Journal of Positive School Psychology http://journalppw.com
2022, Vol. 6, No. 5, 7568–7577

Teacher's Satisfaction Related to Online Mode of Teaching during COVID-19 in Higher Learning Institutions.

Madan Mohan Laddunuri[1], Veeraiah Kampasati[2]

[1,2]School Allied Health Sciences, Mallareddy Univeristy, Nizam College, Osmania University

Email: Madan.socio@gmail.com

Abstract

The study examined factors related to teacher satisfaction and their perspectives on the benefits and challenges of online teaching mode in colleges and universities during the time of the pandemic. The cross-sectional study used a Google form submitted to college and university faculty via social media platforms and used the snowball sampling technique. The questionnaire collected basic demographic and teaching experience information, opinions on online teaching experiences, satisfaction with it, online platform used, limitations and benefits. The main objective was satisfaction with online teaching. Overall, 36.9 percent of the participants said they were satisfied with their online teaching experience. Satisfaction was related to the course of study taught, and medical and science schools reported significantly lower satisfaction with the online platform (=13.41, P=0.037). Only 11.8 percent of teachers agreed that online instruction resulted in better learning for students, and almost half (49.8 percent) of them agreed that it resulted in poorer learning. Joint efforts by government and academic teaching institutions are required to facilitate the introduction of a meaningful alternative to traditional teaching and learning methods.

Keywords: online teaching, teachers' satisfaction, higher education, COVID-19, distance learning

1. INTRODUCTION

In the post-COVID era, the educational landscape was changing rapidly and almost all educational institutions around the world were closed and face-to-face classes suspended to contain the novel virus. It is estimated that almost 1.5 billion students around the world are currently affected by the closure of educational institutions due to the pandemic and are inevitably using online distance learning platforms (UNESCO, 2020). There was an abrupt demand that teachers should change their teaching style and quickly adapt and adapt to the technology-enhanced virtual education format, allowing students to continue learning from the comfort of their own homes with minimal disruption. In Western countries, advances in information and communication technology have made web-based learning a viable and popular choice in higher education for both learners and teachers (Cojocariu, Lazar, Nedeff, & Lazar, 2014; Wu, 2016). Some of the benefits of online instruction include improved accessibility and affordable options. Most educational institutions have adopted the synchronous mode of learning, in which students attend live lectures and interact with their teachers in real time (McBrien, Cheng, & Jones, 2009).

The transition was sudden, taking college and university faculty by surprise as few were prepared or experienced in delivering academic curricula virtually in India (Mishra, Gupta & Shree, 2020). As India has characterized regional and private digital inequalities in access to technology, this shift has resulted in significant

disruption to education for many students and teachers alike (Government of India, 2020). In addition, the move increased demands on teachers, who were struggling to balance the stress of managing the novel contagion while responding to the new challenges of service obligations in the delivery of distance learning, particularly in developing countries (Fernandez & Shaw, 2020; Oyedotun 2020 ; Rapanta, Botturi, Goodyear, Guardia & Koole, 2020; Tuma, Nassar, Kamel, Knowlton & Jawad, 2021). For example, a study from Jordan reported that just over half of teachers reported increased difficulty in distance learning due to intermittent internet connection and online fatigue (Tuma et al., 2021). Oyedotun (2020) suggested that the rapid shift to online pedagogy due to the pandemic in developing countries has brought to the fore the inequities in the developing world's education sector, including the lack of equipment and internet access in the rural areas, the limited training of teachers teaching communicated on the online platform. In this paper, we fill the research gap by examining teacher satisfaction with teaching fully online and postgraduate academic courses. The main goals of the current research are to examine teachers' satisfaction with distance learning and to understand their perspectives on the benefits and challenges of online teaching mode in colleges and universities in times of pandemic. The possible limitations, challenges and experiences of educators of an implemented distance learning plan are explored to share the results and make recommendations. Indeed, for the optimal implementation of distance learning in higher education, understanding the barriers faced by teachers is crucial.

