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EFL Learners During and Beyond Covid 19 Pandemic: Advantages, Challenges and Solutions of Online Learning

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Abstract

Institutions change their educational processes in a relatively short period of time to solely online with an aim to continue teaching and learning. We examined EFL students' attitudes about online learning, their ability to absorb knowledge, and their usage of E-learning platforms in this respect. A semi-structured questionnaire was used to conduct an online survey.225 students from King Khalid University one of the biggest university in KSA participated in the study. The goal of this study is to investigate the influence of the COVID-19 pandemic on the EFL learning process both during and after it. The benefits of online learning revealed in previous research appear to be diminishing, while the drawbacks grow more evident. In the context of the pandemic-induced crisis, the hierarchy of difficulties that occur in online learning shifts. The most major difficulties are technological challenges, and the EFL students faced issues at various levels. Students, on the other hand, also attributed the last position to a lack of contact with instructors or inadequate communication with them. The research implications for institutions and researchers are explored considering these findings. The findings also revealed the influence of different locations on students' views about the environment. The students did not show more inquisitiveness to continue online learning, if the universities go back to traditional learning. The co-variance matrix and objective function were also created for all the 30 questions.

Key Words: EFL Learners, Pandemic, King Khalid University, online learning, learning challenges, variance.

Introduction

Almost all universities in Saudi Arabia used the Blackboard platform for remote education and provided a variety of elective and general courses. This study investigated the problems and barriers encountered by university EFL students during the current global pandemic, as well as the potential facilities and solutions that may be given in the future to address these concerns. The goal of this study is to investigate the influence of the COVID-19 pandemic on the EFL learning process both during and after it. The university's practice with combined or blended learning prior to COVID-19 aided the pandemic's quick shift to e-learning. Prior to the coronavirus epidemic, blended learning was implemented in all university, colleges with certain common or selective courses utilizing the Blackboard platform. As a result, some faculty members gained valuable expertise utilizing the Blackboard platform for online education. These professors conducted training seminars on how to use Blackboard for online teaching for their colleagues at their institutions. The university's training and development section organized a series of online training sessions for all the university's faculty members in various colleges and departments.

The King Khalid University Deanship of E-Learning released a report on the educational operations that took place remotely during the summer semester. More than 17206 male and female students from various disciplines in the university headquarters in Abha and neighboring governorates in the Asir Region benefited from the services. As per report King Khalid University Administration of Media and Communication, the Dean of e-learning at the university, explained that the dimensions of learning management system and virtual classes during the summer semester 1442 AH has reached 236810 assessments in addition to 18,007 discussion boards, 13554 files reviewed, and 34,815 virtual classroom sessions. He also pointed out that the statistic of technical support during the summer semester was 1971 Support processes via (live chats, phone calls, WhatsApp, e-mails, office visits).

In this work, we refer to language acquisition as second language or foreign language learning. In this century, students have been referred to as "digital natives" as coined by Prensky[2001], which has led to the creative use of multiple technology as technology is simple to master and then apply to learning. This provides learners with the opportunity to enhance their English skills in preparation for real-life conversation Warschuaer &

Liaw, [2011]. Learners are contented when their plans of the learning setting, course design, teaching techniques, and learner performance are realized, according to Huang & Wang [2012]. Even if these researchers' dimensions are practical, additional aspects that influence learner satisfaction must be considered in such sudden remote learning environment.

Computer Assisted Language Learning (CALL) The method of teaching and studying English as a second language (ESL) has been around for a long time. There is still much to learn about the possible impact of incorporating CALL into the language learning process, and it's good to be reminded of that. Researchers like Leakey [2011] believe that using computers in language teaching and learning can help students improve their language skills. Leakey cites the advantages of computer assisted language learning [CALL] tasks for learning all four language skills as well as pragmatic and cultural gains. Based on current and prior research in CALL and e-learning, the author provides a complete model for assessing not just the software used in language learning, but also the teaching and learning that takes place in computer-based settings, as well as the digital platforms themselves. For example, Ja'ashan [2015] looked at students' perceptions and attitudes toward blended learning in English classes. 20% to 70% percent of the course content was given online through blended learning.

As reported by UNESCO Institute for Statistics (UIS) [2018] prior to the epidemic, the globe was already experiencing significant obstacles in realizing the possibility of education as a basic human right Despite nearly universal early grade attendance in most countries, more over 250 million children were out of school, and roughly 800 million people were illiterate. This situation further worsened due to ongoing pandemic. And here is one of the main issue to work on education during and beyond pandemic.

