Common online early childhood education Patterns during the Corona Pandemic

Rania Hamdey Elwan
Aml Salah El Deen Muhammed El Said
Hanan Abdul Ghaffar Attia Ebrahim
Norhan Ali Housni Hassan Nounou
Noha Awad Mousa
Sabrin
Alshuridah Sarah Majed
Wadha Yusef Al-Baker

DOI: https://doi.org/10.37178/ca-c.21.5.085

Rania Hamdey Elwan, Assistant Professors, College of Education, Early Childhood Department, Imam Abdulrahman Bin Faisal**-** University, KSA

Aml Salah El Deen Muhammed El Said, Assestant professor in early childhood education

Hanan Abdul Ghaffar Attia Ebrahim, Ph.D. in Kindergarten Education

Norhan Ali Housni Hassan Nounou, Lecturer, Department of Early Childhood Dep - College of Education Imam, University, KSA- Abdulrahman Bin Faisal

Noha Awad Mousa, Department of Self Development, Deanship of Preparatory Year and Supporting Studies Imam Abdul Rahman bin Faisal University

Sabrin, Abdelaty Labib Abdelaty Assistant Professor of Early Childhood Education department, Faculty of Education Imam Abdul Rahman Bin Faisal University Dammam.

Alshuridah Sarah Majed, Specialized in Early Childhood Programs

Wadha Yusef Al-Baker, Department of Early Childhood, Faculty of Education, Imam

Abdul Rahman bin Faisal, University Kingdom of Saudi Arabia.

Summary

This research aims to identify the most common online early education patterns and the reasons why parents choose such patterns. It also aims to identify the most significant statistical differences to be applied to parents according academic qualification, number of children they have, and their occupation, following the descriptive methodology. This has been applied to a sample consisting of 252 parents of the children in early years of education. A questionnaire of three dimensions has been used, and it has been consistent with the subject of the research. This research concluded that the most common online early education patterns are exemplified in

etting education through electronic devices such as the educational tablet and mobile phones. This pattern received the first place with a percentage of 75.4%., and an arithmetic mean of 2. 26.. The least common education pattern is exemplified in education through audio platforms (The radio and the Broadcasting), receiving the 13th place with a percentage of 43.65% and an arithmetic mean of 1.31. This is because electronic devices make available the opportunity for direct interaction and communication with the learner. This research concludes that there are no significant differences between the individuals of the sample regarding being applicable owing to the research variables. This research recommends that it is necessary to get parents, and their children trained and qualified to employ and use technology in education.

Key Words: Child- Virtual education- technological programs – education patterns- mobile phones.

Introduction

At the very beginning of Covid-19 Pandemic, the 2019 UNESCO report, titled "Corona Pandemic created significant differences in education all over the world", states that there is a real education crisis that resulted in the fact that 90% students from around the world got affected by the closure of schools. Moreover, millions of students do not enjoy pursuing their home-based education using laptops or smart phones and the internet. Therefore, they completely stopped studying. Furthermore, children, especially females, living in poor areas suffered greater damage during the Corona Pandemic [1].

Two years later, as the crisis continued and the closure of schools lasted, the April 2020 UNESCO report, on "Gaps of online education", states that 830 million of students in poor countries of low income cannot have access to computers to use them in learning. This, therefore, makes the idea of virtual education a dream for millions of learners around the world. Additionally, in the same report, Robert Jenkins expert of early childhood at UNICEF, expressed his opinion stating that countries are facing a threatening crisis in education and that there are attempts to end the crisis using untraditional solutions for online education techniques to face any threats to education..[2]

Additionally, the latest UN report, August 2020, titled "My Policies in Brief", education during and post-Covid-19 Pandemic" states that Corona caused the most significant shutdown in education, as almost 1.6 billion students in 190 countries around the world stopped going to schools. This threatens of making greater differences in education and limiting any opportunities for children and the young people. It also increases the school dropout of almost 23.8 million children and adult students. This also affects other aspects related to nutrition, health and income, violence, and all aspects of sustainable development. Accordingly, the report recommends building educational systems that have the ability to adapt, to hasten change in teaching and learning (United Nations, 2020). Based on what has been mentioned above, the importance of this research is clearly exemplified in the following:

Attract the attention of the organizations concerned with child education to carrying out expansion in education through applying the most commonly used education pattern by child parents.

Making online educational videos and courses for teachers and child parents on how to use different online learning patterns, making teaching and learning alternatives for their benefit.

Providing online learning sources that the families of the children can use in accordance with their economic and social potentials.

Providing data that helps in beforehand planning to benefit from any repeated situation and in order o ensure the non-existence of any gaps that affects education

which is considered an important element in sustainable development for all the peoples of the world.

Therefore, the current research aimed to reveal the most common patterns in childhood distance education and the reasons for choosing them in learning so that those responsible for education at this stage can adopt the most common pattern and develop or innovate other patterns suitable for this stage, thus facing the challenges facing children in distance learning and trying to overcome them, which increases their motivation to learn [3-8].

Theoretical framework:

Online Education During Corona Pandemic:

Corona virus (Covid-19) began spreading all over the world swiftly. It is really an acute and dangerous virus that emerged for the first time in Hubei Province, China on 11th March, 2020. Corona infection is transferable from a human to another. It has become a source of threat and worry to the health of humans all over the world [9, 10].

Corona Virus resulted in the death of many people in the Arab and foreign countries. As a result, many strategies have been provided to limit it: closure of educational institutions, providing alternative methods and techniques of online or electronic education for all ages of learners, whether they are at primary schools, preparatory schools or university students [11].

This was done with the objective of limiting the virus and mitigating its severity. According to the data of the UN and UNSECO on education more than1.2 milliard of students of different education stages all over the world have stopped face-to-face learning as of the middle of May, 2020. In other words, they stopped learning in the traditional way. Therefore, most countries have created different approaches to pursue introducing their educational services through presenting different online education methods such as internet-based education: virtual classrooms, and TV and radio-based education [10].

Although online education requires preparations, skills and knowledge to be effectively applied in schools, especially of utmost priority in kindergartens, and in pre-university stages, it is not new to university stage. Online education has been imposed as a national preventive procedure to protect the health of children and ensures their safety[12]. It has been necessary for the students to pursue their activities using the internet technologies such as electronic applications, blogs, social media platforms, computer, video, audio sources, virtual classrooms, Google Class, Zoom and Edmodo[13].

Positives of Online Education

Online education has many positive traits represented in the following:

The educational content is available, it can be audio or video recorded. It can be repeated at any time [14-19].

