Original Article

Experience of Online Classes/Work from Home among People of Different Age Groups during the COVID-19 Pandemic – A Global Perspective

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Abstract

Introduction: COVID-19 had a serious influence on teachers, educators, students, administrators, and employees around the world on almost all aspects of their daily lives. Various educational institutions and work organizations worldwide had chosen to use the available technological tools and techniques to work online with students and employees from various disciplines and fields.

Purpose: The purpose of the present research was to study the experience of online classes/work from home among different age groups during the COVID-19 pandemic in various parts of the world and to determine the usefulness of online mode and its future implications.

Materials and Methods: An online questionnaire was developed and shared with people of different age groups; 12–22 years, 23–35 years, 36–50 years, 51 years, and above living across different parts of the world. 30 responses were randomly selected from each age group and statistical analysis was done for 120 responses in all. The statistical analysis was performed for the data obtained using SPSS 21.0 (SPSS Inc., Chicago, IL, USA). Chi-square test was used to examine differences in responses to the questions. The significance level was set at $P < 0.05$.

Results: The analysis indicated that the difference in responses to different questions for different age groups was significant only for one question that was related to staying focused online. However, the difference in responses to all the questions was significant when age group was not taken into consideration.

Conclusion: The overall experience with online learning/working was on a positive side and can be utilized by the academicians and administrators in planning the learning/working environment for achieving the optimum results/outputs. Hybrid learning and work flexible approach have a promising future in times to come and could change the way people think, learn, and work.

Key words: COVID-19, Experience, Home, Learning, Online, Work

INTRODUCTION

The COVID-19 pandemic caused catastrophe all over the globe and had a significant impact on the lives of all age groups of people and the way they lived. Undoubtedly, COVID-19 had a serious influence on teachers, educators, students, administrators, and various employees around the world, especially almost all aspects of their daily lives.[1] In order to address this situation, various sectors all over the world opted for an online or remote approach with technology as a contact mediator to replace offline or face-to-face approach. Many colleges, schools, and organizations across the globe were shut down during the pandemic to allow students and employees to employ social distancing policies. However, it was almost impossible to switch seamlessly from a traditional to the virtual learning/working environment overnight. This rapid transition was connected to many obstacles and challenges.[2] Various educational institutions and work organizations worldwide have chosen to use the available technological tools and techniques to work online with students and employees from various disciplines and fields.

Academicians, employees, students, and administrators experienced stress due to work from home. Forced stay

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at home, work from home with family members, online school for kids at home, and significantly reduced social interactions contributed to the increased stress. Continuous work under stressful conditions might have had a great impact on the daily work and sleep hours. In addition, they required access and training to adapt to latest information technology (IT) tools and methods as an additional stress factor. The above-mentioned factors could have led to long-term stress, thus affecting the physical and mental health of the people.[3] People from different age groups would have experienced their own particular set of challenges.

However, as people gained experience to learn/work online through necessity, the ability to use various IT tools and methods definitely increased. Furthermore, there were other advantages like flexibility and more time to occupy in other meaningful activities.[4]

The objectives of the present research were to study the experience of online classes/work from home for different age groups during the COVID-19 pandemic in various parts of the world and to determine the usefulness of online mode and its future implications.

MATERIALS AND METHODS

Online platform was used to conduct the cross-sectional survey. The survey was conducted with the help of a Google form. The questionnaire had 10 questions related to the online experience with five-point response scale where 1 indicated "Strongly No," 2 was "No," 3 represented "Can't Say," 4 was "Yes," and 5 indicated "Strongly Yes." Online questionnaire was circulated by sharing the link of the Google form through social networking sites among friends, family friends, and relatives living in different parts of the world. The participants were also encouraged to forward the survey link to others to increase the number of respondents. Responses were received from different parts of India, Kingdom of Saudi Arabia, United States of America, United Kingdom, Malaysia, Oman, United Arab Emirates, Egypt, North Africa, Australia, New Zealand, and Mauritius.