2. METHODOLOGY

The study used a cross-sectional design and the results are based on a Google form that was designed and submitted to college and university teachers via email, WhatsApp and social media platforms. Emails were sent to some faculty members from leading Indian institutes asking them to share the survey link with their colleagues, and the snowball sampling technique was used. Institutions surveyed included the Indian Institute of Technology (IITs), Indian Institute of Management (IIMs), All India Institute of Medical Sciences (AIIMS), National Institute of Technology (NITs), and Central Universities. Efforts were made to ensure that all mainstream education and Indian states were represented. The data was collected between January and February 2021. A total of 422 college professors from 27 states and two union territories of the country took part in the survey.

The questionnaire collected basic demographic (age and gender) and teaching experience information (undergraduate degree, title, number of years of teaching experience, average size of class taught, employment in the public or private sector, educational background). The questionnaire also collected specific information about online teaching experience, satisfaction with it, type of online platform used, main limitations and advantages, and students' perception of learning outcomes. The main target criterion was satisfaction with the online lessons, which was measured using a 5-point Likert ranging from very dissatisfied (1) to neutral (3) to very satisfied (5). This was converted to a 3-point scale when performing the analysis.

The questionnaire was pilot tested and modified to ensure that it took no more than 10 minutes to complete. Participation in the study was voluntary and confidentiality was assured. Providing identification data such as e-mail addresses was voluntary. Only those respondents who consented to participate in the research study were included.

3. RESULTS

The participants included 422 teachers (mean age = 42.18 years, SD = 9.04; 58.1 percent male), mainly from government institutes (82.2 percent), undergraduate teachers (19.7

percent), postgraduate teachers (17.5 percent) and both undergraduate and graduate students (62.8 percent). On average, faculty had 12 years (SD=8.05) of teaching experience, however the majority said they had little experience of online teaching prior to the pandemic and the majority lacked the technical knowledge and only 21 percent had previously taught an online course /e. Just over half (51.7 percent) said they had received training from their institutes, and another 8.1 percent said they had attended a course to learn more about virtual teaching to bring up to date.

Most teachers had technical support from their educational institutions and 61.8 percent said they were provided with computers and infrastructure to support e-teaching during the pandemic. Despite the support, more than half (55 percent) reported an increase in spending related to web-based education. The most popular online platforms used were Google Meet (61.1 percent), Zoom (32 percent), Google Classroom (30.1 percent), Microsoft Teams (23 percent), WhatsApp group chats (23.5 percent), and WebEx (21.1 percent). Most faculties reported that these platforms were easy to use and did not present any major user difficulties. However, nearly half (48.6 percent) of respondents had cybersecurity concerns when using these platforms. The main modality of teaching was the use of synchronous live streaming tutoring sessions. More than half (55 percent) of participants reported taking online classes both from the office and from home, and only 18.5 percent reported being taught exclusively from home.

Participants were asked to name the most important characteristics of online teachers. Results showed that teachers ranked passion for teaching, good subject knowledge, passion for the subject being taught, and encouraging students' engagement in the classroom as some of the defining characteristics (Table 1). Thirty-six (8.5 percent) of respondents said they were very satisfied and satisfied. Another 28.4 percent said they were satisfied with their fully online teaching experience. Four percent of the participants stated that they were very dissatisfied and 17.3 percent were dissatisfied and 41.7 percent answered neutrally.

Table-1: Percent reporting on the important characteristics of effectiveonline teachers

Categories	**Not important Percent (n)**	**Somewhat important Percent (n)**	**Very Important Percent (n)**
Passion of teaching	0.9 (4)	11.4 (48)	87.7 (370)
Good subject knowledge	0.9 (4)	13.7 (58)	85.3 (360)
Passion about the subject	0.5 (2)	16.4 (69)	83.2 (351)
Facilitates classroom engage-ment	2.6 (11)	24.2 (102)	73.2 (309)
Flexible and open to feedback	4.0 (17)	24.4 (103)	71.6 (302)
Good time manager	2.6 (11)	34.8 (147)	62.6 (264)
Trained in online teaching	13.3 (56)	39.8 (168)	46.9 (198)

Table 2 shows the percentage of satisfaction or dissatisfaction with online teaching according to background characteristics. The results showed that there were no differences between educators in terms of satisfaction by gender, title, type of institute, number of students in class, and number of classes taught per week. Satisfaction was related to the curriculum taught, and medical and science faculty reported significantly lower satisfaction with the online teaching platform (=13.41, P=0.037). Higher satisfaction was reported by teachers who had some experience teaching online (=10.47, P=0.005) and

by those who had more teaching experience (=12.60, P=0.05).

Table-2**:** Background characteristics and percent satisfied/dissatisfied withonline teaching

Characteristics	**Percent satisfied Percent (n)**	**Percent dissatisfied Percent (n)**	χ^2	**P value**
Gender				
Male (245)	37.6 (92)	23.3 (57)	1.97	.373
Female (177)	36.2 (64)	18.6 (33)		
Designation				
Assistant Prof (244)	34.0 (83)	21.3 (52)	3.17	.530
Assoc/Additional (97)	39.2 (38)	20.6 (20)		
Professor (81)	43.2 (35)	22.2 (18)		
Type of Institute				
Government (347)	37.6 (92)	22.5 (78)	2.62	.270
Private/aided (75)	37.5 (130)	16.0 (12)		
Stream taught				
Engineering (162)	42.6 (69)	24.7 (40)	13.41	.037
Humanities (125)	40.0 (50)	16.0 (20)		
Medical (61)	27.9 (17)	23.0 (14)		
Science (74)	27.0 (14)	21.6 (16)		
Teaching experience (yrs.)				
<5 (97)	16.0 (25)	30.0 (27)	12.60	.050
5-10 (111)	24.4 (38)	24.4 (22)		
11-20 (128)	34.0 (53)	24.4 (22)		
>20 (86)	25.6 (40)	21.1 (19)		
No. of students (class)				
<40 (141)	36.9 (52)	23.4 (33)	2.73	.603
40-80 (181)	39.8 (72)	20.4 (37)		
>80 (100)	32.0 (32)	20.0 (20)		
classes taught (week) Less than				
5(151)	39.1 (59)	24.5 (37)	3.88	.422
6-15(210)	34.8 (73)	19.0 (40)		
>15(61)	39.3 (24)	21.3 (13)		
ıs online experienceNo (333)				
Yes (89)	33.3 (111)	23.7 (79)	10.47	.005
	50.6 (45)	12.4 (11)		

Table 3 shows the percentage of teachers who agreed on the pros and cons of online teaching, by level of satisfaction. Results showed that educators who were more satisfied with online instruction were more likely to agree with the myriad benefits of web-based instruction, such as: B. more interaction (=51.44, P=0.0001), greater flexibility (=59.8, P=0.0001), recording of lectures and playback at an appropriate time (=24.53, P=0 .0001), active student participation (=59.8, P=.0001), and increased creativity (=17.02, P=.002). On the other hand, no differences were found between satisfied and dissatisfied teachers regarding some of the disadvantages of online teaching, such as increased workload associated with virtual delivery of classes, limited

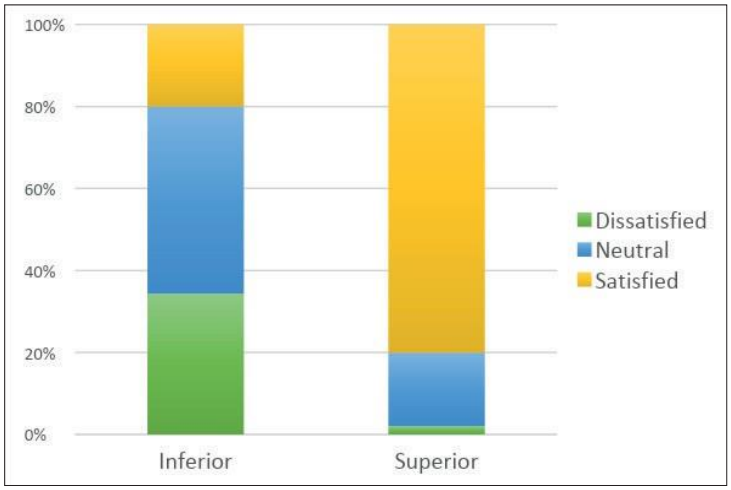
face-to-face contact and longer preparation time associated with online teaching.

Table 3: Pros and cons by satisfaction withonline teaching

Statements	**Satisfied (n=156) Percent (n)**	**t Satisfied(n=90) Percent (n)**	χ^2	**P value**
Interaction is higher in online than traditional class	19.9 (31)	1.1 (1)	51.44	.0001
Greater flexibility in onlineteaching	64.7 (101)	24.4 (22)	59.8	.0001
Lectures can be recorded and replayed	78.8 (123)	50.0 (45)	24.53	.0001
Students are actively involved	30.1 (47)	1.1 (1)	92.67	.0001
Increased workload in online teaching	60.9 (95)	68.9 (62)	2.13	.713
Face to face contact with students is missing	85.3 (133)	93.3 (84)	4.94	.293
Online teaching requires being creative	86.5 (135)	66.7 (60)	17.02	.002
Technical issues make online teaching frustrating	31.4 (49)	61.1 (55)	28.96	.0001
Longer preparation time for an online class	55.8 (87)	57.8 (52)	0.44	.979
Passive and lower participation of students	58.3 (91)	91.1 (82)	42.78	.0001
Difficulty in motivating students in online mode	57.7 (90)	86.7 (78)	27.57	.0001

Teachers were also asked to indicate whether they thought online instruction was associated with superior learning compared to classroom instruction. Only 11.8 percent of faculty agreed that online instruction led to superior learning among students, and almost half (49.8 percent) agreed that it led to poorer learning. Interestingly, teachers who felt online instruction was associated with superior outcome were more likely to report satisfaction with the web-based platform compared to teachers who felt it was associated with inferior learning (Fig. 1). Almost two thirds (63 percent) of the teachers prefer a hybrid form of teaching in the future and only 35.1 percent want to continue the classic face-to-face teaching. It seems that the e-learning platforms cannot completely replace the traditional classrooms as most prefer mixed mode after the pandemic.

Figure-1: Percent teachers satisfied with online teaching by student learningoutcome



4. DISCUSSION

The study examined teachers' satisfaction with their web-based teaching experiences after lockdown. Satisfaction with this novel teaching method was generally low as faculty struggled with several challenges, including a lack of proper training to use the online platform, increased spending, limited teacher and student engagement, and doubts about whether the students learned from the e-learning platform. In addition, adequate provision of basic online teaching facilities, unlimited internet connection plans and stable power supply were also identified by some participants as other issues.

Some of the hallmarks of effective online teaching, recognized by faculty, were passion for teaching and the subject, expert knowledge of the subject, and the teachers' ability to foster student engagement in the classroom. There is evidence that passion is a salient trait and has a positive impact on student academic achievement, engagement, and motivation (Carbonneau, Vallerand, Fernet, & Guay, 2008; Ruiz-Alfonso, Vega, & Beltran, 2018; Serin , 2017). Interestingly, in addition to subject knowledge and passion, respondents also felt that educators need a wide range of different skills, and these include the trainer's ability to create effective learning environments through student engagement, being open to feedback and practicing flexibility. Indeed, identifying characteristics that contribute to engagement in online instruction can help prevent burnout and increase faculty engagement in their profession (Green, Alejandro, & Brown, 2009).

Teachers also struggled with a lack of skills to create an engaging online learning environment for their students. Satisfaction was particularly low among medical and science schools due to a lack of resources and support for content development. Previous studies have shown that academic subjects such as medicine and science, which depend on laboratory skills and practical experience, require excellent quality educational resources to provide adequate training (Al-Balas et al., 2020; ODoherty et al., 2018; Sindiani, Obeidat, Alshdaifat, 2020). Previous studies have documented that the distance learning format is perceived as less effective and less satisfying by students and teachers alike (Khalili 2020; Tuma et al., 2021). Most of the educators surveyed preferred to move to a hybrid form of instruction, believing that traditional face-to-face instruction was superior for coaching skills and a clinically-focused curriculum.

Although previous research suggests that educators are more likely to be satisfied when they are flexible about what, how, when and where they teach, rather than following strict and rigid curriculum and

guidelines (Archambault & Crippen, 2009; Bolliger & Wasilik, 2009; Hawkins , Barbour, & Graham, 2012; Murphy & Rodrguez-Manzanares, 2008; Velasquez, Graham, & Osguthorpe, 2013), however, the challenges can be significant when teachers have little or no training in online pedagogy (ODoherty et al ., 2018; Khalili 2020). Our results showed that respondents reported greater satisfaction when they had prior online tutoring experience.

There is a need to offer some training to university teachers to improve their professional skills related to distance learning. As a significant proportion of respondents were dissatisfied with the online platform and the virtual delivery of lessons, this can affect the quality of the course and lead to poorer learning outcomes. There are multiple online technology tools such as multi-modality, live cloud recordings of lectures, instant feedback, chatting and posting questions that educators must leverage to provide the technology-driven generation of students with enhanced and personalized learning experiences. When college educators are not trained in online pedagogy, the benefits to students and job satisfaction remain elusive. In fact, online instruction requires pedagogical content knowledge linked to digital technology tools to enhance student learning experiences (Rapanta et al., 2020). Several studies have documented that teacher satisfaction is central to optimal and quality student learning (Bolliger & Wasilik, 2009; Stickney, Bento, & Aggarwal, 2019).

Results showed that satisfaction with online instruction was related to faculty's perceptions of the benefits the web-based platform offered them, including interactive technologies and web features such as chats that encourage learners' active participation, use of creative tools such as Mentimeter and Short quizzes to enhance and test learning. It is expected that newer instructional strategies would further improve student participation and student-teacher interactions, and encourage collaborative learning (Bao, 2020; Evans, Ward, & Reeves, 2019; Kebritchi, Lipschuetz, & Santiague, 2017). Challenges notwithstanding, online education is here to stay and can greatly facilitate and improve educational standards (Ayebi-Arthur, 2017).

The demand for high-quality online teachers who provide learners with personalized learning experiences will indeed increase over time as technology advances ((Donahoe, Rickard, Holden, Blackwell, & Caukin, 2019; Mishra et al., 2020 It is envisaged that the use of technology will become an integral part of academic learning in the years to come, gradually replacing the traditional and teacher-driven classroom fast internet connection (Altbach & De Wit 2020) Against this background, the Indian government initiated the SWAYAM, an education portal that provides quality online learning for all and bridges the digital divide in the country. Undergraduate and postgraduate level.The Ministe Human and Resource Development (MHRD) and University Grants Commission (UGC) has several e-books, e-journals, online repositories, web-based television channels and virtual labs such as National Digital Library of India, e-ShodhSindhu, e- GyanKosh and Gyandarshan provided. Information about these vital resources must be widely disseminated to educational institutions so that these resources can be used appropriately and educational institutions can adapt to the new educational reality.