It is flexible in terms with time and place. Its cost is affordable for students.[20].

Information can be easily accessed at home. This saves time of collecting information and processing it.

It provides opportunities for self-learning, independence and self-reliance.

Unlike traditional education, many students participate in the classrooms of online education.

Students with special needs are given many opportunities to learn effectively[21].

Negatives of Online Education:

Despite the fact that online education has many positives, it has negatives as well and they are as follows:

There is no instant feedback that answers the questions of the learners about some online education patterns[22].

There is a difficulty in interacting and communicating with colleagues and teachers directly.

It requires an accurate planning and continuously fast internet connection, high costs to prepare periodicals by those who are specialized in education.

Some learners do not know well how to attend in virtual classrooms and deal with devices and applications to receive vides via the web [23-27].

According to what has been mentioned above, online education has some positives and some negatives in student education. This has been demonstrated by the results of many previous studies such as [20, 28-31]

The studies mentioned above demonstrated some result and they are as follows:

Students had a positive attitude towards using virtual classrooms in learning. They were also involved in learning and motivated to learn.

The performance of students in electronic schools' standardized assessments was worse than the performance of students in traditional governmentally affiliated schools and in traditional schools.

The environment of online education has had an effective role in the development of primary students' academic acquisition.

The environment of Google Classroom has the greatest value in being easy to use. The students have had positive situations towards using Edmodo in their courses.

There are relatively positive indicators with regard to the students having access to the virtual learning environment and also with regard to the relationship between their access and their performance.

Research Problem

During the health-related crisis caused by Corona pandemic and according to many reports issued from many institutions affiliated to the United Nations or to press, a crisis related to education has emerged. Such crisis is of relevance to lack of training in the field of technology and the use of digital technology by teachers, students and their families. This resulted in school drop-out. Students stopped going to school probably for reasons related to their being illiterate about technology patterns used in online education. It may also be resulting from lack of material potentials that is related to the availability of technology and training on how to be used during online learning process. Therefore, it has become necessary to carry out the current study which is attempting to identify the most common online education patterns from the viewpoints of child parents. They are key facilitators and the first helpers in this kind of alternative education that is parallel to the mainstream education system. In addition, parents are the worthiest to illustrate the advantages and disadvantages of every education pattern through the helping hand they give to their children in home-based education particularly during early childhood [32-36].

The previous (August 2020) report of the United Nations demonstrated that school drop-out rate in primary education schools amounted to 86% of the number of students registered in the primary stage. Accordingly,

The research problem is exemplified in the following questions:

1- What are the common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents?

2- What are the reasons behind the parents' preference of such education patterns for their children?
3- Are there differences of statistical significance in Parents' Form of Online Early Childhood Education during the Corona Pandemic according to the variables of this study: (educational level, number of children, job titles of parents)?

Research Methodology

This research is based on using the Analytical descriptive methodology that describes the phenomenon, collecting the facts and data and observations determining the theoretical framework.

Research Sample

The sample of this research consists of 252 subjects (child parents) who have one child or more aged from 5 to 9 years old. They were selected randomly and they are from different Arab countries: Egypt (123 parents), Iraq 54 parents, and Syria, and other countries 75 parents. They were collected using social media platforms due to Corona Pandemic.

Research Tools

The research tool used consists of a questionnaire of online common education patterns in early childhood education in some Arab countries. The questionnaire comprises three dimensions: pivotal data, online education patterns and the reasons behind the preferred education pattern.

Validity and reliability of the tool of the study:

Questionnaire Validity means making sure that it will measure what it has been prepared for; Validity also means that "the form includes all the elements that must be included in the analysis on one hand, and clarity of its items and vocabulary on the other hand, so that it is understandable for those who use it".
Validity of the study tool has been confirmed through.

A- Apparent- Validity of the tool

The researcher identified to what extent the study tool is valid in measuring what it has been prepared for and then it is refereed by number of arbitrators from university staff members. In the light of the views of arbitrators, the tool of this study has been prepared in its the final form.

B- Validity of the internal consistency of the tool

After making sure of the apparent Validity of the study tool, it has been applied in the field. After that, Pearson correlation coefficient was calculated to know the internal validity of the questionnaire through calcualting correlation coefficient between the score of each axis in the questionnaire with regard to the total questionnaire score, as is illustrated in the following table:

Table (1)

Shows the correlation matrix between the dimensions of the questionnaire and the total score

Dimensions	Correlation Coefficient	Sig. Level
Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents	0.95	0.01
The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns:	0.98	0.01
The Reasons why other education patterns are not used	0.98	0.01

From the table above, it is evident that there is a link among dimensions of the questionnaire at the level of significance 0.01. This confirms that the questionnaire has a high degree of credibility.

Reliability of the Tool:

Cronbach's alpha equation has been used to confirm the internal consistency of the items of the tool. Thus, reliability coefficient was extracted on the full tool level and the dimensions level. The following table shows the reliability coefficient and dimensions of the study tool:

Table (2)

Reliability coefficients for the dimensions and the tool as a whole

Dimensions	Reliability coefficient
Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents	0.95
The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns:	0.98
The Reasons why other education patterns are not used	0.98
The questionnaire as a whole	0.98

Given the results in the previous table, it is clear that the reliability coefficient for the axes of the questionnaire and the total score is high. Based on this result, the reliability level of the contents of the tool is appropriate from the standpoint of scientific research

.

The description of the study sample characteristics

This study is based on a number of variables related to the personal characteristics of the study sample. In light of these variables characteristics of the study sample can be determined as follows:

Table (3)

Distribution of the study sample

Variable	Response	Frequency	Percentage (%)
Educational Level	Primary	27	10.71
	Preparatory	6	2.38
	Secondary	0	0
	Three-year technical Education certificate	14	5.56
	Bachelor holder	51	20.24
	Master degree and higher	129	51.19
	Other	25	9.92
	Total	252	100
Number of Children	Less than three children	187	74.21
	Three children to less than 6 children	63	25
	From 6 children to more	2	0.79
	Total	252	100
Do you know?	Yes	158	62.7
	No	94	37.3
	Total	252	100

The table show description of the study sample characteristics based on a number of variables related to the personal characteristics of the study sample.

Statistical methods used to analyze data:

Study questionnaire which represents the point of view of the study sample has been prepared in a way that meets the objectives of the study and facilitates input of the study variables on computer so that they can be analyzed by SPSS. Data has been dealt with at the level of significance 0.05 and 0.01 for the description and analysis of the study data.

Statistical Package for the Social Sciences, (SPSS) version 21, has been used; percentages and averages have been used to describe trends of study vocabulary towards the variables of the study. To determine the length of the cells of Quinary Likert Scale (lower and upper limits), the scale was calculated (3-1 = 2) and then divided by 3, which is free levels: (high, medium, low) . Next, the value of (2/3 = 0.66) has been added to the strongly disagree value on the scale (or the beginning of the scale which is the right 1). Therefore, strongly disagree category was from 1 to 1.66; disagree category was from 1.67 to 2.33; May be category was from 2.34 to 3.00. Thus, it becomes possible to rate means for each item of the questionnaire axes as well as for the overall mean of the study.

Numorous appropriate quantitative and statistical methods have been used according to the nature of the study questions and to the level of measuring the overall variables of the study.

Statistical treatment has been done through using Statistical Package for the Social Sciences, (SPSS) version 21, and the methods used were:

Descriptive statistics methods

(1) Frequencies and percentages: they have been used to calculate the data concerning the characteristics of the study sample, which is represented in the first part of the questionnaire (preliminary data), as well as calculating frequencies and percentages of the responses of the research category for each item of the second part of the questionnaire.

(2) Mean: it has been used to calculate the study sample means of responses for each item of the second part of the questionnaire (dimensions of the study) to arrange paragraphs or phrases.

(3) Variance: the mean deviations squares from means or phrases.

(4) Standard Deviation: It is to identify the extent of deviation or dispersion of the study individual responses for each phrase of the main study variables and for each axis of the questionnaire axes from the mean.

(5) Pearson Correlation Coefficient: it has been used to calculate the internal consistency and reliability of the study questionnaire.

(6) Cronbach's Alpha Coefficient: it has been used to check the tool reliability.

Inferential statistical methods

(1) Chi-square test: to compare between the frequencies of the items of the questionnaire of members of the study sample.

(2) T-test: It is to find out whether there are statistically significant differences at the level of significance 0.05 in the study sample answers according to the personal (demographic) two characteristics for members of the study sample.

(3) One Way Anova: It is to find out whether there are statistically significant differences at the level of significance 0.05 in the study sample answers according to the personal (demographic) more than two characteristics for members of the study sample.

Results of Study

The following is a review of the study results regarding its different axes:

What the common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents?

To know the opinions of the sample of the study about "**Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents**" were studied, this was through the responses of the sample of the study by extracting frequencies, averages, standard deviations, and percentages of the first axis (Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents). The following table illustrates that:

Table (4)

Frequencies, averages, standard deviations, percentages and Chi-square of the first axis (Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents)

Table (4)

Frequencies, averages, standard deviations, percentages and Chi-square of the first axis (Common online early childhood education Patterns during the Corona Pandemic from the **viewpoints of Parents**

No.	Item	Always		Sometimes		Never		Mean	Standard Deviation	(%)	Item Direction	Chi-square	Sig. level	Rank
		No.	%	No.	%	No.	%							
1	Follow TV education channels.	21	8.33	95	37.7	136	53.97	1.54	0.65	51.46	low	80.88	0.01	10
2	Use electronic sources such as the Egyptian Knowledge Bank to get familiarized with the content of school books.	24	9.52	103	40.87	125	49.6	1.6	0.66	53.31	low	67.17	0.01	8
3	Receive education through educational online platforms such as Edmodo.	47	18.65	64	25.4	141	55.95	1.63	0.78	54.23	low	59.74	0.01	7
4	Conduct research collectively or individually and upload it online on specialized educational websites.	29	11.51	73	28.97	150	59.52	1.52	0.69	50.66	low	89.31	0.01	11
5	Be given homework to do and then provides it online to be marked.	80	31.75	95	37.7	77	30.56	2.01	0.79	67.06	medium	2.21	Non-sig.	2
6	Use the Video and Audio learning applications such as Zoom platform.	60	23.81	76	30.16	116	46.03	1.78	0.81	59.26	medium	19.81	0.01	6
7	Use Social media application in learning such as Facebook-WhatsApp - Twitter, etc.	71	28.17	106	42.06	75	29.76	1.98	0.76	66.14	medium	8.74	0.01	3
8	Learn through audio platforms such as the Radio and other broadcasting platforms.	16	6.35	46	18.25	190	75.4	1.31	0.58	43.65	low	206	0.01	13

9	**Receive education through electronic devices such as the Tablet and Mobile phone.**	**107**	**42.46**	**104**	**41.27**	**41**	**16.27**	**2.26**	**0.72**	**75.4**	**medium**	**33.07**	**0.01**	**1**
10	**Learn through virtual learning programs and interactive grams such as Kahoot, virtual board and the interactive wall.**	**32**	**12.7**	**81**	**32.14**	**139**	**55.16**	**1.58**	**0.71**	**52.51**	**low**	**68.31**	**0.01**	**9**
11	**Learn through educational forums.**	**18**	**7.14**	**71**	**28.17**	**163**	**64.68**	**1.42**	**0.62**	**47.49**	**low**	**128.2**	**0.01**	**12**
12	**Learn through Google applications (virtual classrooms- YouTube- Google Drive- Blogs, etc).**	**70**	**27.78**	**99**	**39.29**	**83**	**32.94**	**1.95**	**0.78**	**64.95**	**medium**	**5.02**	**Non-sig.**	**4**
13	**Learn through private lessons sessions with tutors at home.**	**80**	**31.75**	**69**	**27.38**	**103**	**40.87**	**1.91**	**0.85**	**63.62**	**medium**	**7.17**	**0.05**	**5**
	Total	**655**	**19.99**	**1082**	**33.03**	**1539**	**46.98**	**1.73**	**0.72**	**57.67**	**medium**	**59.66**	**0.01**	

*** Tabulated value of Chi- quare at the level of 0.01 = 9.210, and at the level of 0.05 = 5.991 for the degree of freedom 3**

Through the results described above, all **Chi-square** values function at the level of 0.01, as **Chi-square** calculated values are greater than the tabulated value of **Chi-square** at the level 0.01 the degree of freedom 2 shown in the bottom of the table except the items (5.12) . This confirms that the opinions of the study sample about the items of this dimension are consistent with themselves; these items mark the opinions of the study sample individuals in a particular direction. Moreover, there is no dispersion of frequencies concerning the five choice alternatives.

It is clear that the study sample agree to the first axis (Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents) as a percentage of 57.67%, and a general mean of 1.73 out of 3, which is medium as it is located in a category from 1.67 to 2.33.

The findings show that the study sample agree medium on some phrases from the first axis (Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents), which are arranged in a descending order according to the approval of the study sample in accordance with the highest values of the mean, and in accordance with

the lowest values of the standard deviation when mean values are equal, as follows

The item number (9) " Receive education through electronic devices such as the Tablet and Mobile phone. " came at the first rank in which the sample of the study agreed with it in a medium with the percentage (75.4%) , mean (2.26) and standard deviation (0.72) .

The item number (5) " Be given homework to do and then provides it online to be marked. " came at the second rank in which the sample of the study agreed with it in a medium with the percentage (67.06%), mean (2.01) and standard deviation (0.79) .

The item number (7) " Use Social media application in learning such as Facebook WhatsApp - Twitter, etc. " came at the third rank in which the sample of the study agreed with it in a medium with the percentage (66.14%) , mean (1.98) and standard deviation (0.76) .

The item number (12) " Learn through Google applications (virtual classrooms- YouTube- Google Drive- Blogs, etc). " came at the fourth rank in which the sample of the study agreed with it in a medium with the percentage (64.95%) , mean (1.95) and standard deviation (0.78) .

The item number (13) " Learn through private lessons sessions with tutors at home. " came at the fifth rank in which the sample of the study agreed with it in a medium with the percentage (63.62%) , mean (1.91) and standard deviation (0.85) .

The item number (6) " Use the Video and Audio learning applications such as Zoom platform. " came at the sixth rank in which the sample of the study agreed with it in a medium with the percentage (59.26%) , mean (1.78) and standard deviation (0.81) .

The findings show that the study sample agree low on others phrases from the first axis (Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents), which are arranged in a descending order according to the approval of the study sample in accordance with the highest values of the mean, and in accordance with the lowest values of the standard deviation when mean values are equal, as follows:

The item number (3) " Receive education through educational online platforms such as Edmodo. " Came at the seventh rank in which the sample of the study agreed with it in a low with the percentage (54.23%), mean (1.63) and standard deviation (0.78).

The item number (2) " Use electronic sources such as the Egyptian Knowledge Bank to get familiarized with the content of school books. " came at the eighth rank in which the sample of the study agreed with it in a low with the percentage (53.31%) , mean (1.6) and standard deviation (0.66) .

The item number (10) " Learn through virtual learning programs and interactive grams such as Kahoot, virtual board and the interactive wall. " came at the ninth rank in which

the sample of the study agreed with it in a low with the percentage (52.51%) , mean (1.58) and standard deviation (0.71) .
The item number (1) " Follow TV education channels. " came at the tenth rank in which the sample of the study agreed with it in a low with the percentage (51.46%) , mean (1.54) and standard deviation (0.65) .
The item number (4) " Conduct research collectively or individually and upload it online on specialized educational websites. " came at the eleventh rank in which the sample of the study agreed with it in a low with the percentage (50.66%) , mean (1.52) and standard deviation (0.69) .
The item number (11) " Learn through educational forums. " came at the Twelfth rank in which the sample of the study agreed with it in a low with the percentage (47.49%) , mean (1.42) and standard deviation (0.62).
The item number (8) " Learn through audio platforms such as the Radio and other broadcasting platforms. " came at the Thirteenth rank in which the sample of the study agreed with it in a low with the percentage (43.65%) , mean (1.31) and standard deviation (0.58).

2-What the reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns?

To know the opinions of the sample of the study about "**The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns:**" were studied, This was through the responses of the sample of the study by extracting frequencies, averages, standard deviations, and percentages of the second axis (The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns:). The following table illustrates that:

Table (5)
Frequencies, averages, standard deviations, percentages and Chi-square of the second axis (The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns)

No.	Item	Yes		No		Mean	Standard Deviation	(%)	Item Direction	Chi-square	Sig. level	Rank
		No.	%	No.	%							
1	It is easy to use and communicate directly with teachers.	1	0.4	251	99.6	0	0.06	0.4	low	248	0.01	10
2	It provides an opportunity for the children to interact and communicate directly with teachers.	140	55.56	112	44.44	0.56	0.5	55.56	medium	3.11	Non-Sig.	1
3	It provides flexibility of the time and place of learning thoughout the learning process.	108	42.86	144	57.14	0.43	0.5	42.86	medium	5.14	0.05	3
4	It helps the child to learn be punctual (fixed sessions – attendance and Absence).	106	42.06	146	57.94	0.42	0.49	42.06	medium	6.35	0.01	4
5	It facilitates it for the child to use applications and	101	40.08	151	59.92	0.4	0.49	40.08	medium	9.92	0.01	5

	devices on their own.											
6	**Recorded Educational sources (lessons) are available for children.**	**94**	**37.3**	**158**	**62.7**	**0.37**	**0.48**	**37.3**	**medium**	**16.25**	**0.01**	**6**
7	**It helps teachers to set children for assessment and evaluation.**	**87**	**34.52**	**165**	**65.48**	**0.35**	**0.48**	**34.52**	**medium**	**24.14**	**0.01**	**7**
8	**It helps organize the time of children and follow up their lessons.**	**82**	**32.54**	**170**	**67.46**	**0.33**	**0.47**	**32.54**	**medium**	**30.73**	**0.01**	**8**
9	**It gives the opportunity for providing varied activities (homework, research and videos) that suits all children.**	**73**	**28.97**	**179**	**71.03**	**0.29**	**0.45**	**28.97**	**low**	**44.59**	**0.01**	**9**
10	**It encourages children to follow up educational lessons to the end.**	**118**	**46.83**	**134**	**53.17**	**0.47**	**0.5**	**46.83**	**medium**	**1.02**	**Non-Sig.**	**2**
	Total	**910**	**36.11**	**1610**	**63.89**	**0.36**	**0.44**	**36.11**	**medium**	**38.93**	**0.01**	

*** Tabulated value of Chi- quare at the level of 0.01 = 6.635, and at the level of 0.05 = 3.841 for the degree of freedom**

Through the results described above, all **Chi-square** values function at the level of 0.01, as **Chi-square** calculated values are greater than the tabulated value of **Chi-square** at the level 0.01 the degree of freedom 2 shown in the bottom of the table. This confirms that the opinions of the study sample about the items of this dimension are consistent with themselves; these items mark the opinions of the study sample individuals in a particular direction. Moreover, there is no dispersion of frequencies concerning the five choice alternatives.

It is clear that the study sample agree to the second axis (The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns) as a percentage of 36.11%, and a general mean of 0.36 out of 1, which is Strongly agree as it is located in a category from 0.34 to 0.66.

