Methodology for the Study of the Effects of Online Classes, Product of the COVID-19 Pandemic

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Abstract
The present work is a systematic review article, better known as an analysis of the state of the art, the work is focused on being able to analyze the different factors that have occurred in the change of the different ways of studying towards the online modality, the The year 2020 was the year of the adaptation of all modalities, all levels, regardless of the social, economic, geographical location, among others, product of the pandemic produced by COVID-19, a temporary study of publications was carried out related to the changes that have occurred in all the actors of the world educational system, presented a summary table with the important data in each of the studies, as well as a description of the study, in total 10 scientific articles published in different journals were taken all of them indexed in SCOPUS and in most of the continents, presenting at the end a conclusion regarding the analyzed jobs and positions at your service.

Keywords
Covid-19, EMG, dream, wearable, aplicative.

1. Introduction

In 2020 the world has been deeply affected by a pandemic caused by COVID-19, causing, among many sensitive things related to people's health, a change in the normal development of people's activities. Education, an essential element for development and growth, was also affected, therefore when social distancing occurred, the classes went from the face-to-face mode to a 100% virtual mode, the children who daily attend their classes in schools, stopped attending and their homes, became the only place where they could study, play, share among other things, for this reason as time passed, children, parents and teachers began to show changes in their behavior when they were doing activities educational studies, conducting a search in the bibliography produced at times of pandemic, we found works related to being able to evaluate the levels of concentration and meditation in children, when they are doing academic activities at home, using techniques and devices based on Brain Computer Interface (BCI) [1], the effects of the pandemic show changes in the development of behavior d e parents, because they became assistants in conducting their children's classes, we found works where these changes are evaluated from the parents' perspective [2], studies were also carried out to evaluate the behavior of parents and their children, individually and together [3], many studies are carried out analyzing different factors, taking as criteria the housing conditions, child labors, technological means available, with the intention of being able to evaluate how the classes and classes are developing physical activities of children [4], the studies are diverse, analyzing from different areas and techniques, we find works that evaluate the way in which children are doing educational activities with the time that children are using technological resources to perform their educational

activities [5], in this pandemic children with some disability were also affected as a result of this also ntramos studies related to how children have been affected and how they have adapted to this new situation [6], with respect to secondary and higher education, research has also been carried out on how they have been coupled with new ways of studying and teaching [7] , the effects have reached all kinds of effects in education, hospital centers where medical training activities are carried out, there are studies related to being able to measure these effects in the development of these training activities [8] [9], many works they show the concern of all those involved in the educational process from the students, to the parents, through the teachers and administrative personnel of the education centers at all levels [10]. The present work compiles 10 works published in 2020, where they have been organized taking into consideration the time and place of the investigation. As well as presenting the results in a form of State of the art with respect to education in times of pandemic.

2. Materials and Methods

The materials and methods in this journal are characterized by the review of the different publications made in these times of pandemic caused by COVID-19, which shows the importance of carrying out a detailed analysis, which is presented in an orderly, organized manner. by publication dates, showing how the effects of the pandemic on education have evolved, on all its actors, considering students, parents, teachers, in the process of conducting online classes.

The following is the block diagram of the methodology to be developed:
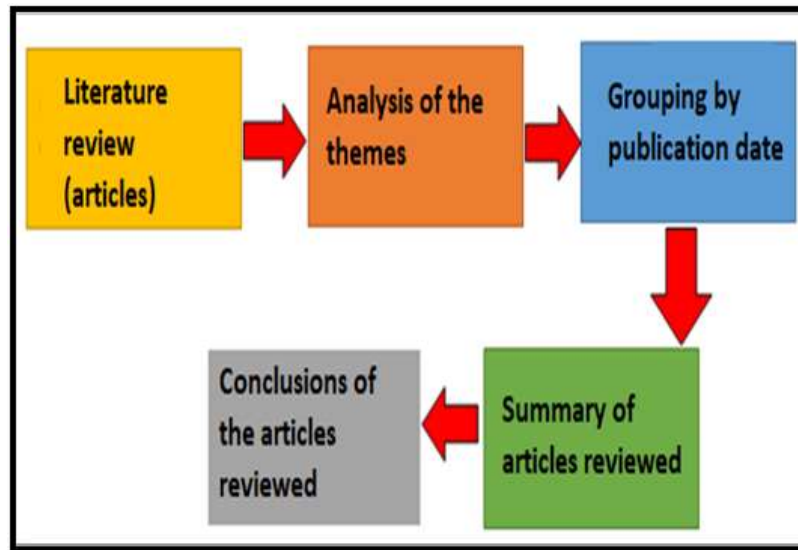
Figure 1: Block diagram of the proposal methodology.