The responses were recorded from people with four different age groups; 12–22 years, 23–35 years, 36–50 years, 51 years, and above. A total of 146 responses were obtained. 30 responses were randomly selected from each age group and statistical analysis was done for 120 responses in all. Pie-charts were prepared for the responses obtained for all the questions. The statistical analysis was performed for the data obtained using SPSS 21.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics were generated, and Chi-square test was used to examine differences in responses to the questions. The significance level was set at $P < 0.05$.

RESULTS

Detailed analysis of each question of the survey related to the online experience was done with the help of data depicted through pie-charts and revisiting the Excel sheet.

As related to question 1 (Q1: Do you enjoy learning/working remotely?): Analysis of the survey data showed that 48% of the participants enjoyed, 16% strongly enjoyed whereas 19% of the participants did not enjoy learning/working remotely. In all, 64% (48% + 16%) of participants of different age groups enjoyed learning/working online, 20% (19% + 1%) did not enjoy while remaining 16% were neutral [Figure 1].

Regarding question 2 (Q2: Was you remote learning/working effective?): 45% of the respondents agreed that the remote learning/working was effective and 19% disagreed. Overall, 58% (45% + 13%) of the responders found online learning/working effective, 20% (19% + 1%) did not find it effective, and 22% were not sure [Figure 2].

For question 3 (Q3: Has the online mode been a restrictor in your communication with your peers/colleagues/teachers?): Almost the same percentages of participants agreed (38%) and disagreed (36%) that the online mode had been a restrictor in their communication with their
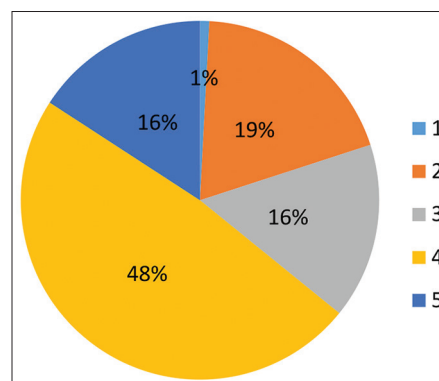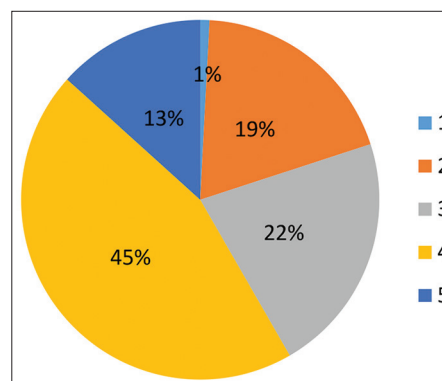

Figure 1: Distribution of responses for Q1

Figure 2: Distribution of responses for Q2

peers/colleagues/teachers. In total, 47% (38% + 9%) of the participants agreed, 40% (36% + 4%) disagreed, and 13% were indecisive [Figure 3].

As related to question 4 (Q4: Have online tools improved your learning/working experience?): Around half (49%) of the responders' agreed and 16% strongly agreed that the online tools improved their learning/working experience. 17% of participants disagreed about the same. In all, 65% (49% + 16%) of the responders agreed, 18% (17% + 1%) disagreed, and 17% were neutral [Figure 4].

Regarding question 5 (Q5: Do you prefer learning/working offline over online?): 29% of the participants preferred and 9% strongly preferred learning/working offline over online. 36% preferred and 12% strongly preferred online mode. Overall, 36% (29% + 7%) of the participants disagreed for online mode, 48% (36% + 12%) agreed, and 16% were not sure [Figure 5].

For question 6 (Q6: Was it difficult for you to access online tools and devices for your learning/work?): More than half (58%) of the responders disagreed and 12% strongly disagreed with the fact that it was difficult for them to access online tools and devices for learning/work. 18% agreed with the fact. In total, 70% (58% + 12%) of the participants did not find it difficult to access online tools and devices, 21%

(18% + 3%) found it difficult, and 9% could not decide. Least number of responders who disagreed were from age group; 51 years and above [Figure 6].