Educational and entertaining content engages students and enhances their interest in learning, which research shows is correlated with academic achievement. The well-known characteristic of curiosity is that it is a boon to learning. This might mean using AR, movies, or podcasts in their content creation. For example, coursework may contain recordings, or students may engage with those from all over the world via video. In moments of critical situations, educational institutions should thoroughly consider the many online learning and education technology options that are available. The possibilities this generates may later be reflected in new power relationships, new kinds of student inequality, and other unforeseen results as researched by Selwyn [2020].

Literature Review

According to the data Saudi MOE [2020], the Ministry of Education wanted to avoid any interruption in education, even if it was only for a single day. Distance education, on the other hand, had to be accepted as a substitute for face-to-face education. It was an attempt to broaden the range of options available to pupils, regardless of their location or technological skills. All Saudi university deans of distance and e-learning were gathered to collaborate and coordinate university initiatives, share knowledge and resources, and aid as needed.

Arab News [2020] reports UNESCO applauded Saudi Arabia's education ministry for its efforts to combat the coronavirus epidemic. Saudi Arabia, according to a study by the United Nations Educational, Scientific, and Cultural Organization, has "ensured the continuation of the remote educational process and maintained the safety for more than six million students in public schools and universities." Stefania Giannini stated the KSA has made significant progress in e-learning and remote education throughout the epidemic during a discussion with Saudi Education Minister Dr. Hamad bin Mohammed Al-Asheikh on the sidelines of the G20 education minister's conference in Catania, Italy.

During the COVID-19 epidemic, ur Rahman [2020] conducted a poll of fifty English language teachers across the Kingdom regarding their opinions of online learning and found that 68 percent of the respondents thought that learners are less motivated to learn online or virtual classes. This lack of motivation isn't always caused by the online learning environment.

According to research by Alabasi and Alghamdi [2019], WhatsApp is one of the most utilized applications by university EFL students, who see it as a tool for improving their reading, writing, and grammatical skills.

However, because of how users' data is utilized and shared, the program has sparked several privacy issues. Another study looked at the challenges of online learning in medical education during the COVID19 outbreak, according to Rajab, Mohammad, Gazal, and Alkattan [2020]. 208 students and faculty members from Alfaisal University's College of Medicine in Riyadh, Saudi Arabia, participated in the study. The research identified communication, assessment, online education experience, technology use tools, time management, stress, and coronavirus disease stress as barriers.

As reported in Saudi Gazette recently [2021] the coronavirus pandemic has created several educational challenges, according to Professor Mark Brown, Director of Ireland's National Institute for Digital Learning, who praised the Kingdom of Saudi Arabia's distance learning experience as well as its development strategies and capacity building to the Kingdom's Vision 2030. Adding to the same article Dr. Jennifer Mathes, CEO of the Online Learning Consortium (OLC), stated that the COVID-19's educational implications should not be overlooked, and that the OLC has collaborated with the Saudi National e-Learning Center to support the Ministry of Education's strategies and future in line with the Kingdom's Vision 2030. Dr. Mathes further stated that the Saudi Ministry of Education examined the state of e-learning at all levels of education throughout the epidemic and invested in digital education programs and technological solutions to improve distant learning and assure its efficacy and success.

Methodology

The perceptions of university EFL students concerning online classes, as well as the obstacles they face, are investigated in this study. The research is based on a quantitative method with a sample survey. It makes use of both primary and secondary data sources. The participants in this study were university students who were chosen using a basic random selection method. To obtain primary data, a structured Google Forms questionnaire was employed. The questionnaire was divided into two pieces. It was also important to understand the confidence level which they experience and are ready for practical use of their learning beyond or after COVID-19.

The first section collects data on the pupils' socioeconomic level and the ICT gadgets they utilize. The second section of the survey examines students' attitudes about online learning during the COVID-19 epidemic and the problems they face. During the months of January and February of 2021, 225 students from various campuses of KKU replied. Students' attitudes regarding online classes were gathered using a Likert scale.

Due to the constraints imposed by the recent epidemic and lockdown, we were unable to consider issues such as demography, gender, and age when selecting respondents, and so had to rely on a random selection of respondents. Though we were unable to resolve the issues, the results we obtained are consistent with the survey's aims, which were to determine the efficacy of learning the English as a Foreign language and related skills over the internet. A series of questions "Likert style" questions based on five-level replies were included in the poll.

The study answers the following questions:

Q1. What are the obstacles of online EFL learning, and will students be able to do their best while studying online?

Q2. Was learning from home and learning in a perfect academic environment was a challenge?

Q3. Did students in small areas with poor internet access benefit from online learning?

Q4. Was learning 4 language skills was like learning literature?

The objectives of this research are as follows:

- Determine the challenges and roadblocks to e-learning that EFL students faced during the COVID-19 crisis.
- Recognize and employ the most effective ways and modes for engaging and motivating EFL learners in e-learning as this is also a practical course not just theoretical.

- Educate EFL students and teachers about the latest platforms and applications that can help improve and reinforce instruction during pandemics.
- Investigate the ramifications of the university's sweeping shift toward online learning.

Results and Findings

The respondents were from various level of the university. This clearly showed the mindset of the EFL learners, the issues which they were facing. The total number of students who participated in the survey were 224, which included both male and female students as well as married and unmarried. As the marital status also plays a very important role on the psychology of the learner.
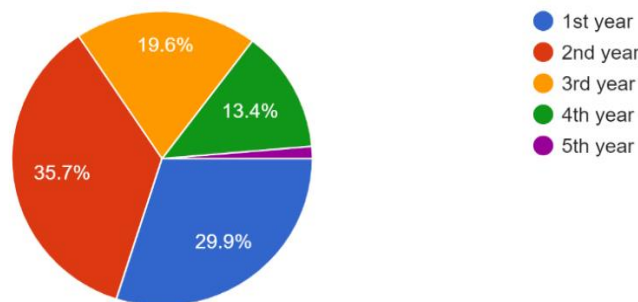

Fig.1Percentage of the students participated in the survey year wise.

Figure 1 shows the variation in the academic level of the respondents. The 2ndyear students are 35.7% and participated in the survey in the highest number and the least were the students of level 5. The study by Babayiğit, Cizrelioğullari, and Altun [2020] attempts to find out what students think about using online learning resources in the classroom. Three hundred university students from Turkey, Kurdistan, and the Arab world who were enrolled in an online learning course were asked to complete a ten-item questionnaire. Students had both good and negative opinions regarding online learning, according to the research.
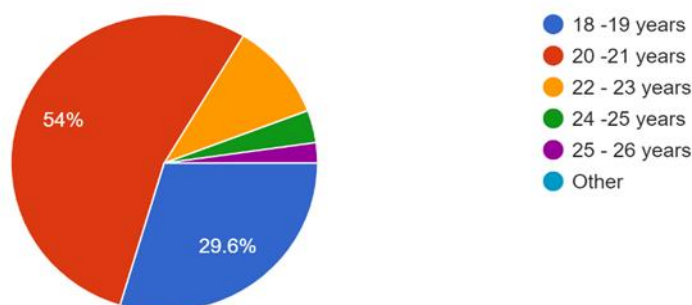

Fig.2 Age of the students participated in the survey

Besides this the respondents were of different age group. As it was important to know the age of the students to understand the responses. Deciding which technologies to support for teaching and learning—and how to support them—depends, first, on our ability to learn about each emerging development as of here the age factor is very important. Technology attracts the young generation more. Figure 2 shows the age of

the students who respondent in the survey the maximum number of the EFL learners were of the age from 20-21 year with 54% of the total participation which holds more than half of the total responses.
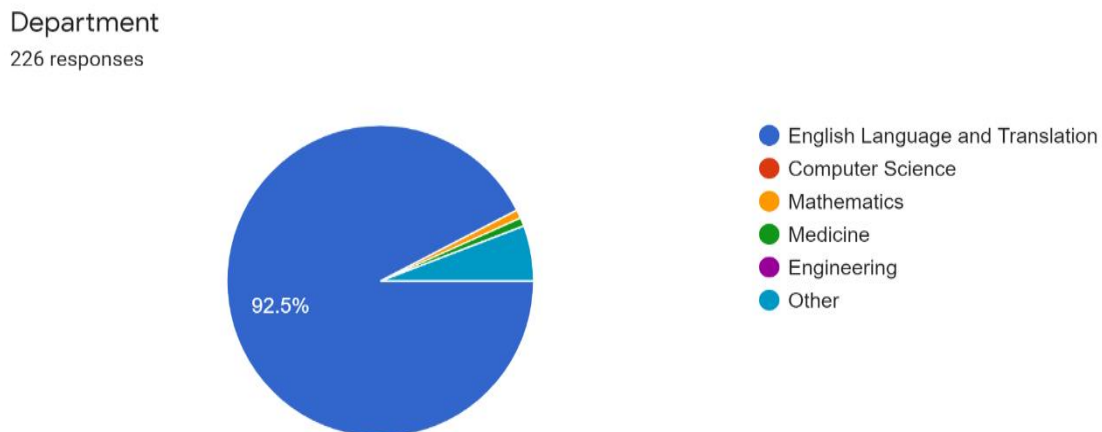

Fig 3. Maximum number of participants were from English Language and Translation

The study was mainly done on the EFL learner. Out of the total responses the students from the department of English Language and Translation were of 92.5% out of the total participants. Which made the analysis exact for the researchers. With its accessibility, immensity, wide digital surroundings, and capacity to connect with classmates/instructors from other nations, the digital world has the potential to change the classroom, particularly in education. As a result, openness may be used to digital education or distance learning. This openness is defined by the Collectif de Chasseneuil [2020] as follows: [A]n organized and targeted educational environment which takes account of the learner's uniqueness in [. . .] his or her individual and collective dimensions supported by complementary learning situations in terms of places, timing, educational resources, human and technological mediations.
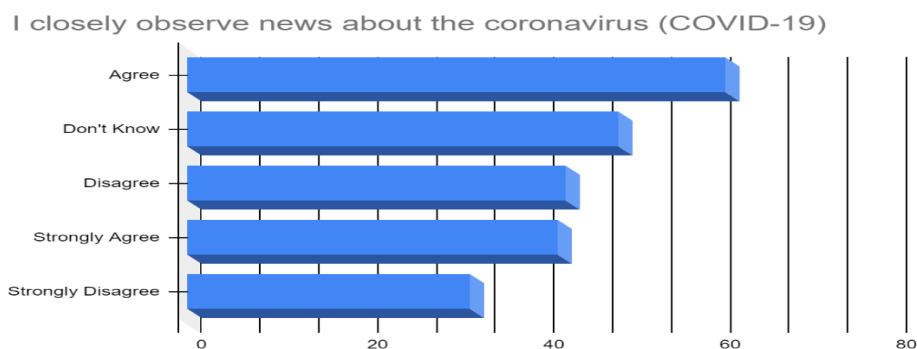

Fig.4 The psychological impact of pandemic on students

Several research on university students' mental health have found a significant frequency of psychological problems. Widespread epidemics of infectious diseases, such as COVID-19, are linked to psychological discomfort and mental illness symptoms, according to Bao et al., [2020]. In a research done two weeks following the epidemic in China, 14.4% of the kids were found to have post-traumatic stress disorder research done by Liang L[2020]. In the first week of their isolation, 50.43 percent of the participants in a poll done at a Spanish university reported experiencing moderate to severe psychological anguish as stated by Odriozola-González P [2020]. Similarly, Islam et al. [2020] found that 15% of Bangladeshi students suffer from moderate to severe depression, while 18.1 percent suffer from severe anxiety. The influence appears to be greater among older students who paid for their higher education themselves.
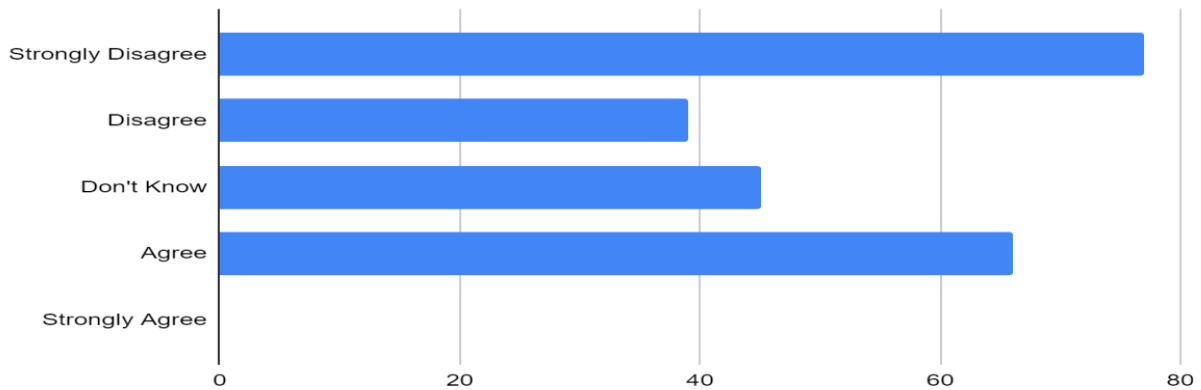
Fig. 5 The level of interest students had in online classes

Nearly half of the teachers in the study done by Educar Chile, [2020] acknowledged delivering learning aids or resources (whether in the form of physical media or digital files) to their students, although they had not taught in class. Only 18% of schools surveyed indicated that they give live courses, which are most frequent in private and secondary education. Another study IIE, [2020] on Chile's teaching profession found that sending and homework activities were 81% of the activities in the curriculum, but only 9% of teachers reported that their pupils all had the skills necessary to use distance education applications.