Review of the literature (articles): the review of the literature is the starting point of the methodology, in this stage the search for articles published in indexed journals that have the purpose of presenting evidence of situations presented in the realization of the classes is carried out online, with implication in most of the actors that are presented in the educational process.

Analysis of the topics: at the stage of the analysis of the topics, a detailed analysis of each of the topics covered in the articles is carried out, presenting a summary of each of them with their respective analysis criteria and results of each publication.

Grouping by publication date: One of the characteristics of this publication is to be able to present the results grouped by topics related to education, which have been taken into consideration for

studies in these times of pandemic, so that the works to be presented They are from publications made in 2020.

Summary of the results obtained in the reviewed articles: one of the results of this research is to be able to present in a summarized and concise form, the results obtained in each of the summarized articles in order to understand the application and the population used in studies related to the effects of the pandemic caused by COVID-19 on education worldwide.

2.1. Abstracts of the articles reviewed

[1]: The work presents an evaluation to the students who are receiving virtual classes, through a computational approach, using a brain computer device, from which brain activity is evaluated based on the measurement of the level of attention and meditation, these levels are evaluated at important moments in the development of online classes, which shows that children's concentration levels vary depending on where they are in the class, as well as whether there are distracting elements in the environment where the classes take place. The equipment used is known as BCI, which helps in carrying out the measurement because it provides a measurement that ranges from 0 to 100% for both the level of attention and for meditation.

[2]: The present research work was carried out in the city of China in the city of Henan with a total of 3275, the parents who had enrolled their children in the children's program who completed the online survey, have an average of parents aged between 30 and 39 years (68.3%), between 20 and 39 years (68.3%), 29 years (19.8%), between 40 and 49 years (11.0%) and 50 years or more (0.9%), no parents were under 20 years of age, with different levels of study from junior high school, high school, associate degree, undergraduate and postgraduate degrees with different occupations such as government / public organizations, state company, private company, private company , self-employed and unemployed, most have an average of 1 or 2 children, half of the parents (50.5%) have children on average ages 3 and 4, and (34.5%) between 4 and 5 years. The questionnaire has 3 parts with 41 closed questions and 2 open questions, where the closed ones are to evaluate the beliefs and attitudes of parents about online learning, unlike the open ones are to express personal experiences, knowledge and feelings collecting data on the demographics of both parents and children, among the questions are ages, classification, number of children and ages, in the 2nd part it was taken about Online Learning during COVID-19, in this part we talk about the Online learning from home with 15 questions, where it was possible to know about frequency, content of children as well as the interaction of children with parents during this process, in the 3rd part the belief will be studied taking as a five- point Likert statement ("Strongly disagree" to "totally agree"), which were applied to the questions about learning online, 27 questions were classified into 3 subscales, 1 deals with the pros and cons of learning (9) where traditional education was compared with online, then to measure the beliefs and attitudes of parents, these questions were referenced from doctoral theses where traditional education and education were compared online education. Among the main advantages and disadvantages obtained from this analysis were the content, cost, effect, learning environment, online learning outcomes for young children and families, in the 2nd subscale (10) the learning value is evaluated children's online education, where parents evaluate learning in 5 areas (well-being, language, society, science and arts), this evaluation was compared with traditional education and the 3rd subscales (8) will measure the impact of online learning about education and family, these questions were used to evaluate the eductions and the impact of learning on parenting and family, the reliability for its three subscales was 0.80, 0.89 and 0, 78, respectively, indicating satisfactory reliability. The procedure was the administration of a survey to parents and children from the beginning of the quarantine, this information was carried out online from the Wen juan xing preschool centers (www.wjx.cn), this process was voluntary and they could be withdrawn if necessary wish at some point, a quantitative and qualitative evaluation was made for the data analysis for the quantitative mode, the IBM SPSS 26.0 software was used, the data was cleaned and the missing data were replaced by the mean of the variable (< 0.5%), the descriptive statistical analysis calculates the frequency, mean and standard deviation on the learning of parents and children, finally the score of 1 = strongly disagree was made; 2 = disagree; 3 = Neutral; 4 = agree; 5 = totally agree, the mean score