Related to question 7 (Q7: Was it difficult for you to stay focused online?): Approximately the same number of responders agreed (36%) and disagreed (34%) that it was difficult for them to stay focused online. In all, 44% (36% + 8%) found it difficult to stay focused online, 46% (34% + 12%) did not find it difficult, and 10% were neutral. Least number of responders who agreed and maximum number of responders who disagreed were from the age group; 51 years and above [Figure 7].
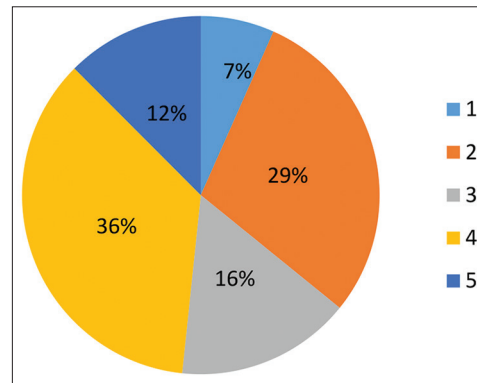
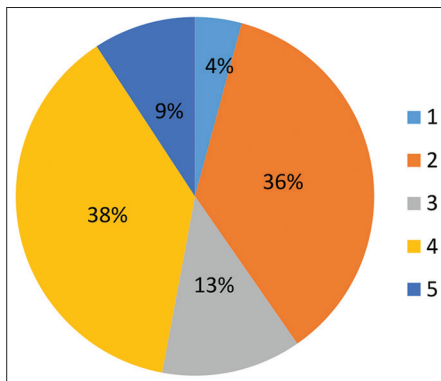

Figure 5: Distribution of responses for Q5

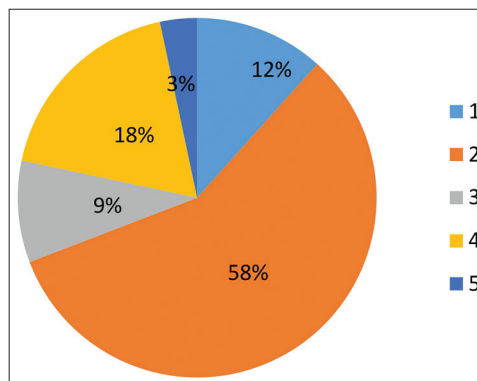**Figure 3: Distribution of responses for Q3**

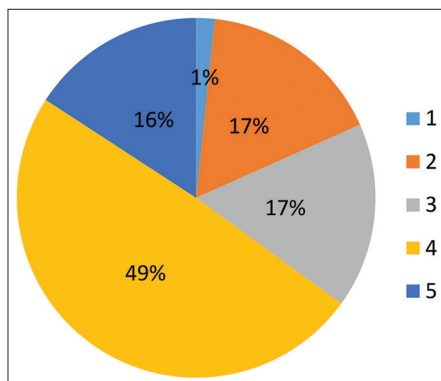**Figure 6: Distribution of responses for Q6**

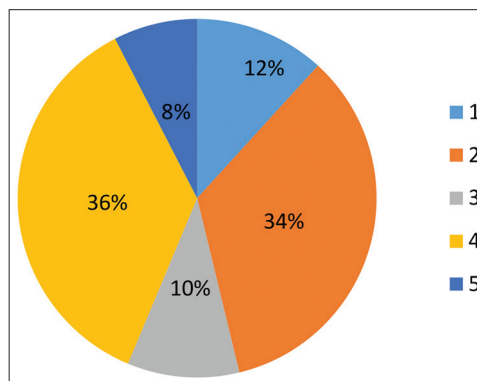
Figure 4: Distribution of responses for Q4

Figure 7: Distribution of responses for Q7

Regarding question 8 (Q8: Do you face any health problems due to working online?): 43% of the participants disagreed, 11% strongly disagreed, 31% agreed and 2% strongly agreed to the fact that they faced any health problems due to learning/working online. Overall, 54% (43% + 11%) of the participants didn't face any health problems due to online mode, 33% (31% + 2%) faced health problems and 13% were not sure [Figure 8].

For question 9 (Q9: Do you face any problems during work/learning due to house environment?): 38% of the responders agreed and 5% strongly agreed that they faced problems during online work/learning due to house environment. 43% disagreed and 8% strongly disagreed. In total, 43% (38% + 5%) of the responders faced problems due to house environment, 51% (43% + 8%) did not face any problems, and 6% were neutral [Figure 9].