The main disadvantage of the study is the use of a convenient sampling technique, which limits the generalizability of the results. It also remains possible that those who were more satisfied with the digital platform were more likely to respond, which may have overestimated satisfaction rates. Still, the study has several strengths, including a large sample size and pan-Indian representation of teachers from all educational backgrounds. It is expected that the mounting pains of distance learning will soon be overcome and the forum will provide more, equitable and

affordable opportunities for all students. Future studies need to compare online and traditional classroom instruction with student engagement and learning outcomes.

5. CONCLUSIONS

In summary, joint efforts by government and academic teaching institutions are needed to facilitate the introduction of meaningful alternatives to traditional teaching and learning. There are countless opportunities to transform teaching practices and expand the distance learning platform by collaborating with other national and international academic institutions. In fact, the e-learning platform can unlock tremendous opportunities to strengthen education in resource- and experience-poor countries.

Key findings and implications for stakeholders:

1. Teachers need the training to improve their skills to create an engaging online learning environment for their students.
2. It is expected that distance learning would provide more, equitable and affordable opportunities for all students.
3. Joint efforts by government and academic teaching institutions are needed to facilitate the introduction of meaningful alternatives to conventional teaching and learning.

6. REFERENCES

[1] Al-Balas, M., Al-Balas, H. I., Jaber, H. M., Obeidat, K., Al-Balas, H., Aborajooh, E. A., Al-Taher, R., & Al-Balas, B. (2020). Distance learning in clinical medical education amid COVID-19 pandemic in Jordan: current situation, challenges, and perspectives. BMC Medical Education, 20(1), 341. https://doi.org/10.1186/s12909-020-02257-4

[2] Altbach, P. G., & De Wit, H. (2020). *Post-pandemic outlook for higher education is bleakest for the poorest. International Higher Education*, 102, 3–5. https://www.internationalhighereducation.net/api-1/article/!/action/getPdfOfArticle/articleID/2904/productID/29/filename/article-id-2904.pdf

[3] Archambault, L., & Crippen, K. (2009). K-12 distance educators at work: Who's teaching online across the United States. *Journal of Research on Technology in Education*, 41(4), 363–391. https://doi.org/10.1080/15391523.2009.10782535

[4] Ayebi-Arthur, K. (2017). E-learning, resilience, and change in higher education: Helping a university cope after a natural disaster. E-Learning and Digital Media, 14(5), 259–274. https://doi.org/10.1177/2042753017751712

[5] Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. Human Behavior Emerging Technology, 2(2), 113-115. https://doi.org/10.1002/hbe2.191

[6] Bolliger, D., & Wasilik, O. (2009). Factors influencing faculty satisfaction with online teaching and learning in higher education. Distance Education, 30(1), 103–116. https://doi.org/10.1080/01587910902845949

[7] Carbonneau, N., Vallerand, R., Fernet, C., Guay, F. (2008). *The role of passion for teaching*

[8] in intrapersonal and interpersonal outcomes. Journal of Educational Psychology, 100(4), 977-987. https://doi.org/10.1037/a0012545

[9] Cojocariu, V.-M., Lazar, I., Nedeff, V., & Lazar, G. (2014). SWOT analysis of e-learning educational services from the perspective of their beneficiaries. Procedia-Social and Behavioral Sciences, 116(2014), 1999–2003. https://doi.org/10.1016/j.sbspro.2014.01.510

[10] Evans, S. M., Ward, C., & Reeves, S. (2019). Online interprofessional education facilitation:
[11] *A scoping review. Medical Teacher*, 41(2), 215–222. https://doi.org/10.1080/014215 9X.2018.1460656
[12] Fernandez, A.A., & Shaw, G.P. (2020). Academic leadership in a time of crisis: The coronavirus and COVID-19. Journal of Leadership Studies, 14(1), 39–45. https://doi.org/10.1002/ jls.21684
[13] Government of India. (2020). Household Social Consumption on Education in India report, based on the 2017-18 National Sample Survey. Ministry of Statistics and Programme Implementation. New Delhi: National Statistical Office. Retrieved from http://mospi. nic.in/sites/default/files/publication_r eports/Report_585_75th_round_Educ ation_ final_1507_0.pdf
[14] Green, T., Alejandro, J., & Brown, A. H. (2009). The retention of experienced faculty in online distance education programs: Understanding factors that impact their involvement. International Review of Research in Open and Distance Learning, 10(3), 1-15. https://doi.org/10.19173/irrodl.v10i3.68 3
[15] Hawkins, A., Barbour, M. K., & Graham, C. R. (2012). "Everybody is their own island": Teacher disconnection in a virtual school. The International Review of Research in Open and Distance Learning, 13(2), 124–144. https://doi.org/10.19173/irrodl.v13i2.96 7
[16] Kebritchi, M., Lipschuetz, A., & Santiague, L. (2017). Issues and challenges for teaching successful online courses in higher education: a literature review. Journal of Educational Technology Systems, 46(1), 4–29. https://doi.org/10.1177/0047239516661 713
[17] Khalili H. (2020). Online interprofessional education during and post the COVID-19 pandemic: a commentary. Journal of Interprofessional Care, 34(5), 687–690. https://doi.org/10.108 0/13561820.2020.1792424
[18] McBrien, J. L., Cheng, R., & Jones, P. (2009). Virtual Spaces: Employing a Synchronous Online Classroom to Facilitate Student Engagement in Online Learning. The International Review of Research in Open & Distributed Learning, 10(3), 1-17. https://doi.org/10.19173/irrodl.v10i3.60 5
[19] Mishra, L., Gupta, T., & Shree A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. International Journal of Educational Research Open, 1 (2020),100012. https://doi.org/10.1016/j.ijedro.2020. 100012
[20] Murphy, E., & Rodríguez-Manzanares, M. A. (2008). Contradictions between the virtual and physical high school classroom: A third-generation activity theory perspective. British Journal of Educational Technology, 39(6), 1061–1072. https://doi.org/10.1111/j.1467-8535.2007.00776.x
[21] O'Doherty, D., Dromey, M., Lougheed, J., Hannigan, A., Last, J., & McGrath, D. (2018). *Barriers and solutions to online learning in medical education - an integrative review. BMC Medical Education*, *18*(1), 130. https://doi.org/10.1186/s12909-018-1240-0.
[22] Oyedotun, T.D. (2020). Sudden change of pedagogy in education driven by COVID-19: Perspectives and evaluation from a developing country. Research in Globalization, 2 (2020), 100029. https://doi.org/10.1016/j.resglo.2020. 100029. https://doi.org/10.1016/j.resglo.2020. 100029

[23] Sindiani, A. M., Obeidat, N., Alshdaifat, E., Elsalem, L., Alwani, M. M., Rawashdeh, H., Fares,
[24] S., Alalawne, T., & Tawalbeh, L. I. (2020). *Distance education during the COVID-19 outbreak: A cross-sectional study among medical students in North of Jordan. Annals of Medicine and Surgery (2012), 59,* 186–194. https://doi.org/10.1016/j.amsu.2020.09.036
[25] Stickney, L,T,, Bento, R.F., & Aggarwal, A. (2019). *Online higher education: faculty satisfaction and its antecedents. Journal of Management Education,* 43 (5), 509-542. https://doi.org/10.1177/1052562919845022
[26] Tuma, F., Nassar, A. K., Kamel, M. K., Knowlton, L. M., & Jawad, N. K. (2021). Students and faculty perception of distance medical education outcomes in resource-constrained system during COVID-19 pandemic. A cross-sectional study. Annals of Medicine and Surgery (2012), 62, 377–382. https://doi.org/10.1016/j.amsu.2021.01.073
[27] UNESCO. (2020). *COVID-19 Education: From disruption to response*. Retrieved from https://en.unesco.org/covid19/educationresponse/