was made on the parents' response, the qualitative data collected was analyzed using the NVivo 12 software, thematic analysis was used to identify, analyze and report the patterns generated from the data, In conclusion, online learning is currently very popular for its flexibility, greater access and low cost, however it was shown that this teaching during the pandemic has been a challenge for Chinese families since they had negative attitudes about learning. online because they were not trained for this teaching, due to the circumstances raised by the COVID-19 pandemic, this type of learning was implemented by force, this was related to the difficulties of parents to provide support to their children for different reasons, however this study has certain limitations as quantitative studies provide representative evidence and divers rsified by the fact that mixed methods must be used to fully explore the Chinese language, this study collected self-report data, this type of study was used to replace traditional education during this health emergency.

[3]: The present study was carried out between a father and children of Bangladesh by means of a search after the first 30 days of quarantine, non-probability sampling was used for the data of the participants, for which parents who had children between 5 and 15 years, a total of 387 respondents were obtained, then the cleaning was carried out, leaving 384 in total for the tests, the procedure was data collection through an online questionnaire, the surveys were tested on 40 subjects prior to implementation, this questionnaire counts with various parts such as (i) socio demographic information (age, sex, educational level, place of life, number of members with income in the family, average monthly family income, knowledge about COVID-19 and any family member / relatives / neighbor of the respondent was Corona positive or not), (ii) financial and lifestyle information of the parents, (iii) information related to the child's activity and the attitude of the parents dres towards the child and (iv) information related to the child's mental health. This survey was unpaid and anonymous. The survey was made up of 47 items from the Revised Child Anxiety and Depression Scale (RCADS), 10 Depression items to measure major depressive disorder in children, 6 items generalized anxiety (GAD) with the Spence Child Anxiety Scale to measure parents (SCAS-P). Children's anxiety, Parental informed child behavior checklist (CBCL), for the evaluation of children between 5 and 15 years old, 6 items on the sleep problems scale, it is evaluated through scores on the MDD-10 and GAD scales -6 (0 = Never, 1 = Once a week, 2 = 2 to 4 times a week, & 3 = Every day), with a total of 0-30 and 0-18 respectively, SDS-6 used On a 3-point scale (0 = not true; 1 = sometimes true; 2 = very true / often true) with a total of 0-12, the highest scores showed a level of depression, anxiety and sleep disorder with a Acceptable reliability Cronbach's alpha was 0.814, which is more than the acceptable value of 0.70. Descriptive statistics have been made for demographics,, K- means applied to depression, anxiety and sleep disorder scores, the chi-square method was used to evaluate socio demographic variables, behavior of parents towards children and child mental health Confirmatory factor analysis (CFA) was used to evaluate children's mental health, finally, the structural model using the identified components of children's mental health with a level of significance established at $p < 0.05$, data analysis was performed with IBM SPSS Statistics for Windows (Version 23.0), IBM SPSS Amos and Microsoft Excel. Of the total number of participants, there are 157 (40.9%) women and 227 (59.1%) men, with an average age between 36 and 45 years (46.6%), postgraduate educational level (35.4%) and reside In urban areas (63.3%), 56.3% carried out work during confinement, 25.3% attended work, 67.7% with uncertain financial situation, depression, anxiety and sleep disorder scores of the Children have been classified into 4 groups (sub threshold, mild, moderate and severe disturbance) with k-means, from the results we obtain 43% of the children mental health disorders below the threshold, 30.5% had mild disturbances, 19, 3% suffered from moderate disturbances, 7.2% suffered severe disturbances, to see the differences found in depression, anxiety and sleep disorder scores of the child between the four groups using the chi-square test was also used to characteristic differences, the results showed that there were no significant differences between sex and age but there were Difference between educational levels of parents, depression, anxiety and sleep disorders was higher in children living in urban areas (35.7%), however the score for mental health disorders (63.3%) , showed a significant difference between parents who attend work (25%), smoke (35.7%) or lose work (28.6%) with a higher score of depression, anxiety and sleep disorders of the child, 4 were evaluated variables, 1st variable is the mental health of the parents, 2nd variable participant information, 3rd variable Attitudes towards their child and online activity finally 4th variable child mental health, a CFA model was developed to see the

relationship between the 4 factors, with a trajectory coefficients, the chi-square test with a fit showed a value of 151.890, with degrees of freedom = 84, P value <0.001, the chi-square test, RMSEA = 0.046, CFI = 0.954 and TLI = 0.942 , what it gives us shows us that the model is correct, it could be comp steal that the mental health of the child is affected by the mental health of the parents as well as the attitudes of the parents.

[4]: This research is to determine how children under 13 are dealing with confinement, so an online survey Lime Survey of the University of Lisbon was created, validation was carried out by 5 experts, a pilot test was carried out with 23 families, with time of 5 min to complete it, the survey is divided into 4 sections, 1st section is home, 2nd Characteristics of the home, 3rd Household routines, 4th Child routines, the variables that were evaluated are 5 categories, 1st Intellectual activity, 2nd playful screen time, 3rd play without PA, 4th play with PA and 5th PA, the first 3 were added for the calculation of sedentary time and the last 2 to calculate the total time of AP, which became percentage of total time reported for the categories that we will call percentage of PA (% PA), the factors associated with the child are characteristics of the home, employment situation of the adults, they were used to analyze which would influence the% PA. We had 3,075 respondents with children under 13 years of age with overcrowding for 3 to 4 weeks, then the data was cleaned, leaving 2,159 (1117 boys and 1042 girls), which were subdivided into 4 age groups 462 from 0 to 2 years , 765 from 3 to 5 years, 606 from 6 to 9 years and 326 from 10 to 12 years, descriptive statistics and frequency analysis of the 2,159 divided by groups were used, a priori power analysis was analyzed using G * Power3 of 30 To test the difference between 4 independent groups means using a two-tailed test, a mean effect size (d = .50) and an alpha of 0.05, the result showed 74 respondents achieved a power of 0.80, the separate variance (ANOVA) for the different factors, characteristics of the home, employment situation of adults affected% AP by age group, group 1 = 0 to 2 years, n = 462; group 2 ¼ 3 to 5 years, n = 765; group 3 ¼ 6 to 9 years, n ¼ 606; and group 4 ¼ 10 to 12 years, n = 326, finally progressive forward regression (P to enter <.05, P to eliminate> .10) to investigate the best predictors of% AP performed by children, for the ANOVA they were entered qualitative variables and then transform them into dummy variables before entering regression, pairwise elimination was used in the regression to fit the missing values. SPSS for Mac. From where we were able to find descriptive data of the children, characteristics of the dwelling, employment situation of the adults, at the end we were able to find that in the age groups it was obtained that the highest values of% PA were with the children of 0 to 2 years followed by 3 to 5, 6 to 9 and 10 and 12, 4 ANOVA tested the difference between the PA sex, space, number of children in the home, parents who work from home or did not reveal significant main effects factors (all P <.002), except sex (P ¼ .068), did not differ by sex among the children. Considering the type of space in the house, we find that having a large outdoor space plays an important role, positively influencing In the PA.

[5]: In the present study, a cross-sectional design was carried out because it focuses on the parents of children from 3 schools between grades 1 and 8 with ages between 6 and 13 years, so all public schools have the same background of the state of Turkia that are located in the western, eastern and central regions of Turkey, schools have 305 western region, 526 eastern region and 713 central region, with a participation of parents 70.49%, 71.04% and 70.12% For data collection, a descriptive questionnaire form was used that included questions about socio demographics, characteristics of the pandemic, screen time, the parental practices scale (PPS) was used, with a 4- point Likert-type scale (never = 1, occasionally = 2, frequently = 3, always = 4), with 52 items that are divided into 6 subdivisions for positive or negative practices of parents and children, on positive resolution it is evaluated on the communication of podre with the children, that is, the problem-solving method and in negative resolution, the ineffectiveness of the parents 'applied problem solving is evaluated, a sub-dimension over reactive evaluating exaggerated parents' reactions, Inconsistent sub-dimension evaluates whether the rules apply consistently , sub dimension Daily pre-test assesses family members, sub dimension involves questions that evaluate the activities of parents and children, the scores of this range go from 52 to 208 where the highest score is the improvement of parenting practices. Cronbach's Alpha value of the scale is 0.91, while the Cronbach's Alpha value of the present study was found to be 0.88. Data collection was given by filling in a questionnaire with the

parents of children aged 6 to 13 during The quarantine, the teachers who participated was through the school administrators, it was taken as a condition that only one form be filled out for one more children, with a delay of 15 min to complete the form, they were given an informed consent form, after the data analysis which was carried out using the SPSS 21.0 statistic, asymmetry was found to find normality, the numerical variables are known as mean, standard deviation, minimum and maximum, and the categorical and nominal variables were expressed as frequencies and percentages, the correlations between the predictor variables were analyzed to identify co-linearity problems, multiple regression models were generated for the dependent variable, independent samples t tests were used (not reported) to identify the group, the level of acceptance was considered as 5%, they were analyzed with a confidence interval of 95% and a $p < 0.05$ Significant level, the results obtained on the characteristics of children and their families during the isolation, which was completed in total 1115 surveys completed, of which 53.4% of the children were women, aged less than Children's day of 9.03 ± 1.95 (min. 6; max. 13); 43.1% of families reported income 4000 Turkish liras, 68% of mothers did not work and 40.2% of fathers switched to flexible work, families, 89.6% confirmed basic rules of behavior, 71.7 % said that screen time had increased, reaching a daily average of 6.42 ± 3.07 (min: 0; max: 15) hours.

[6]: This research was carried out in the RHF, parents and professionals gave their consent for this work where the 1st sample (N) we had 106 children, they were registered in RHF, 85.9% of children had a congenital visual disability and 35.8% had one or more disabilities, according to the WHO on visual impairment, 26.4% are considered blind (category 4 and 5), 19.8% were blind (category 3), 25.5% are considered as severe visual impairment (category 2), 22.7% are considered as moderate visual impairment (category 1) and finally 6 children (5.6%) without visual impairment, 2nd sample (N1) It has 34 34 RHF professionals: 9 psychologists, 13 rehabilitation professionals and 12 educators, the questionnaire was sent by mail to the parents and professionals of children with visual impairment, it was based on the analysis of responses (N = 106 families; N 1 = 34 operators) and they were divided into 3 groups, 1st is composed by 9 items on the child's perception of which: 3 on satisfaction, 3 frequencies and methods of contact, 1 child's progress, 1 question on strengths and 1 open question, 2nd is composed of 3 questions for parents: 1 benefits of the RHF-DSP, 1 Possible guarantees resulting from continuing treatment, 1 possible help due to the opportunity to dialogue and seek advice from professionals, 3rd is composed of 4 questions: 1 possible continuation of the online intervention, 1 ease of proposing a online intervention, 1 ease of preparing online intervention activities, 1 the impact of the online communication instrument / device and at the end of the questionnaire a blank space was left for comments, Visual Analogue Scale (VAS) was used,) , from 0 to 10 for the evaluation of the perceptions of parents and professionals, a comparison was also made between the perceptions, the first step is the creation of the RHF-DSP is to seek ar forms of communication between family and professionals by creating a DSP sharing thoughts and ideas, professional house has a laptop to access the software and record the children's medical records, the meetings were held through Google Meet and to share the files Google Drive was used in order to allow the exchange of data and material between all Professionals. For RHF-DSP communications, it made use of videoconferencing systems (VCS) through Google Meet, Zoom or Skype, 50.7% of foster children received more than one intervention per week with a duration of 60 to 60 minutes, the descriptive statistics It was formed as quartile I / median / quartile III for continuous variables and percentages, a Wilcoxon distribution test of continuous variables was performed. The results obtained are 77 (72.6%) of the parents and 34/34 (100%) of the professionals, the highest scores are VAS, 7 of 8 were the highest in professional parents (p value <0, 05), the strengths in the RHF-DSP (p value 0.426) didnot show significance.

[7]: For the present study, it has been developed using a quantitative approach with a cross-sectional, observational (non-experimental) and exploratory design, using an incidental probabilistic or non- probabilistic sample. From Sonora, Mexico, 82.5% of the participants are from urban areas, 56.8% of the teachers and 43.2% are women with an average age of 39.3 (SD = 7.57), 27.3% are from high school, 72.7% are degree, 86.4% with more than 5 years of experience, unlike the students, 16.4% were men and 83.6% women with an average age of 21.7 (SD = 4.20), 21.6% were from high school and 78.4% were degree, the instrument for data collection was the implementation of an ad hoc

questionnaire where it allows us to know the experience of teachers and students after remote teaching, they have been divided into 4 aspects Devices, connectivity and alternative spaces of instruction, Previous experience and difficulties, Evaluation and support received and Transformation and projection of learning, it was created with the Google forms tool to collect data remotely, it was considered that only teachers and students had to answer the questionnaire in any economic compensation the questionnaire has a time of 20 minutes because it is an exploratory study, it is represented by descriptive statistics using mostly frequencies and percentages, measures of central tendency or dispersion, the comparison will be made if necessary using the SPSS V software. 21 for data analysis. The results obtained were ordered by categories, with the use of a computer or laptop it had a result of 95.5% by teachers and in the case of students only 67.2% and 31.9% use smartphones, with respect to the ownership of these devices 97.7% are teacher owners and only 84.5% of the students were owners, the others used borrowed equipment, 86.4% of teachers and 25.0% of the students have this service unlimitedly and 50.9% count with limited service, 12.9% with cell phone data, Whats App was the most used communication by 90.1% of the teaching staff and 73.3% of the student body, it is classic as good communication 81.9% between the student body and theteachingstaff.

[8]: For this research we had 35 residents of General Surgery from an ACGME accredited program We used our institutional health insurance Version compatible with the Portability and Accountability Act (HIPAA) of Zoom as the basis of our interactive electronic curriculum, it was chosen e-learning has 3 pillars: interaction with the content, interaction with instructors and interaction between peers, an organized structure was taken, where a topic and two texts were selected for daily online activity, the lectures to the teacher teachers were scheduled during the educational time to have a greater number of attendance of residents who made a standard of 1 to 2 online activities to allow interaction, said contents were stimulated as active learning in a flipped classroom with education activities every day, teacher conferences were held chapter readings of selected relevant textbooks and clinical guides In preparation for residents, these topics chosen by the faculty were scheduled three times a week, online platform allowed faculty members to interact electronically by asking and answering questions directly from residents, 2 resident- led sessions were also scheduled to the other days. Being able to determine the following results, the evaluation of teachers has an attendance of 77% (n = 27) of clinical residents in comparison pre- COVID 66% (n = 23) (p = 0.289), discussions, magazines, clubs had an attendance of 80% (n = 28), 54% (n = 19) and 62% (n = 13) compared to pre-COVID of 48% (n ¼ 10), with the application of TrueLearn the residents 39 % of their questions assigned by 31 of 80 questions / week TrueLearn of 21 questions / week was compared (DE 37.19), 94% of the survey for residents was completed (n = 32), an increase in hours of education was reported from < 2 h / week (37.5% of respondents, n = 12) before implementation, after implementation at 6 to 8 h / week (40.0% of respondents, n = 13), 56.2% Clinical residents (n = 15) completed 40 to 60% of what was assigned weekly, only 12.5% (n = 4) did not complete any assigned readings, to the question why they chose to participate 90.6% (n =29) He cited his wish to ap listening to their colleagues during the presentation and 96.1% (n = 30) cited their important educational benefit, 71.9% (n = 23) improved their pre-COVID participation, 23 clinical residents 52.2% (n = 12) greater comfort with the informal educational environment.

[9]: The present research was carried out at Tsmile online dental education institutions, based in PR China, live online prosthodontic lectures covered contemporary clinical issues with 60-90 min instruction time, Attendance at these conferences is free and anonymous from any medium, these conferences can be viewed repeatedly, Learning behavior data obtained from the platforms, demographic was not evaluated, only participants with data points for each were considered variable were included for the analysis, we calculated the learning progress dividing the viewing time by the teacher's talk time, when the student has a progress of 95% it was considered completed, through the use of online classrooms to allow access to the courses, the participants have been divided into groups according to the time of their VF to the online classroom (VF 60 minutes before the start), group o punctual (VF <60 minutes before onset); and late group (VF occurred after the conference had started), Normally distributed continuous variables were presented as mean ± standard deviation, continuous variables were presented as median, count variables were presented as n (%), chi-square

test. squared for significant differences between conferences and VF time, for which IBM SPSS Statistics (a = .05) was used. of a total of 41 781 students who participated in 18 online prosthodontic conferences with a mean instructional duration of 77.17 ± 15.83 minutes, each conference was attended by 2321 ± 1454 participants, with 510 ± 404 participants, viewing time and the learning progress followed skewed distributions of a total of 13,098 participants (31.35%) watched the lectures less than 1 minute, almost half less than 10 minutes. With their learning progress failing to pass 10%, 19.51% of the participants learning progress values that exceeded 100%. The completion rate ranged between 9.27% and 31.85%, with an average completion of 21.97%, with significant differences from conferences (p <0.001). Students who visited the classroom online for the first time had the Highest completion rate of 50.75%, students whose VF occurred more than 60 minutes before the conference started had the lowest completion rate (14.00%) The completion rate of the first visitors to the site classroom web after conference started (late group) 19.09%. There were significant differences between the completion rates of each VF group (p <0.001).

[10]: The present investigation was carried out in Pakistan and Brunei with 330 students, students were sent a Google form through WhatsApp and Facebook Groups, the data was analyzed using statistical software SPSS 2.0., For descriptive statistics and Inferential statistics to understand the distribution of the study and the impact, the demographic of the students was taken into account, therefore, univariate analysis, multivariate logistic regression analysis, with the univariate analysis explored the characteristics of the sample and the level of satisfaction in the midst of COVID-19, a regression was performed to estimate the strengths demonstrated by the probabilities ratio (OR) with a 95% confidence interval (CI) for which the Spearman correlation coefficient was used to evaluate between preparation and satisfaction with learning with p <0.05. There was a questionnaire with the sections of Introduction, demographics, etc., the online class mode in lockdown-nil / Zoom app / Youtube live / Skype / Google Meet / Team Link / Audio materials or others, 5 items Use and access to online learning, Evaluate access and use of the online system, 5 item satisfaction with online use, the rating was made between 0 (low) and 3 (high). Demographic section 1 of the survey included scores of yes (1) and no (0) responses, on levels of satisfaction affected by the pandemic, of the 320 students 15% of Bruneians have a low or moderately low level dissatisfaction while more than 30% of Pakistanis showed signs of low satisfaction with learning, moderate-high to high signs were more prevalent among Bruneians (24.6% and 31.5%) compared to Pakistanis (18.4% and 17.5%), 70% of respondents were satisfied with using an online learning system Brunei and less than 50% were satisfied with online learning in Pakistan in the middle, about the Gender, the results were not significant among Bruneians (P = .133), not with Pakistanis (P = .431), the level of education as a variable was not a significant factor among Bruneians (p = 0.966) or Pakistanis (p = 0.986), learning was also insignificant p For Bruneians (P = 0.836) and Pakistanis (.624), however, residence status was significantly linked to student satisfaction in both countries, satisfaction with the online learning system was significant among Bruneians (P = .000) and Pakistan (P = .000), in the model p <.05, which indicates that the OR value of at least one variable was statistically significant, state of residence in Brunei (OR = 3.201, 95% CI = 1.358 , 7,457), Pakistan (OR = 2,094, 95% CI = 1,014.4,324) shows that people in urban area were more satisfied than rural in both countries, use of online learning (OR = 0.344, 95% CI = 10,161,1049), and etc. use it online during COVID-19 (OR = 0.405, 95% CI = 1,513,7,414) were protective factors for Bruneian duringthe COVID-19 lockdown.

3. Results

The results obtained are detailed in the following figure, where the data obtained in the review of the articles are presented as a summary:

Table 1: Referenced articles

Type of problem	Reference	Year	Technique used	Study location

Levels of attention and meditation	[1]	2020	Use of brain computer interface to measure levels of attention and meditation	Lima - Perú
Parents' experience with their children about online classes	[2]	2020	Questionnaire consisting of 41 closed questions and 2 open	Henan - China
Evaluate anxiety, depression in children between 5 -15 years old	[3]	2020	Questionnaire consisting of 47 questions	Bangladesh
Assess how children under 13 cope with confinement	[4]	2020	Questionnaire consisting of 20 questions	Lisboa - Portugal
Evaluate Breeding Practices During the COVID-19 Pandemic	[5]	2020	Questionnaire consisting of 52 questions	Turquía
Intercommunication between professionals and parents of children with special abilities	[6]	2020	Questionnaire consisting of 16 questions	Padua - Italia
experience of teachers and students during the pandemic	[7]	2020	Questionnaire consisting of 24 questions	Sonora, México
Implementation of an online surgical education curriculum for a general surgery program University of Southern California	[8]	2020	Free question quiz	California - USA
calculated learning progress by dividing watch time by teacher talk time	[9]	2020	Free question quiz	China
Evolution of online education	[10]	2020	Free question quiz	Pakistán y Brunei

Having carried out an analysis on the works mentioned in figure 2, we can indicate the following:

That the effects of the pandemic are causing changes in the behavior of people, with respect to education, in their different roles, such as students, parents, teachers, presenting in many cases symptoms such as anxiety, depression, due to the same fact to be in a single work or study environment and very different from what is used to. one of the factors that are causing is intercommunication, because the human being is very social and in the classrooms it was the ideal environment to socialize with students of the same age.

The results also indicate that necessary actions are being carried out to improve the distance study experience, both for teachers and students, in these actions educational materials are being designed to carry out asynchronous activities, platforms to interact between teachers and students, where Through these, being able to measure the progress of the student, this pandemic has changed the way we do

many things, including education, so this work tries to communicate how it is working and what are the improvements that are being produced to improve the development of online classes.

4. Conclusions

As a conclusión this review, it can be indicated that the pandemic caused by COVID- 19 has impacted all the activities of people as well as in all places. Education is one of the areas where this impact has been felt much more strongly, affecting not only students and teachers as responsible for the educational process, but also parents and family members because they were also participants in the educational process in this new form of distance education or in most cases online education.

The articles reviewed present the impact that the pandemic has had on educational activities from different observation points, from studies in educational centers, higher education, in highly specialized courses, in training courses, among others, where studies have been carried out. to measure the impact caused by confinement in education in all its aspects.

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