Using an interactive classroom setting allows teachers and students to receive instant feedback regarding lesson quality, delivery, and experience. Teachers in classrooms can monitor the body language and nonverbal signs of their pupils to see whether adjustments should be made to the way they teach their students. Additional questioning and customized attention in the classroom environment is advantageous as compared to online platforms since it provides students with more clarity about things being taught.
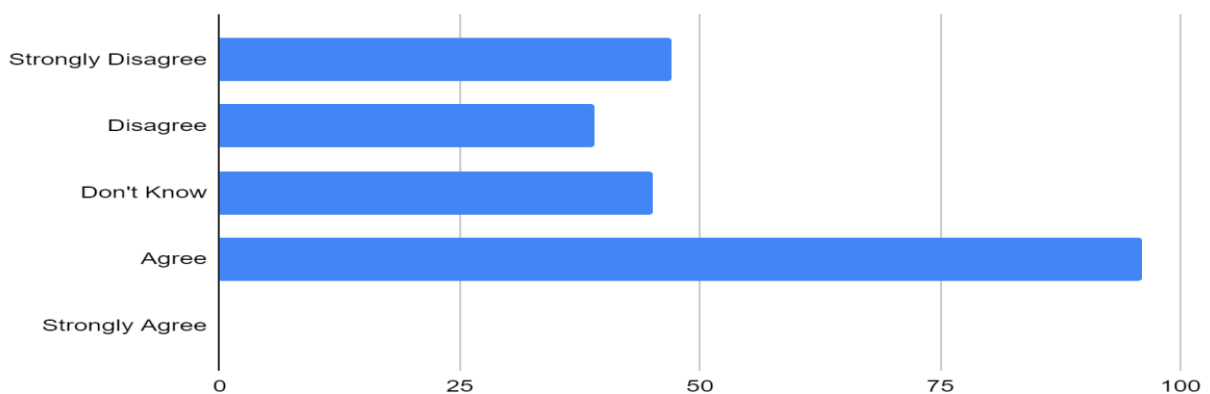

Fig 6. EFL Students faced problems during online classes

The results shown in this study illustrate that the learners in the study demonstrated many constructions of engagement with their online English course in connection to several constructs of engagement. Learners demonstrated students' learning through classroom participation, contact with instructors and classmates, skills practice, emotional interest with the class topic, and performance in class, as evidenced by survey responses. Furthermore, their pleasure and engagement were found to be positively correlated. Nearly 90% of the respondents agreed that their experience was not satisfactory while learning English as the Foreign language.

Graham [2014] performed another research to see how social media affected Humanities students at a British institution when they were learning outside of the classroom. The findings of the survey revealed that using social media for learning purposes increased students' involvement with learning outside of the classroom. According to a research by Tratnik [2017], students' satisfaction levels with online lessons was significantly different from those in traditional face-to-face English as a foreign language programs.
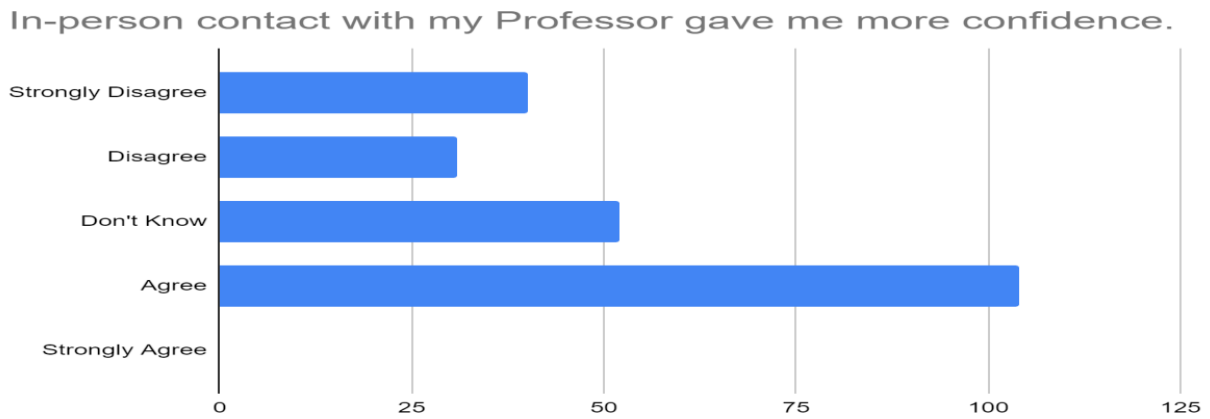
In-person contact with my Professor gave me more confidence.

Fig. 7 Students missed the in-person contact with their professors.

However, colleges and educational institutions in Saudi Arabia have demonstrated their efficiency in providing education, particularly in university education, during the epidemic. A study conducted at King Khalid University sought to gauge academic staff satisfaction with the suspension of traditional teaching and the shift to online education. The results revealed that 55.9% of participants 'agreed' or 'strongly agreed' that the abrupt shift to web-based education went smoothly, and 57.6% 'agreed' or 'strongly agreed' that giving lectures remunerated them. The above data shows that EFL learners were more comfortable and at ease in learning the language with their professors' face to face rather then online. Only 25% students felt that they do not need professors face to face in the class, where the maximum number of students expressed a great need of professors.
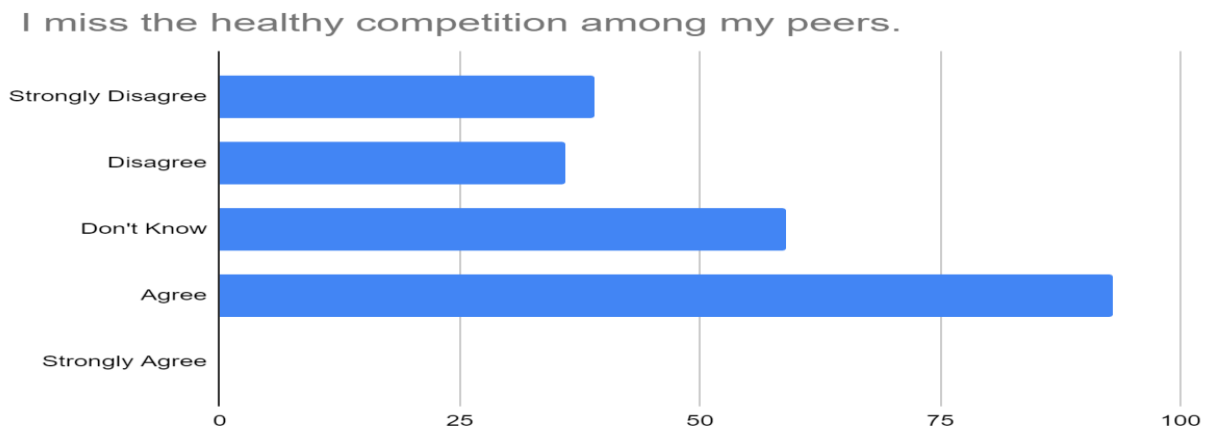
I miss the healthy competition among my peers.

Fig. 8 Healthy competition among the peers was missed.

According to UNESCO-UNICEF-World Bank Joint Survey, May–June 2020, some nations have loosened their limitations to stabilize their economy, such as by reopening schools, while others have remained cautious and have kept their schools closed, because of concern of a "second wave" of instances of COVID-19 cases. In mid-July 2020, about one billion learners, or around 61% of the global enrollment, were be affected.
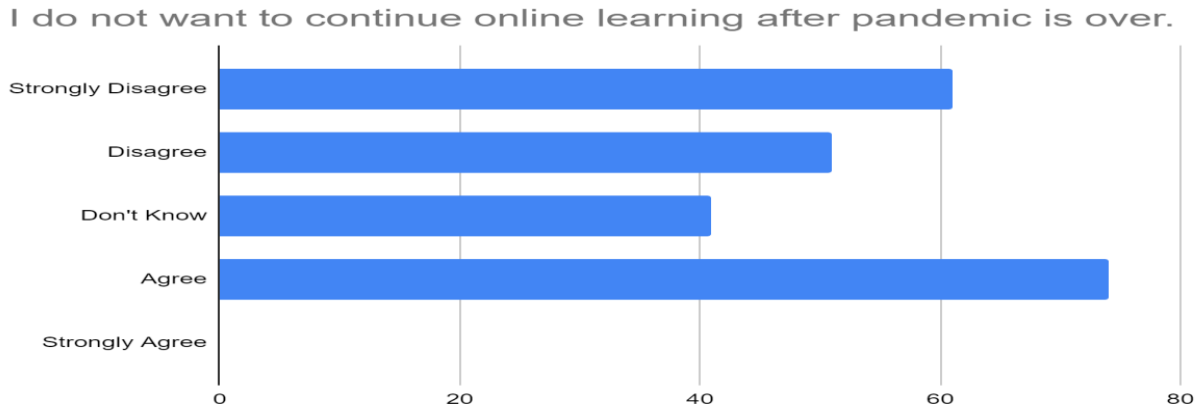
Fig. 9 Students lack interest to continue online classes after pandemic

Finally, if techniques that include descriptive analysis are used, as discussed in, additional lessons will be learnt as reported by Alshehri [2019]. According to his research, we'll need to do some statistical analysis to compare pre-crisis performance versus post-crisis performance. The performance includes student accomplishments, teacher accomplishments, and curricular accomplishments. This type of research can help determine whether the transition impacted the quality of regular education, whether the risk plan assisted in achieving the goals of the courses, and whether further work is needed to improve the risk plan and discover alternatives.

As the above data collected from our survey clearly shows thar nearly 80% of the respondents are not at all interested in online learning after pandemic.

S is a quadratic function of the parameters in linear least squares, and it is used to calculate the objective function. The matrix S is to equate with equation 1 for developing the co-relation parameters.

$$S = \sum_i W_{ii} \left(y_i - \sum_j X_{ij} \beta_j \right)^2 (1)$$

When just one parameter is present, The S graph will be a parabola in relation to that parameter. If two or more parameters (as long as the standard equations matrix X^T WX is positive-set), concentrate ellipses will be generated by any pair of parameters. The ellipses' centre includes the smallest parameter values that are possible. As a consequence, the universal objective function is elliptical paraboloid in form. Only the parameters with the lowest value in the area where the truncated Taylor series is simply a reasonable approximation to a template and the objective function is not quadratic have a quadratic objective function in NLLSQ.

$$S \approx \sum_i W_{ii} \left(y_i - \sum_j J_{ij} \beta_j \right)^2$$

The greater the deviation between the parameter values and their optimum values, the greater the deviation between the outlines and their elliptical form. Consequently, initial parameter estimates should be as near to optimum values as is reasonably feasible at the time of estimation. In addition, it explains how divergence may occur, since The Gauss-Newton technique is converging only if the goal function in parameters is approximately quadratic. For each Questions the objective functions are defined which has the range between 0-1 (Table 1) ,where the highest value represents the best relations between particular Question parameters and lowest the least respectively. The co-variance matrix is plotted in fig 10.

Question_Number	Objective Function
Question No. 1	0.95
Question No. 2	0.96
Question No. 3	0.96

Question No. 4	0.95
Question No. 5	0.94
Question No. 6	0.96
Question No. 7	0.94
Question No. 8	0.94
Question No. 9	0.95
Question No. 10	0.96
Question No. 11	0.95
Question No. 12	0.95
Question No. 13	0.96
Question No. 14	0.96
Question No. 15	0.95
Question No. 16	0.94
Question No. 17	0.96
Question No. 18	0.95
Question No. 19	0.94
Question No. 20	0.95
Question No. 21	0.96
Question No. 22	0.95
Question No. 23	0.95
Question No. 24	0.94
Question No. 25	0.96
Question No. 26	0.95
Question No. 27	0.96
Question No. 28	0.96
Question No. 29	0.93
Question No. 30	0.97

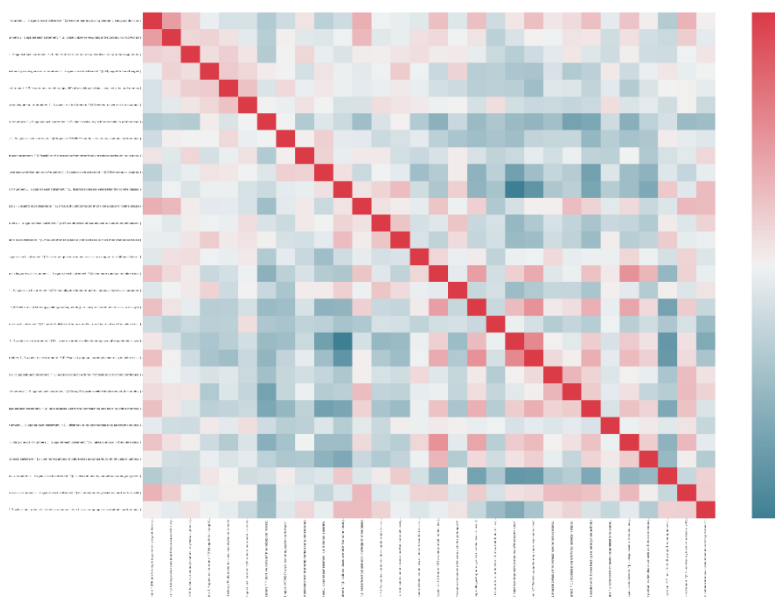Table 1: - Showing Objective function with Questions values

Fig 10 :- Showing co-variance matrix (heatmap)

Systematic error propagation

Because each of the components utilised in the final result computation has its own preference, systematic mistakes in sub-measures have a direct effect on the overall bias of the ultimate result. For example, a balancing error may lead to systematic Question weight errors.

Systemic faults can only be identified and prevented by comparing (calibration) with standard and external reference and control questions. The error rate was found to be closely linked to the relative standard deviation (RSD), with larger deviation for higher error datasets. The percent RSD values for each Question value are shown in Table 2.

Question_Number	RSD (%)
Question No. 1	3
Question No. 2	4
Question No. 3	3
Question No. 4	4
Question No. 5	5
Question No. 6	4
Question No. 7	3
Question No. 8	4
Question No. 9	3
Question No. 10	2
Question No. 11	2
Question No. 12	3
Question No. 13	4
Question No. 14	4
Question No. 15	5
Question No. 16	5
Question No. 17	3
Question No. 18	3
Question No. 19	3
Question No. 20	3
Question No. 21	2
Question No. 22	2
Question No. 23	3
Question No. 24	5
Question No. 25	3
Question No. 26	2
Question No. 27	5
Question No. 28	3
Question No. 29	3
Question No. 30	4

Table 2: - Showing RSD with Questions values

Conclusion

According to a report of UNSD [2020] the COVID-19 epidemic has caused the greatest disruption to education systems in history, affecting almost 1.6 billion students in over 190 nations across all continents. School and other learning facility closures have touched 94% of the world's student population, rising to 99.9% in poor

and lower-middle income nations. According to Chinna K [2020] acceptance was the most popular anxiety-relieving technique, while Seeking Social Support was the least popular. Male students used more mental disengagement strategies, whereas female students employed more social support strategies. The pupils are ill-equipped to deal with the "new standards." The need for advice, counseling, and help for the students to get through these trying times is one of the recommendations.

The current findings indicated that the COVID-19 pandemic lockdown had a negative effect on the academic performance of 96.7 percent of participants to various degrees. This finding is consistent with prior research indicating that COVID-19 has a significant effect on students of various degrees, specially which required practical learning at different levels. Taking online courses has been shown to have a detrimental effect on students; a decrease in students' progress and success has been linked to taking online college courses rather than traditional in-person courses as studied by Bettinger et.al [2017].

The researchers of the study came to conclusion that in-person education fosters close relationships between students and teachers, as well as between students and their classmates, and gives direct access to the complete range of academic and extracurricular programs offered by the university. English learners have previously been identified as being among the learners most impacted by COVID-19's interruptions to in-person learning. Virtual learning has frequently eliminated chances for EFL learners to engage in English-language discussion with professors and peers, as well as get intense language teaching at frequent intervals. Additionally, additional language hurdles and constraints made it more challenging for families of English learners to assist their children in academic success throughout the epidemic. Additionally, preliminary data indicated that the pandemic's impacts exacerbated gaps in EFL learners' learning results to some extent.

It is been observed that as per the co-variance matrix generated in fig 1, its been directly concluded the direct correspondence between question 1,4,6,7,9,10,17,19,22,24,25,28,29. This question has direct dependability which suggest that covid19 has effected their life. Questions 3,5,13,14,21,30 shows the minor relations with regards to feeling characteristics and data differentiation is huge and can be concluded only if additional source of information is provided. All the objective function generated for creating the variance matrix is above 94% and residual standard deviation was below 5% which shows good data stabilization.

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