, Sarode GS, Yuwanati M. Oral submucous fibrosis and heterogeneity in outcome measures: a critical viewpoint. Future Oncol. 2021 Jun;17(17):2123–6.
- 26. Raj Preeth D, Saravanan S, Shairam M, Selvakumar N, Selestin Raja I, Dhanasekaran A, et al. Bioactive Zinc(II) complex incorporated PCL/gelatin electrospun nanofiber enhanced bone tissue regeneration. Eur J Pharm Sci. 2021 May 1;160:105768.
- 27. Dai Y, Prithiviraj N, Gan J, Zhang XA, Yan J. Tissue Extract Fractions from Starfish Undergoing Regeneration Promote Wound Healing and Lower Jaw Blastema Regeneration of Zebrafish [Internet]. Vol. 6, Scientific Reports. 2016. Available from: http://dx.doi.org/10.1038/srep38693
- 28. Chao FL, Department Of Industrial Design, Chaoyang University Of Technology, Taiwan. Observations on Accomplished COVID-19 School Reopen in Taiwan [Internet]. Vol. 6, Clinical Immunology and Immunotherapy. 2020. p. 1–3. Available from: http://dx.doi.org/10.24966/ciit-8844/1000033
- 29. Brooks JS. The Dark Side of School Reform: Teaching in the Space Between Reality and Utopia. 2006. 199 p.
- 30. Online Classes during COVID-19 Pandemic: Anxiety, Stress & Depression among University Students [Internet]. Indian Journal of Forensic Medicine & Toxicology. 2021. Available from: