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TO DETERMINE THE PERCEPTION OF E-LEARNING DURING COVID-19 PANDEMIC AMONG THE PARENTS OF SCHOOL CHILDREN IN SELECTED RESIDENTIAL AREAS AT MADURAI

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ABSTRACT

This study aimed to determine the perception of E-learning during COVID-19 pandemic among the parents of school children. To achieve the study objectives, the researchers used the descriptive survey method to collect and analyze data and interpret the results. After developing the questionnaire and ensuring its validity and reliability, it was circulated through Google form to a selected sample, consisting of 60 parents, by convenience sampling method. The study result shows that most of the parents were 42(70%) satisfied and 18(30%) were dissatisfied with the E-learning process implemented during COVID-19 pandemic. And 45(75%) of the parents perceived that E-learning cause low impact on students, 15(25%) of the parents felt it produced high impact on students. E-learning was considered to be less stressful for more parents 43(72%), however 17(28%) of the parents perceived that it could cause more stress. It is concluded that most of the parents 48(80%) had positive perception towards E-learning and 12(20%) of the parents had negative perception towards E-learning. The study findings reveal that the demographic variables like education of mother, education of father have significant association with perception of E-learning.

KEYWORDS

Perception of E-learning, COVID-19 pandemic, Parents and School children.

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INTRODUCTION

The COVID-19 pandemic which was never experienced by the people of India before. It has impacted on every aspect of individual life and economy. Citizen in India were not ready for such a pandemic and followed by restriction (lock down) throughout the nation. Its effect generated a

catastrophe was not only in economic aspects, even also the learning pattern in the country.

Education system in India depends on the traditional method of teaching. And they assumed that classroom instruction is more successful than any other method. Even though the online courses are valued, the fundamental belief was to learn in the classroom - chalk and board. COVID-19 pandemic enforced the education pattern from classroom education to online learning (E-Learning).

COVID-19 pandemic has introduced an extensive, unexpected and dramatic digital transformation in the society at large. COVID-19 has not only disturbed the business industries but has had also rigorously affected the service industry. Few managerial measures have been taken to counterweight the threat and infection spreading. These measures incorporate restrictions in travelling, obligatory quarantine for those who are traveled, prohibitions on get together, social distancing, curfew, ban on school and colleges, business restrictions, requesting individuals to work from home, self-isolations and lockdown (Goston and Wiley, 2020). Corona virus has displayed people distinctive phases of Lockdown like, complete lockdown, partial lockdown, night curfew, few hours of lockdown in daytime, etc. It has totally changed the living style of population.

Education sector has no exception. It has also enforced schools and colleges to function from home. According to Michael and Murphy, 2020¹, in light of Medical examination, there is by all a global understanding between irresistible disease specialist and officials of general health to constraint classroom instruction as a means of controlling students from the spread of the pandemic. School children's join their virtual classes from home. Government did not permit school children to attend routine classes in school, but asked to accept online classes.

Viner *et al*, (2020)² with maximum of the schools shut down in pandemic, learning has changed to virtual mode, thus placing added weight on parents all over the world. Online classes are a kind of distance learning that by and large refers to any course of study that is refined uniquely through the

Internet (Curran 2008)³. COVID-19 pandemic has made the biggest interruption of education systems in the history; influencing almost 1.6 billion students in excess 190 nations. Terminations of school and colleges have affected 94% of the world's student population.

The pandemic has affected an extra job on the guardians: that of being a supervising to their children while they go to the classes, especially at basic and primary level. Hale, Troxel and Buysse (2020)⁴ determined that parents feel unsatisfactory at helping their children focusing and joining the classes virtually.

Statement of the problem

A study to determine the perception of E-learning during COVID-19 pandemic among the parents of school children in selected residential areas at Madurai.

Objectives

To assess the level of perception of E-learning during COVID-19 pandemic among the parents of school children.

To associate the level of perception of E-learning with their selected demographic variables such as age, sex, standard, type of school etc.

Hypothesis

There is a significant association between the perception of E-learning and their selected demographic variables

Operational definitions

Perception of E-learning

It is defined, as the process of understanding the E-learning through which learning of students take place and it can be made easier and it is measured by using the questionnaire on perception of E-learning.

COVID-19 pandemic

COVID-19 pandemic, also known as the coronavirus pandemic, is an unending worldwide pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

Parents of school children

A father or mother, or any caretaker of the children who is attending a school.

Assumptions

E-learning is now incorporated as an essential part of student learning.

Most of the parents are unsatisfied with E-learning

It can cause severe psychological issues for both parents and children

Quality of education is disrupted

RESEARCH METHODOLOGY

Research methodology is designed to develop or refine methods of obtaining, organizing and analyzing data. Research methodology is the systematic way to resolve the trouble (Polit and Beck, 2008)⁵.

It deals with the research approach, research design, variables, population of the study, target and Accessible population, sampling technique, sample, sample size, inclusion and exclusion criteria selection and expansion of tool, content validity and reliability, process for data gathering and plan for data analysis.

Research approach

The selection of research approach is a basic procedure for the study. The approach selected for this study is quantitative research approach.

The present study is designed to determine the perception of E-learning among parents of school children in selected residential areas at Madurai.

Research design

In this study, descriptive research design was used.

Variables

Independent variable: Parents perception

Dependent variables: E- learning

Population

The population is the entire aggregation of cases in which a researcher is interested. The study population for this research was parents of school children.

Target population

In this current study, the target population was parents of school children at Madurai.

Accessible population

In this study, the available population was parents of school children in selected residential areas at Madurai.

Sample

A sample is a separation of the population, which is chosen to contribute in a research study. In this study samples were parents of school children who fulfill the inclusion and exclusion criteria.

SAMPLE SIZE

60 samples

Sampling techniques

In this study, convenience sampling technique was used. It is the sample being drawn from that part of the population that is researcher's accessibility and proximity.

Criteria for sample selection

Inclusion criteria

Parents of school children who were available during data collection time

Parents of school children who were willing to participate.

Parents of school children who know to read English or Tamil

Exclusion criteria

School children who do not attend online classes

Tool development and construction

The investigator prepared instrument based on the objectives of the study

Description of tool

In this study, the tool consists of 2 parts.

Part-1

Section A

It consists of demographic variables of children such as age, sex, grade level, type of school, medium of instructions, device used for E-learning, Source of Internet, and number of siblings.

Section B

It consists of demographic variables of parents such as education of father, education of mother, Occupation of father, Occupation of mother, type of family, monthly income of the family, and place of residence.

Part-2

Section A

It is a questionnaire designed to assess the perception of E-learning among parents of school children in selected residential areas. It has 3 domains such as advantages of E-learning, Impacts of E-learning on

children and Impacts of E-learning on parents. Each domain has 7 statements.

Scoring procedure

The tool consists of total 21 statements related to perception of E-learning on parents of school children. There were 5 options such as strongly disagree, disagree, somewhat agree, agree, strongly Agree. The following score was given

Strongly disagree- 1

Disagree- 2

Somewhat agree- 3

Agree-4

Strongly agree -5

Interpretations

Total score of each domain is 35 and it is interpreted as follows

Advantages of E-learning:

≤ 17 - Dissatisfied

> 17 - Satisfied

Impact of E-learning on children:

≤ 17 - Low impact

> 17 - High impact

Impact of E learning on parents:

≤ 17 - Low impact

> 17 - High impact

The total score is 105 and it is interpreted as follows

≤ 52 – Negative perception

> 52- Positive perception

Content validity of the tool

The observation checklist was developed by the investigator based on the review of the literature. The tool was given to 4 experts in the field of psychiatric nursing and paediatric nursing, for their opinion and suggestion. Based on their valuable suggestion, reframing of tools was done and validity was established.

Translational validity

Tools were given to the language experts for translation. Tools were translated from English to Tamil ($r = 0.80$) and from Tamil to English ($r = 0.82$), and it was found to be highly valid for the tool.

Reliability

Reliability is the degree to which an evaluation instrument produces steady and reliable

consequences. It also defines the constancy of the outcomes delivered in an examination, ensuring that a variety of substance measuring the diverse constructs deliver reliable scores.

Internal consistency

The reliability of the tool was established after collecting data from parents of school children. Reliability of the tool was established by using an inter-rater method, which is used to assess the internal consistency of the tool.

Inter-rater reliability

The reliability of inter-rater method was obtained by using Cronbach's alpha ($r = 0.70$).

Preliminary test was done by the draft of the questionnaire with 5 randomly selected Parents of school children. Testing was done to ascertain whether respondents were easily able to understand the questions and to identify the necessity for any amendments to the format. Testing revealed that the respondents had easily in choosing options from multiple-choice answers that were available to them.

DATA COLLECTION PROCEDURE

Questions were entered in the Google form in both languages such as English and Tamil. The link used for the data collection is

https://docs.google.com/forms/d/e/1FAIpQLSfih8mKMK1MMUitOwYbB287MKS0FBUm_K4l_82p0OnJAZ7Iw/viewform?usp=sf_link

It was felt that this was the best way to ensure that the researcher was able to gather the opinions of as many parents of school children as possible in the time available. The researcher directly went to the nearest school children's residencies, met with the parents, gave explanation regarding this questionnaire. The researcher has obtained formal consent from the parents. Researcher built good relationship with every subject and received parents WhatsApp number or e-mail Id. This link sent through WhatsApp or e-mail Id to 65 parents of school children, of these 60 were returned, representing 87% of response rate. It took about four weeks.

DATA ANALYSIS AND INTERPRETATION

After the data collection, the collected data were organized, tabulated and analyzed. The data were analyzed related to the objectives of the study by using descriptive and inferential statistics.

Table No.1 shows the Frequency and percentage distribution of the children based on their demographic variables.

Regard to age of the children, the majority of the school children 36(60%) falls between the age group of 12-14 years. Only few 4(6.66%) were belonging to 3-5 years.

Pertaining to sex of the children, majority 33(55%) of them was female and rest 27(45%) of them was male.

With respect to grade level, most of the children 36(60%) were studying 9-12th standard, whereas only 10(16.66%) were studying 1-5th and 10(16.66%) were studying 6-8th. Very few 4(6.6%) few were studying LKG and UKG.

Considering the types of school, major proportions 48(80%) of them were studying in private school whereas, 12(20%) of them were studying in public school.

Regarding medium of instructions, greatest percentage 47(78.33%) of them was studying in English medium; only few 13(21.66%) of them were studying in Tamil medium.

Regard to device used for E learning, three fourth 45(75%) of them were using android phone, whereas 5(8.33%), 7(11.66%), 3(5%) of them were using laptop, tablet and personal computer respectively.

Pertaining to source of Internet, higher proportion 45(75%) of them was using mobile data and very few such as 6(10%), and 8 (13.33%) were using Wi-Fi and monthly package respectively. It is remarkable to say that only one child 1(1.66%) was using yearly package for Internet connection.

Considering the number of siblings in the family, majority 30(50%) of them have only one sibling. 16(26.66%), 3(5%), 6 (10%) of them have 2 siblings, 3 siblings, and more than 4 siblings in their family respectively. It is surprise to say that 5 of them have no siblings.

Table No.2 shows the Frequency and percentage distribution of the parents based on their demographic variables.

In regard to education of father, most 32(53.33%) of their fathers have completed diploma/degree and very few 7(11.66%) were illiterate. And 8(13.33%), 13(21.66%) were completed primary school and higher secondary school respectively.

Pertaining to education of mother, majority 34 (56.66%) have completed diploma/ degree, whereas only 7(11.66%) were illiterate.

With respect to occupation of father, 19(31.66%) were working as a coolie and private employees. 13(21.66%), 9(15%) were working as a businessman and government employees respectively.

With reference to occupation of mother, greater percentage 29(48.33%) of their mothers were homemaker and 18(30%) of them were working as a private employees.

Regard to type of family, 41(68.33%), 19(31.66%) was belonging to nuclear family and joint family respectively.

Regard to Family monthly income, most 28(46.66%) of them were earning Rs.<20000, 13(21.66%) were earning Rs.40001 and above, 12(20%) were earning Rs.20001 to 30000 and 7(11.66%) were earning Rs.30001 to 40000.

Regard to place of residence, larger proportion 53(88.33%) of them was dwelling in urban area and rest 7(11.66%) of them was from rural area.

Assess the level of perception of E-learning among Parents of school children

Figure No.1 shows the parents perception regarding advantages of E-Learning. It depicts that (42)70% of parents were satisfied and (18)30% parents were not satisfied with E-Learning.

Figure No.2 shows the parents perception regarding impact on students. It portrays that (45)75% of the parents perceived that their children had low impact and (15)25% of the parents perceived that their children had high impact due to E-Learning.

Figure No.3 shows the perception of parents regarding impact on parents. It illustrates that (43)72% of parents had low impact and (17)28% parents had high impact regarding E-Learning.

Figure No.4 shows the parents perception regarding E-Learning. It shows that (48)80% of parents had positive perception and (12)20% parents had negative perception regarding E-Learning.

Table No.3 shows that the significant association between the level of perception of E-Learning and demographic variables such as education of mother ($\chi^2 9.65^*$) and education of father ($\chi^2 9.995^*$).

DISCUSSION

The results of the study are discussed in this chapter in connection with the objectives, the framework and hypotheses stated. The outcome is analyzed and discussed in specifications of determining the perception on E- learning among parents of school children.

The existing research was intended to determine the perception on E- learning among the parents of school children in selected residential areas at Madurai. A quantitative research approach was used for this study. The descriptive research design was used for present study. The study was performed in selected residential areas in Madurai. The parents who attained the inclusion and exclusion criteria were selected. The sample size was 60, and convenience sampling method was used to select the samples.

The first objective was to assess the level of perception of E-learning during COVID-19 pandemic among the parents of school children

The present study findings show that most of the parents were 42(70%) satisfied and 18(30%) were dissatisfied with the E learning process implemented during COVID-19 pandemic.

And 45(75%) of the parents perceived that E learning cause low impact on students, 15(25%) of the parents felt it produced high impact on students.

E learning was considered to be less stressful for more parents 43(72%), however 17(28%) of the parents perceived that it could cause more stress.

Most of the parents 48(80%) had positive perception towards E learning and 12(20%) of the parents had negative perception towards E learning.

A present study finding is supported with the findings of Seema Malik, Harish Kumar Tyagi⁶. They conducted a study on parent's perception on

online teaching in Delhi-NCR schools. The findings show that more than 81% of the parents feel connected with the online classes and are satisfied. Nearly 40% of the parents think that teaching methodology is more important that can improve the teaching and learning process, followed by personal attention (26%).

The second objective was to associate the level of perception of E-learning with their selected demographic variables such as age, sex, education of father, education of mother, occupation of father, and occupation of mother

This study illustrates that there is a significant association between the level of perception of E-Learning and demographic variables such as education of mother ($\chi^2 9.65^*$) and education of father ($\chi^2 9.995^*$)

MAJOR FINDINGS OF THE STUDY

The majority of the school children 36(60%) fall between the age group of 12-14 years. Only few 4(6.66%) were belonging to 3-5 years.

Majority 33(55%) of them was female and rest 27(45%) of them was male.

Most of the children 36(60%) were studying 9-12th standard, whereas only 10(16.66%) were studying 1-5th and 6-8th

Major proportions 48(80%) of them were studying in private school whereas, 12(20%) of them were studying in public school.

Greatest percentage 47(78.33%) of them was studying in English medium; only few 13 (21.66%) of them were studying in Tamil medium.

Three fourth 45(75%) of them were using android phone, whereas 5(8.33%), 7(11.66%), 3(5%) of them were using laptop, tablet and personal computer respectively.

Majority 30(50%) of them have only one sibling. 16(26.66%), 3(5%), 6(10%) of them have 2 siblings, 3 siblings, and more than 4 siblings in their family respectively. It is surprise to say that 5 of them have no siblings.

Most 32(53.33%) of their fathers have completed diploma/degree and very few 7(11.66%) were illiterate. And 8(13.33%), 13(21.66%) were

completed primary school and higher secondary school respectively. Most of the parents were 42(70%) satisfied and 18(30%) were dissatisfied with the E learning process implemented during COVID-19 pandemic. And 45(75%) of the parents perceived that E learning cause low impact on students, 15(25%) of the parents felt it produced high impact on students.

E learning was considered to be less stressful for more parents 43(72%), however 17(28%) of the parents perceived that it could cause more stress. It is concluded that most of the parents 48(80%) had positive perception towards E learning and 12(20%) of the parents had negative perception towards E learning.

Table No.1: Frequency and percentage distribution of the children based on their demographic variables

S.No	Variables	Frequency f	Percentage %
Age in years			
1	3-5	4	6.66
2	6-8	6	10
3	9-11	5	8.33
4	12-14	9	15
5	>15	36	60
Sex			
6	a) Male	27	45
7	b) Female	33	55
Grade level			
8	a) LGC-UKG	4	6.66
9	b) 1-5	10	16.66
10	c) 6-8	10	16.66
11	d. 9-12	36	60
Type of school			
12	a) Private	48	80
13	b) Public	12	20
Medium of instructions			
14	a) Tamil	13	21.66
15	b) English	47	78.33
Device used for E-learning			
16	a) Laptop	5	8.33
17	b) Tablet	7	11.66
18	c) Personal computer	3	5
19	d) Android phone	45	75
Source of internet			
20	(a) Wi-Fi	6	10
21	(b) Mobile data	45	75
22	(c) Monthly package	8	13.33
23	(d) Yearly package	1	1.66
No of siblings in the family			
24	(a) None	5	8.33
25	(b) 1	30	50.00
26	(c) 2	16	26.66
27	(d) 3	3	5.00
28	(e) 4 and above	6	10.00

Table No.2: Frequency and percentage distribution of the parents based on their demographic variables

S.No	Variables	Frequency	Percentage
Education of father			
1	(a) Illiterate	7	11.66
2	(b) Primary	8	13.33
3	(c) High school/ higher secondary	13	21.66
4	(d) Diploma / degree	32	53.33
Education of mother			
5	(a) Illiterate	7	11.66
6	(b) Primary	10	16.66
7	(c) High school/ higher secondary	9	15
8	(d) Diploma / degree	34	56.66
Occupation of father			
9	(a) coolie	19	31.66
10	(b) Businessman	13	21.66
11	(c) Government employee	9	15
12	(d) Private employee	19	31.66
Occupation of mother			
13	(a) Home maker	29	48.33
14	(b) Coolie	5	8.33
15	(c) Government employee	8	13.33
16	(d) Private employee	18	30.00
Type of family			
17	(a) Nuclear family	41	68.33
18	(b) Joint family	19	31.66
19	(c) Extended family	0	0
Family monthly income			
20	(a) Rs.<20000	28	46.66
21	(b)Rs.20001 to 30000	12	20
22	(c)Rs.30001 to 40000	7	11.66
23	(d)Rs.40001 and above	13	21.66
Place of residence			
24	(a) Urban	53	88.33
25	(b) Rural	7	11.66

Table No.3: Association between the level of perception of E-Learning and demographic variables

S.No	Variables	Level of perception		x ² (df)
		Positive perception (48)	Negative perception (12)	
Age				
1	3-5	3	1	3.194 (df=4)
2	6-8	5	1	
3	9-11	3	2	
4	12-14	6	3	
5	>15	31	5	
Sex				
6	Male	20	7	1.056 (df=1)
7	Female	28	5	
Education of father				
8	Illiterate	3	4	9.995* (df=3)
9	Primary	5	3	
10	High school/ higher secondary	11	2	
11	Diploma / degree	29	3	
Education of mother				
12	Illiterate	3	4	9.65* (df=3)
13	Primary	8	2	
14	High school/ higher secondary	6	3	
15	Diploma / degree	31	3	
Occupation of father				
16	Coolie	17	2	4.7143 (df=3)
17	Businessman	10	3	
18	Government employee	5	4	
19	Private employee	16	3	
Occupation of mother				
20	Home maker	24	5	2.2345 (df=3)
21	Coolie	3	2	
22	Government employee	7	1	
23	Private employee	14	4	

*p<0.05- significant association

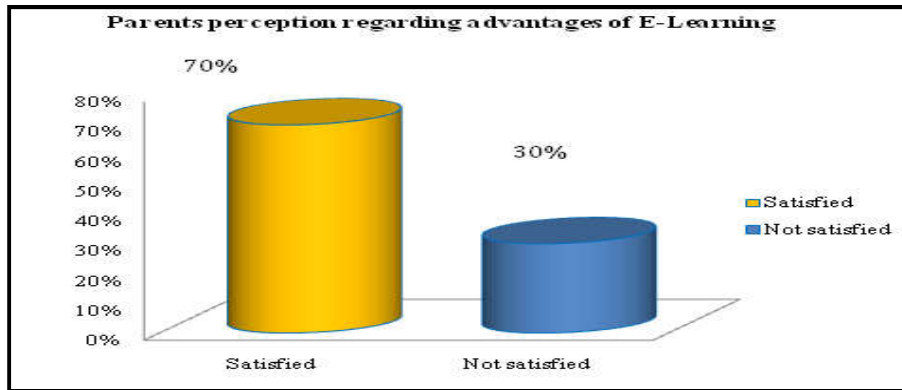


Figure No.1: The parents perception regarding advantages of E-Learning

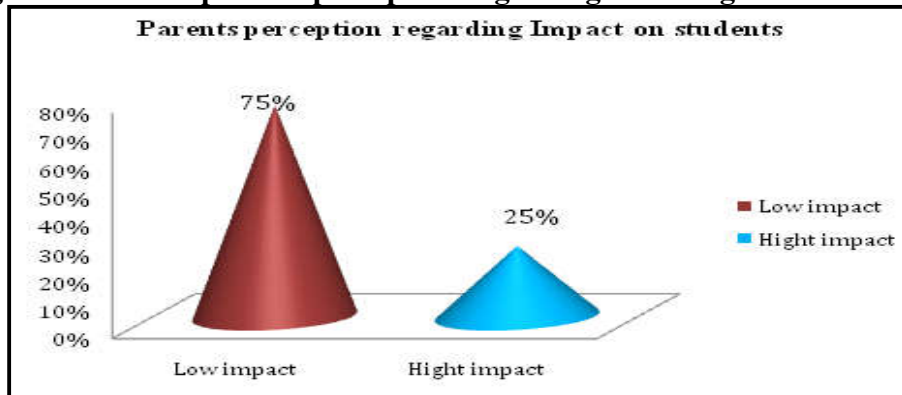


Figure No.2: The parents perception regarding impact on students

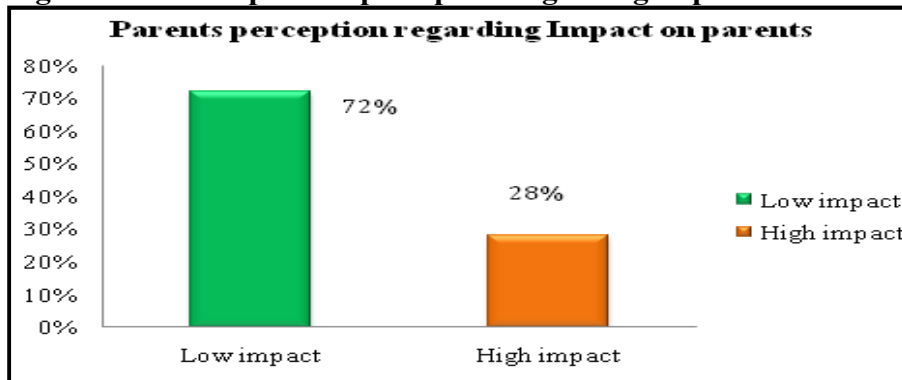


Figure No.3: The perception of parents regarding impact on parents

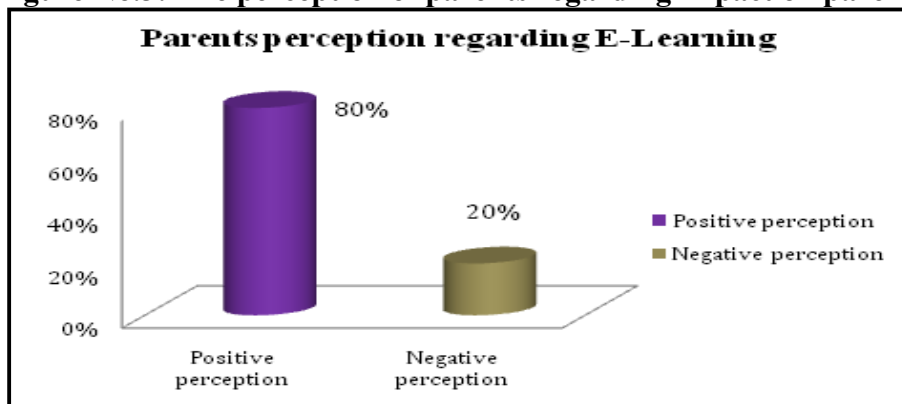


Figure No.4: The parents perception regarding E-Learning

CONCLUSION

The following conclusions were drawn from this study,

E learning proves a great encouragement for students around the world.

It provides continuous learning opportunity to all without any barrier, which will lead to improve learning quality.

Most of the parents surveyed are satisfied with the E learning

Few percentage of the parents believe that personal attention must be given to the children to improve their learning.

LIMITATIONS

The study was executed among the parents of school children from selected residential areas. So generalization should be done with caution.

RECOMMENDATION

In accordance with the existing study, the following recommendations are prepared for further studies.

Parents' orientation and training must be provided to support enabling transition to E-Learning. These steps will help to familiarize the parents with e learning, and change parent's views from the negative to the positive. Only then can E-learning grow and positively address and successfully impact the educational issues experienced in India.

More studies related to how e learning can improve the quality of students learning can be conducted specifically during pandemic period.

The government should also provide guidelines to ensure that the content of distance learning meets with educational requirements while not overburdening families and students.

Parents should communicate with their children to set boundaries on media use.

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CONFLICT OF INTEREST

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BIBLIOGRAPHY

1. Michael P. A. Murphy. COVID-19 and Emergency E-learning: Consequences of the securitization of higher education for post-pandemic pedagogy, *Contemporary Security Policy*, 41(3), 2020, 492-505.
2. Russell M. Viner, Simon Russell, Helen Croker. School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review, *The Lancet Child and Adolescent Health*, 4(5), 2020, 397-404.
3. Curran E, Murray M. Transformative learning in teacher education: Building competencies and changing dispositions, *Journal of Scholarship of Teaching and Learning*, 8(3), 2008, 103-118.
4. Lauren Hale, Wendy Troxel, Daniel J. Buysse. Sleep Health: An opportunity for public health to address health equity, *Annual Review of Public Health*, 41, 2020, 81-99.
5. Polit D F and Beck C T. Nursing research: Generating and assessing evidence for nursing practice, *Wolters Kluwer Health/Lippincott Williams and Wilkins, Philadelphia*, 8th Edition, 2008, 796.
6. Seema Malik. A study of parent's opinion on online teaching in Delhi-NCR schools, *Indian Jour of Sci and Te*, 13(42), 2020, 4351-4363.
7. Andre Hasudunganlubis, Zulkarnainlubis. Parent's perceptions on E-learning during COVID-19 pandemic in Indonesia, *Journal of Critical Reviews*, 7(18), 2020, 3599-3607.

8. Balqishusain, Muhammad Imankofia, Megawati Basri, Nurhani Mahmud. Parents' perception on implementing E-learning during new normal ERA at rural school, *Journal Ikatan Alumni PGSD Unars*, 8(2), 2020, 429-439.
9. Chayaheba and Salem Sultan. Parents' views of their children's online learning in the UAE context during the COVID-19 pandemic, *Journal of Advances in Education and Philosophy*, 4(10), 2020, 424-434.
10. Sohail Imran Khan. Online classes amid the COVID-19 pandemic: Parents perspective, *European Journal of Molecular and Clinical Medicine*, 8(2), 2021, 600-605.
11. Asma Khaleel Abdallah. Parents perception of E-learning in Abu Dhabi schools in United Arab Emirates, *International E-Journal of Advances in Social Sciences*, 4(10), 2018, 30-41.

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