The findings show that the study sample medium on some phrases from the second axis (The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns), which are arranged in a descending order according to the approval of the study sample in accordance with the highest values of the mean, and in accordance with the lowest values of the standard deviation when mean values are equal, as follows:

The item number (2) " It provides an opportunity for the children to interact and communicate directly with teachers. " came at the first rank in which the sample of the study agreed with it in a medium with the percentage (55.56%) , mean (0.56) and standard deviation (0.5) .

The item number (10) " It encourages children to follow up educational lessons to the end. " came at the second rank in which the sample of the study agreed with it in a medium with the percentage (46.83%) , mean (0.47) and standard deviation (0.5) .

The item number (3) " It provides flexibility of the time and place of learning thoughout the learning process. " came at the third rank in which the sample of the study agreed with it in a medium with the percentage (42.86%) , mean (0.43) and standard deviation (0.5) .

The item number (4) " It helps the child to learn be punctual (fixed sessions – attendance and Absence). " came at the fourth rank in which the sample of the study agreed with it in a medium with the percentage (42.06%) , mean (0.42) and standard deviation (0.49) .

The item number (5) " It facilitates it for the child to use applications and devices on their own. " Came at the fifth rank in which the sample of the study agreed with it in a medium with the percentage (40.08%), mean (0.4) and standard deviation (0.49).

The item number (6) " Recorded Educational sources (lessons) are available for children. " came at the sixth rank in which the sample of the study agreed with it in a medium with the percentage (37.3%) , mean (0.37) and standard deviation (0.48) .

The item number (7) " It helps teachers to set children for assessment and evaluation. " came at the seventh rank in which the sample of the study agreed with it in a medium with the percentage (34.52%) , mean (0.35) and standard deviation (0.48) .

The item number (8) " It helps organize the time of children and follow up their lessons. " came at the eighth rank in which the sample of the study agreed with it in a medium with the percentage (32.54%) , mean (0.33) and standard deviation (0.47) . These findings show also that the study sample low agree on others phrases from the second axis (The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns), They are arranged in a descending order according to the approval of the study sample in accordance with the highest values of the mean, and in accordance with the lowest values of the standard deviation when mean values are equal, as follows:

The item number (9) " It gives the opportunity for providing varied activities (homework, research and videos) that suits all children. " came at the ninth rank in which the sample of the study agreed with it in a low with the percentage (28.97%) , mean (0.29) and standard deviation (0.45) .

The item number (1) " It is easy to use and communicate directly with teachers. " came at the tenth rank in which the sample of the study agreed with it in a low with the percentage (0.4%) , mean (0) and standard deviation (0.06) .

3-What the Reasons why other education patterns are not used?

To know the opinions of the sample of the study about "**The Reasons why other education patterns are not used:**" were studied, this was through the responses of the sample of the study by extracting frequencies, averages, standard deviations, and percentages of the third axis (The Reasons why other education patterns are not used:). The following table illustrates that:

Table (6)
Frequencies, averages, standard deviations, percentages and Chi-square of the third axis (The Reasons why other education patterns are not used)

No.	Item	Yes		No		Mean	Standard Deviation	(%)	Item Direction	Chi-square	Sig. level	Rank
		No.	%	No.	%							
1	My child finds it difficult to deal with the application or the device.	89	35.32	163	64.68	0.35	0.48	35.32	medium	21.73	0.01	3
2	There are technological difficulties related to technology and the internet.	115	45.63	137	54.37	0.46	0.5	45.63	medium	1.92	Non-Sig.	1
3	It is very hard for the child to get their performance assessed and evaluated or get direct communication with teachers.	107	42.46	145	57.54	0.42	0.5	42.46	medium	5.73	0.05	2
4	There are obstacles related to economic aspects such as cost, equipments, and narrow free spaces in houses.	84	33.33	168	66.67	0.33	0.47	33.33	medium	28	0.01	5
5	There are impediments related to social aspects exemplified in parents'	87	34.52	165	65.48	0.35	0.48	34.52	medium	24.14	0.01	4

	education, number of children and the parents' business of daily activities.											
	Total	**482**	**38.25**	**778**	**61.75**	**0.38**	**0.49**	**38.25**	**medium**	**16.3**	**0.01**	

*** Tabulated value of Chi- quare at the level of 0.01 = 6.635, and at the level of 0.05 = 3.841 for the degree of freedom 1**

Through the results described above, all **Chi-square** values function at the level of 0.01, as **Chi-square** calculated values are greater than the tabulated value of **Chi-square** at the level 0.01 the degree of freedom 2 shown in the bottom of the table. This confirms that the opinions of the study sample about the items of this dimension are consistent with themselves; these items mark the opinions of the study sample individuals in a particular direction. Moreover, there is no dispersion of frequencies concerning the five choice alternatives.

It is clear that the study sample agree to the third axis (The Reasons why other education patterns are not used) as a percentage of 36.11%, and a general mean of 0.36 out of 1, which is Strongly agree as it is located in a category from 0.34 to 0.66.

The findings show that the study sample medium on some phrases from the third axis (The Reasons why other education patterns are not used), which are arranged in a descending order according to the approval of the study sample in accordance with the highest values of the mean, and in accordance with the lowest values of the standard deviation when mean values are equal, as follows:

The item number (2) " There are technological difficulties related to technology and the internet. " came at the first rank in which the sample of the study agreed with it in a medium with the percentage (45.63%) , mean (0.46) and standard deviation (0.5) .

The item number (3) " It is very hard for the child to get their performance assessed and evaluated or get direct communication with teachers. " came at the second rank in which the sample of the study agreed with it in a medium with the percentage (42.46%) , mean (0.42) and standard deviation (0.5) .

The item number (1) " My child find it difficult to deal with the application or the device. " came at the third rank in which the sample of the study agreed with it in a medium with the percentage (35.32%) , mean (0.35) and standard deviation (0.48) .

The item number (5) " There are impediments related to social aspects exemplified in parents' education, number of children and the parents' business of daily activities. " came at the fourth rank in which the sample of the study agreed with it in a medium with the percentage (34.52%) , mean (0.35) and standard deviation (0.48)

The item number (4) " There are obstacles related to economic aspects such as cost, equipments, and narrow free spaces in houses. " came at the fifth rank in which the sample of the study agreed with it in a medium with the percentage (33.33%) , mean (0.33) and standard deviation (0.47) .

The results of the differences of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic in light of the study variables. First: - Are there significant differences of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic in light of Educational Level?