As related to question 10 (Q10: On a scale of 1–5, rate your overall remote learning/working experience.): On a scale of 1–5, most (42%) of the participants rated their overall remote learning/working experience as 3 followed by a score of 4 by 33%, 5 by 13%, 2 by 9%, and 1 by only 3% of the participants. It indicates that 88% (42% + 33% + 13%) of the participants gave average and above overall rating for online mode [Figure 10].

Not much difference in responses for various questions was noticed for different age groups except for those mentioned above.

The data were then subjected to inferential/significance analysis using Chi-square test. The analysis indicated that the difference in responses to different questions for different age groups was significant only for one question that was related to staying focused online [Table 1]. All the age groups found it more difficult to stay focused online as compared to people from age group 51 years and above. However, the difference in responses to all the questions was significant when age group was not taken into consideration [Table 2].

DISCUSSION

The present research was conducted to uncover the experience of online classes/work from home during the COVID-19 pandemic in various parts of the world. Factors related to online learning/working that were included in the present study were enjoyment, effectiveness, effect on communication, preference over offline mode, role of online tools and devices, staying focused, associated health problems, effect of house environment, and overall experience. An online questionnaire was developed and shared with peers, family friends, and relatives living across
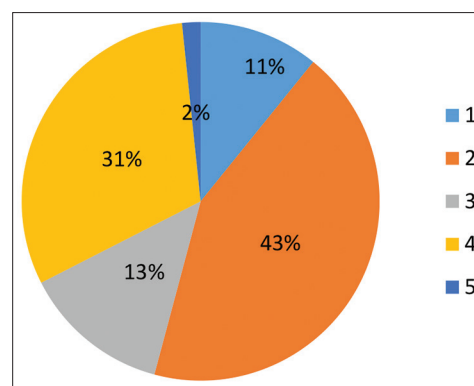

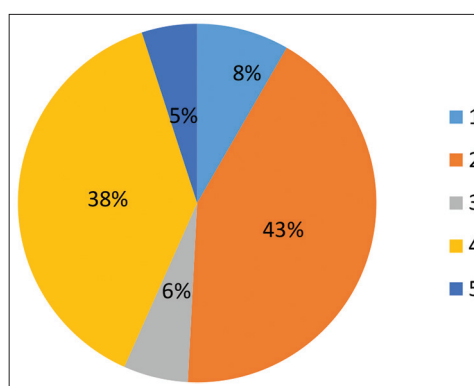**Figure 8: Distribution of responses for Q8**

Figure 9: Distribution of responses for Q9
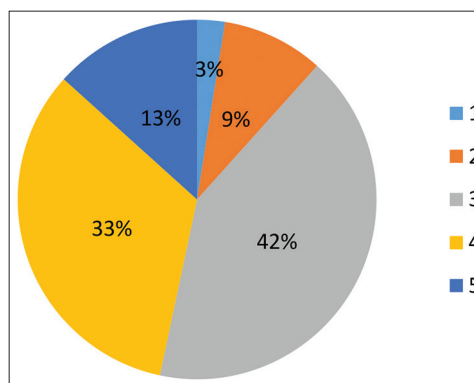
Figure 10: Distribution of responses for Q10

different parts of the world. Responses were collected from people in four different age groups and statistical analysis was done for 120 responses in all. Pie-charts were prepared for the responses obtained for all the questions. The descriptive statistical analysis was performed and Chi-square test was used to examine differences in responses to the questions. The significance level was stated as $P < 0.05$.

The analysis of the pie charts showed that 64% of participants of different age groups enjoyed learning/working online. 58% of the responders found online learning/working effective. 47% of participants agreed that the online mode had been a restrictor in their communication with their

Table 1: Chi-square tests for responses of different age groups

Questions	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
χ^2	8.259[a]	16.405[b]	4.249[a]	13.267[b]	10.552[a]	11.084[a]	21.062[a]	14.901[a]	8.111[a]	7.541[a]
Df	12	12	12	12	12	12	12	12	12	12
Asymptotic significance (P)	0.765	0.173	0.979	0.350	0.568	0.522	0.049	0.247	0.776	0.820

[a]12 cells (60.0%) have expected count < 5, [b]8 cells (40.0%) have expected count < 5. Statistically significant P < 0.05. Df: Degree of freedom.

Table 2: Chi-square tests for responses irrespective of age groups

Questions	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
χ^2	72.333[a]	62.417[a]	59.361[b]	73.583[a]	35.167[a]	112.417[a]	47.008[b]	67.583[a]	84.250[a]	66.917[a]
Df	4	4	4	4	4	4	4	4	4	4
Asymptotic significance (P)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

[a]0 cells (0.0%) have expected frequencies <5. The minimum expected cell frequency is 24.0, [b]0 cells (0.0%) have expected frequencies <5. The minimum expected cell frequency is 23.8. Statistically significant P<0.05. Df: Degree of freedom

peers/colleagues/teachers. 65% of the responders agreed that the online tools improved their learning/working experience. 48% of the participants preferred online learning/working over offline mode. 70% of the participants did not find it difficult to access online tools and devices. 44% found it difficult to stay focused online, and 46% did not find it difficult. 54% of the participants did not face any health problems due to online mode. 51% did not face any problems during online work/learning due to house environment. 88% of the participants gave average and above overall rating for online mode. Regarding differences in responses from various age groups for other questions, not much differences were noticed for most of the questions. Significance analysis using Chi-square test indicated that difference in responses to different questions for different age groups was significant only for one question that was related to staying focused online. All the age groups found it more difficult to stay focused online as compared to people from age group 51 years and above. This could be attributed to factors like difference in home environment and fewer responsibilities like online classes of kids at home. Similar results have been reported by some authors.[5] However, the difference in responses to all the questions was significant when the age group was not taken into consideration. Literature has been reviewed extensively by various researchers regarding attitude toward online learning/work, its strengths, and weaknesses.[6-8]

Based on this survey-based study, results obtained for the overall experience with online learning/working were on a positive side. Various other researchers such as Almahasees et al.,[9] Zheng et al.,[10] Sadid-Zadeh et al.,[11] Rad et al.,[12] Agarwal and Kaushik,[13] Khalil et al.,[14] and Riley et al.[15] also reported the same findings in their studies. Positive attitudes were depicted about the online learning and majority wanted to pursue it in the future. The reasons were flexibility, ease to write comments instead of physically confronting the person, less travel, more time for other chores, and more sleeping hours which indirectly led to better self-care and mental health. Inconsistency in results with other studies may be accounted to factors such as inappropriate instruction strategies, project design, internet facilities, lack of medical history of responders, and economic restraints to some extent. This can be overcome by providing adequate facilities and training for online education/work as suggested by Abbasi et al.,[16] Dayal,[17] and Selvaraj et al.[18]

However, more number of participants agreed (47%) than those who disagreed (40%) that the online mode had been a restrictor in their communication with their peers/colleagues/teachers. This could be accounted to less interaction during online sessions. The same observations were reported by Zheng et al.,[10] Abbasi et al.,[16] Amir et al.,[19] and Wang et al.[20] and can be avoided by designing interactive online experiences as put forward by Hodges et al.[21]

With this survey based study, covering participants from different age groups and different parts of the world, it was found that the overall experience with online learning/working was on a positive side and can be utilized by the academicians and administrators in planning the learning/working environment for achieving the optimum results/outputs. Further studies can also be done with increased the number of participants, adding more variables like profession and gender of the participants.

Hybrid or Blended learning/work with advantages of both online and offline mode can offer us a more promising future.[6-8,17] The hybrid approach can help to prepare people to stay technologically updated and can be treated as a futuristic approach to survive in times of crisis such as COVID-19. This approach can also help people of all age groups connect with each other globally.

CONCLUSION

Within the limitations of this survey-based study, it can be concluded that the overall experience with online learning/ working was on a positive side and can be utilized by the academicians and administrators in planning the learning/ working environment for achieving the optimum results/ outputs. Hybrid learning and work flexible approach with advantages of both online and offline mode has a promising future in times to come and could change the way people think, learn, and work.

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