The researcher used One Way ANOVA to examine the second hypothesis, the next table shows One Way ANOVA results for independent variable (the dimensions of

Parents' Form of Online Early Childhood Education during the Corona Pandemic) and the dependent variable (Educational Level).

Table (7)

Descriptives data of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic scale in light of Educational Level

Dimensions	Educational Level	N	Mean	Std. Deviation
Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents	Primary	27	23.04	6.06
	Preparatory	6	25.83	7.19
	Secondary	0	0.00	0.00
	Three-year technical Education certificate	14	24.36	3.82
	Bachelor holder	51	21.65	5.37
	Master degree and higher	129	22.05	4.88
	Other	25	24.08	6.55
	Total	252	22.49	5.35
The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns:	Primary	27	3.41	2.61
	Preparatory	6	4.17	2.64
	Secondary	0	0.00	0.00
	Three-year technical Education certificate	14	4.64	3.63
	Bachelor holder	51	3.80	2.78
	Master degree and higher	129	3.64	2.60
	Other	25	2.60	1.87
	Total	252	3.61	2.65
The Reasons why other education patterns are not used	Primary	27	1.81	1.24
	Preparatory	6	2.50	1.97
	Secondary	0	0.00	0.00
	Three-year technical Education certificate	14	1.93	1.54
	Bachelor holder	51	2.12	1.42
	Master degree and higher	129	1.86	1.22
	Other	25	1.72	1.10
	Total	252	1.91	1.29
Total	Primary	27	28.26	6.94
	Preparatory	6	32.50	9.14

Dimensions	Educational Level	N	Mean	Std. Deviation
	Secondary	0	0.00	0.00
	Three-year technical Education certificate	14	30.93	6.82
	Bachelor holder	51	27.57	6.66
	Master degree and higher	129	27.54	6.35
	Other	25	28.40	7.43
	Total	252	28.02	6.70

the last table show the descriptives data of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic scale in light of Educational Level.

Table (8)

One Way ANOVA results of the Significance of differences of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic scale in light of Educational Level

No.	Dimensions	Variance Source	Sum of Squares	df	Mean Square	F	Sig.
1	Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents	Between Groups	248.8	5	49.75	1.77	Not Sig.
		Within Groups	6922	246	28.14		
		Total	7171	251			
2	The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns:	Between Groups	45.41	5	9.08	1.3	Not Sig.
		Within Groups	1720	246	6.99		
		Total	1766	251			
3	The Reasons why other education patterns are not used	Between Groups	5.75	5	1.15	0.69	Not Sig.
		Within Groups	412.3	246	1.68		
		Total	418.1	251			
	Total	Between Groups	283.8	5	56.76	1.27	Not Sig.
		Within Groups	10982	246	44.64		
		Total	11266	251			

The findings of the previous table indicate that there are not significant statistical differences at the abstract level 0.05 in dimensions of the questionnaire on the the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic between different Educational Level.

Second: - Are there significant differences of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic in light of Number of Children variable?

The researcher used One Way ANOVA to examine the second hypothesis, the next table shows One Way ANOVA results for independent variable (the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic) and the dependent variable
(Number of Children).

Table (9)

Descriptives data of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic scale in light of Number of Children

Dimensions	Number of Children	N	Mean	Std. Deviation
Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents	Less than three children	187	22.04	4.82
	Three children to less than 6 children	63	23.43	6.23
	From 6 children to more	2	35.00	5.66
	Total	252	22.49	5.35
The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns:	Less than three children	187	3.66	2.63
	Three children to less than 6 children	63	3.38	2.68
	From 6 children to more	2	6.50	3.54
	Total	252	3.61	2.65
The Reasons why other education patterns are not used	Less than three children	187	1.91	1.24
	Three children to less than 6 children	63	1.89	1.45
	From 6 children to more	2	2.50	0.71
	Total	252	1.91	1.29
Total	Less than three children	187	27.61	6.09
	Three children to less than 6 children	63	28.70	7.82
	From 6 children to more	2	44.00	1.41
	Total	252	28.02	6.70

The last table show the descriptives data of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic scale in light of Number of Children.

Table (10)

One Way ANOVA results of the Significance of differences of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic scale in light of Number of Children

No.	Dimensions	Variance Source	Sum of Squares	df	Mean Square	F	Sig.
1	Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents	Between Groups	405.9	2	203	7.47	0.01
		Within Groups	6765	249	27.17		
		Total	7171	251			
2	The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns:	Between Groups	20.44	2	10.22	1.46	Not Sig.
		Within Groups	1745	249	7.01		
		Total	1766	251			
3	The Reasons why other education patterns are not used	Between Groups	0.73	2	0.36	0.22	Not Sig.
		Within Groups	417.4	249	1.68		
		Total	418.1	251			
	Total	Between Groups	570.4	2	285.2	6.64	0.01
		Within Groups	10696	249	42.95		
		Total	11266	251			

The findings of the previous table indicate that there are not significant statistical differences at the abstract level 0.05 in dimensions of the questionnaire on the the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic between different Number of Children except the first axis and total for (From 6 children to more).

Third: - Are there significant differences of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic in light of Do you know variable?

The researcher used T-test to examine the first hypothesis, the next table shows T-test results for independent variable (the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic) and the dependent variable (Do you know).

Table (11)

T-test results of the Significance of differences of the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic scale in light of Do you know

No.	Dimensions	Do you know	Number	Mean	Standard Deviation	T-Value	Sig.
1	Common online early childhood education Patterns during the Corona Pandemic from the viewpoints of Parents	Yes	158	22.9	5.78	1.57	Non-Sig.
		No	94	21.81	4.47		
2	The reasons behind the parents' preference of such patterns in the education of their children and the reasons behind their turning down of other patterns:	Yes	158	3.78	2.71	1.3	Non-Sig.
		No	94	3.33	2.54		
3	The Reasons why other education patterns are not used	Yes	158	1.99	1.35	1.29	Non-Sig.
		No	94	1.78	1.18		
	Total	Yes	158	28.67	7.05	2.02	Non-Sig.
		No	94	26.91	5.95		

The findings of the previous table indicate that there are not significant statistical differences at the abstract level 0.05 in dimensions of the questionnaire on the the dimensions of Parents' Form of Online Early Childhood Education during the Corona Pandemic Yes and No.

Discussion of Research Results:

Based on the results of this study, it is clear that the most common online early childhood education patterns receive education though using electronic devices (educational tablet- mobile phones) gets the first place, then patterns are placed and ordered as follows based on preference: (education using activities, homework, and electronic evaluation, (using social media platforms), (Google applications, then home-based private lessons or tutoring). The last place is represented in using audio and video platforms such as zoom. The level of the patterns was average. They provided opportunities for children and students to interact and communicate directly with teachers. The learners can also be easily evaluated or assessed using such tools. Additionally, the lessons are recorded and therefore they can be used again at any time and at any placed in learning. Moreover, children can easily use the tools alone. The tools help parents to organize the time of their children and follow up their home-based lessons. This is why such education patterns are preferred by parents over any other patterns. Some female researchers demonstrated that the preferred education pattern is due to the fact that any family has at least one mobile phone with social media platforms, and apps such as Zoom. Children, thus, can watch their teachers and interact with them revising their lessons through recorded lessons that are made available shortly after the online session. Furthermore, children can deal with tablets or mobile phones in electronic games more professionally than in education field. This makes it easy for children to use mobile phones in terms with turning the mobiles on or off. However, children encounter difficulty in using mobile phones for educational

programs. There comes the need for their families to give a helping hand following them up. This result is concurrent with the results demonstrated by the study of [31] that the children can use Google Apps effectively many times. This also goes hand in hand with the results of the study of [29], [28]demonstrating that interactive and direct programs motivate students to students to learn and improve their acquisition. On the other hand, the study of [37] differed over that stating electronic education does not motivate students and their performance is poor compared to that of traditional education.

As for the education patterns that got a lower place, they are ordered as follows: (educational platforms such as Edmodo), (Electronic sources such as Egyptian Bank of Knowledge), (Virtual Learning Programs and interactive games), (Television), (projects), (Educational Forums), and (Audio based programs, the Radio). It is difficult for children to get evaluated or assessed. They also can't communicate directly with teachers and they face difficulty in dealing with such patterns. Additionally, in some of these patterns, families find technical difficulties related to using technology and the internet. Other patterns have obstacles related to either social aspects (education level of Parents, number of their children, and the parents being busy) or economic aspects exemplified in cost, equipment, homes having narrow spaces. Accordingly, female researchers elucidated that children during early childhood learn through imitation, role models, direct interaction and follow up, which are not in harmony with some education patterns such as the Radio, Television, forums, or electronic sources. As for other patterns exemplified in educational platforms, virtual education programs and projects, neither the children nor their parents are trained on how to use such patterns in a manner that help them interact and deal. Such patterns also require a quiet place and an electronic device for every child and this poses an obstacle in case the family has more than one child in the stage of education, be this a social or economic obstacle. This result doesn't go hand in hand with that of the study of [30], which demonstrated that students have positive attitudes towards Edmodo in their courses and he recommended concerned educators to apply Edmodo in their teaching module. The study of [20] shows that there are relatively positive indicators related to the students having access to the virtual education environment and the relationship between such access and their performance. This difference of results may be resulting from the fact that the sample of this research consists of parents whose children are in the stage of early childhood and they are in need to be trained on how to deal with using technology in education.

The results of this research have demonstrated that there are no differences of a statistical significance at a rate of 0.05 according to the variable of educational level, and job titles of parents of the sample. The variable (number of their children) shows that there are statistically significant difference at a rate of 0.01 in favor of 6 children and more. Female researchers attribute this to the fact that Corona crisis demonstrated negatives that were never given attention by all societies, especially Arab societies to train on and use technology in education. Also, parents and children were not qualified to deal or use modern technologies, and there are more than on child in family in pre-university education, especially in early childhood education which poses a challenge and responsibility for the family to follow up their children.

Recommendations:

Qualify parents and teachers to use modern technologies in education from kindergarten up to university stage through providing workshops and training under supervision of specialized educators. Qualify children to employ technology in education from kindergarten up to university stage. Providing kindergartens and schools with electronic laboratories of a high quality, where children are to be trained.

REFERENCE

1. Xafis, V., *'What is Inconvenient for You is Life-saving for Me': How Health Inequities are playing out during the COVID-19 Pandemic.* Asian Bioethics Review, 2020. **12**(2): p. 223 DOI: https://doi.org/10.1007/s41649-020-00119-1.
2. Amemado, D., *COVID-19: An unexpected and unusual driver to online education.* International Higher Education, 2020. **102**: p. 12-14.
3. Mazibuko, M. and N. Dlodlo, *The Influence Of Information Heuristics In Determining The Evaluation Of Microblog Music Review Credibility.* International Journal of Social Sciences and Humanity Studies, 2020. **12**(1): p. 82-97.
4. Lavazza, A., *An Evolutionary Explanation for Change in Religious Institutions.* Journal for the Philosophy of Science, 2012. **63**(3).
5. Linehagen, F., *Conforming one's conduct to unwritten rules experiences of female military personnel in a male-dominated organization.* Res Militaris, 2018. **8**(1): p. 1-25.
6. Aragonés-Jericó, C., I. Kúster-Boluda, and N.V. López, *Value-experience transfer through sports sponsorship: Background and consequences.* Revista de Psicología del Deporte (Journal of Sport Psychology), 2020. **29**(1): p. 133-142.
7. Rykiel, Z., *Freedom of science in the semi-periphery vs pandemic.* socialspacejournal. eu, 2020: p. 31.
8. Kyurkchiev, N., *A new class of activation functions.* Some related problems and applications, Biomath, 2020. **9** DOI: https://doi.org/10.11145/j.biomath.2020.05.033.
9. Paudel, S., et al., *The coronavirus pandemic: what does the evidence show.* J Nepal Health Res Counc, 2020. **18**(1): p. 1-9 DOI: https://doi.org/10.33314/jnhrc.v18i1.2596.
10. Wayne, D.B., M. Green, and E.G. Neilson, *Medical education in the time of COVID-19.* 2020, American Association for the Advancement of Science. p. eabc7110.
11. Ali, W., *Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic.* Higher education studies, 2020. **10**(3): p. 16-25 DOI: https://doi.org/10.5539/hes.v10n3p16.
12. Cunningham, A.E., J. Zibulsky, and M.D. Callahan, *Starting small: Building preschool teacher knowledge that supports early literacy development.* Reading and Writing, 2009. **22**(4): p. 487-510 DOI: https://doi.org/10.1007/s11145-009-9164-z.
13. Çubukçu, C. and C. Aktürk, *The rise of distance education during covid-19 pandemic and the related data threats: a study about zoom.* Igd Univ Jour Soc Sci,(Ek2), 2020: p. 127-143.
14. Malla, S. and D.G. Brewin, *An economic account of innovation policy in Canada: A comparison of canola.* AgBioforum, 2020. **22**(1).
15. Mohamad, A.A. and T. Yashiro, *A rewinding model for replicons with DNA-links.* BIOMATH, 2020. **9**(1): p. 2001047 DOI: https://doi.org/10.11145/j.biomath.2020.01.047.
16. Ganiev, T., V. Karyakin, and S. Zadonsky, *MILITARY STANDOFF BETWEEN THE US AND IRAN: THE PARTIES'MILITARY POTENTIALS AND HYPOTHETICAL SCENARIOS OF CONFLICT DEVELOPMENT IN THE MIDDLE EAST.* Central Asia and the Caucasus, 2020. **21**(2): p. 50-65 DOI: https://doi.org/10.37178/ca-c.20.2.05.
17. Gudalov, N.N. and E.Y. Treshchenkov, *The Resilience of the EU Neighbours to the South and to the East: A Comparative Analysis.* Croatian International Relations Review, 2020. **26**(86): p. 6-41 DOI: https://doi.org/10.37173/cirr.26.86.1.
18. Martinez, M., *Non-agricultural diversification, mobile phone adoption and income in rural Mexico.* Cuadernos de Economía, 2020. **43**(123): p. 327-340.
19. Arici Özcan, N. and Ö. Vural, *The Mediator Role of Thriving in the Relationship between Self-Efficacy and Mindfulness in Middle-Adolescence Sample.* Educational Sciences: Theory and Practice, 2020. **20**(3): p. 56-66.
20. Alves, P., L. Miranda, and C. Morais, *The Influence of Virtual Learning Environments in Students' Performance. Universal Journal of Educational Research, 5(3), 517–527.* . 2017 DOI: https://doi.org/10.13189/ujer.2017.050325.
21. Doghonadze, N., et al., *The degree of readiness to total distance learning in the face of COVID-19-teachers' view (Case of Azerbaijan, Georgia, Iraq, Nigeria, UK and Ukraine).* Journal of Education in Black Sea Region, 2020. **5**(2): p. 2-41 DOI: https://doi.org/10.31578/jebs.v5i2.197.
22. de Oliveira, M.M.S., A.S.T. Penedo, and V.S. Pereira, *Distance education: advantages and disadvantages of the point of view of education and society.* Dialogia, 2018(29): p. 139-152 DOI: https://doi.org/10.5585/dialogia.N29.7661.

23. Khoram, A., A.D. Bazvand, and J.S. Sarhad, *Error feedback in second language speaking: Investigating the impact of modalities of error feedback on intermediate EFL students' speaking ability.* Eurasian Journal of Applied Linguistics, 2020. **6**(1): p. 63-80 DOI: https://doi.org/10.32601/ejal.710205.
24. Kocturk, N., *A Retrospective Study: According to Online News, the Victims, Perpetrators and Characteristics of Sexual Abuse at Schools.* Eurasian Journal of Educational Research, 2020. **20**(86): p. 115-134 DOI: https://doi.org/10.14689/ejer.2020.86.6.
25. Hasthavaram, S., et al., *One-pot synthesis of phthalazinyl-2-carbonitrile indole derivatives via [bmim][oh] as ionic liquid and their anti cancer evaluation and molecular modeling studies.* European Chemical Bulletin, 2020. **9**(7): p. 154-159 DOI: https://doi.org/10.17628/ecb.2020.9.154-159.
26. Hart, M.J. and D.J. Hill, *Does God Intend that Sin Occur? We Affirm.* European Journal for Philosophy of Religion, 2020. **12**(1) DOI: https://doi.org/10.24204/ejpr.v0i0.2950.
27. Joseph, Z. and Z. Tranos, *ENHANCING SUSTAINABLE LIFELONG LEARNING THROUGH COMPETENCY BASED EDUCATION AND TRAINING IN ZIMBABWE POLYTHECNICS.* International Journal of Business and Management Studies, 2020. **12**(1): p. 133-146.
28. Ahmed, M. and E. Osman, *THE EFFECTIVENESS OF USING WIZIQ VIRTUAL CLASSROOM ON STUDENTS.* ACHIEVEMENT AND MOTIVATION', ICERI2018 Proceedings. doi, 2018. **10** DOI: https://doi.org/10.21125/iceri.2018.0048.
29. Aljaser, A.M., *The effectiveness of E-Learning environment in developing academic achievement and the attitude to learn english among primary students.* Turkish Online Journal of Distance Education, 2019. **20**(2): p. 176-194 DOI: https://doi.org/10.17718/tojde.557862.
30. Alqahtani, A., *Usability Testing of Google Cloud Applications: Students' Perspective.* Journal of Technology and Science Education, 2019. **9**(3): p. 326-339 DOI: https://doi.org/10.3926/jotse.585.
31. Alqahtani, A.S., *THE USE OF EDMODO: ITS IMPACT ON LEARNING AND STUDENTS'ATTITUDES TOWARD IT.* Journal of Information Technology Education, 2019. **18** DOI: https://doi.org/10.28945/4389.
32. Kanungo, E. and P. Chattoraj, *Award of Compensation as a Mode of Victim Restoration: A Comparative Analysis of Laws in India, New Zealand and Germany.* International Journal of Criminal Justice Sciences, 2020. **15**(2): p. 325-342.
33. Makin, D. and O. Bowers, *Netflix as a Piracy Disruptor? A Cross-Sectional Test of Accessibility and AfFordability on Interest in Piracy.* International Journal of Cyber Criminology, 2020. **14**(2): p. 417-432.
34. Hotar, N., *Herd Behavior In Terms Of Social Psychology: The Example Of Crypto Asset Markets.* International Journal Of Ebusiness And Egovernment Studies, 2020. **12**(1): p. 79-90 DOI: https://doi.org/10.34111/ijebeg.202012106.
35. Mnisi, P. and T. Ramoroka, *Sustainable Community Development: A Review On The Socio-Economic Status Of Communities Practicing Ecotourism In South Africa.* International Journal Of Economics And Finance, 2020. **12**(2): p. 505-519.
36. Maryam Al Naimi, M.N.F., Rana Sobh, *Prioritization of Supply Chain Reconfiguration Variables using Balanced Score Card and Analytic Network Process.* International journal of operations and quantitative management, 2020. **26**(2): p. 95-119 DOI: https://doi.org/10.46970/2020.26.2.2.
37. Ahn, J. and A. McEachin, *Student enrollment patterns and achievement in Ohio's online charter schools.* Educational Researcher, 2017. **46**(1): p. 44-57 DOI: https://doi.org/10.3102/0013189X17692999.