

## Learners' attitude towards ODL during COVID-19 crisis with special reference to Tamil Nadu Open University

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**Abstract:** This descriptive survey intends to find out learners' attitude towards Open and Distance Learning (ODL) during COVID-19 crisis. The population was the learners studying various programmes through ODL mode under various schools of studies in Tamil Nadu Open University, Chennai during the year 2020-2021. A sample of 1081 learners was selected by voluntary response sampling method and the data were collected through online mode. A Distance Education Attitude Scale (DEAS) during COVID-19 Crisis developed and standardized by Tzivinikou, Charitaki & Kagkara (2020) was used for assessing the level of learners' attitude towards open and distance learning during COVID-19 crisis. The collected data were statistically analyzed with percentile analysis, mean, standard deviation, t-test, F-test, Tukey's multiple comparison test in the SPSS v.21. The findings show that the Tamil Nadu Open University learners' are having positive attitude towards open and distance learning during COVID-19 crisis and there is no significant difference in the attitude of learners towards open and distance learning during COVID-19 crisis in terms gender, locality, programme of study, subject of the programme and employment status.

**Keywords:** learners' attitude, open and distance learning, online learning, virtual learning, ODL, COVID-19, Tamil Nadu Open University, TNOU

### Introduction

The novel corona virus disease, COVID-19, shattered many lives globally. This highly contagious disease is still threatening the world with different strains and mutations from time to time. It has forced the governments to declare a public emergency of international and national concern as well as by adopting enormous measures to prevent the taint and limit the outbreak. It has enforced human isolation and curtailed normal human movements with severe restrictions which consequently led to complete/partial lockdowns. Government and private offices, industries and factories, malls and petty shops, hotels and restaurants, nurseries, schools, colleges and universities were all shut down.

UNESCO estimated that 1.5 billion children and youth were affected by school closures in 195 countries and in mid-April of 2020 (UNESCO, 2020). Due to closure of 1.5 million schools during COVID-19 pandemic, 320 million children were affected as on 1<sup>st</sup> December, 2020, it means that one out of five student in the world was affected due to COVID-19 (UNESCO, 2020). As per All India Survey on Higher Education 2018-2019 report, 37.4 million students have enrolled in 993 Universities, 39931 Colleges and 10725 Stand Alone Institutions in India and they were all closed during the COVID-19 curfew period (MHRD, 2019).

In this context, the plight of teachers, students, parents, government and all other stake holders of education became precarious. Education is rapidly growing worldwide in all level in the last 50 years and the educational systems have never faced a greatest challenge like the COVID-19 pandemic in the past (Daniel, 2020). Even though information and communication technologies (ICTs) has tremendously developed, education systems struggled hard to cope-up with this pandemic since it is strange in nature. The Corona virus is contagious and easily spreads from person to person in close contact with an infected person. "This virus spreads from one to another and gets into their mouth, nose or eyes, which is more likely to happen when people are in direct or close contact (less than 1 meter apart) with an infected person" (WHO, 2020). Therefore, many governments and educational institutions have changed to virtual learning and distance learning from face-to-face mode overnight without any other possibility (Tzivinikou, Charitaki & Kagkara, 2020). Thus, the way COVID-19 has changed the education system overnight from face-to-face mode of learning to distance mode of learning, is a paradigm shift.

### Growth of Open and Distance Learning

The earliest attempt made was by one Mr.Caleb Philips, a 'Short Hand' teacher who solicited students to learn through weekly mailed lessons in 1728 through an advertisement in '*Boston Gazette*' (Cury, n.d.). In

later 1800s the University of Chicago established '*Correspondence Courses*' at first in USA (AECT, 2001). In 1840 Sir Isaac Pitman taught his system of text transcription through post cards (Florida National University, 2019). In 1858 University of London threw Open Charted External programmes, which included higher education also. The first school of correspondence was opened in US in 1873. Wolsey Hall Oxford, the first distance learning college of UK was founded in 1894. The first Open University was established in UK in 1965 (Almotahida Education Group, 2020). This led the world to establish Open Universities all over. The distance education is an alternative educational system to the institutional teaching and it has been universally accepted. The distance education renders another chance for providing higher education to those who missed the opportunity of getting the same at their normal stage" (Ahamad & Aqil, 2015).

Kothari Commission (1944-1946) recommended correspondence and part-time courses for the people in large scale as India is having second largest population of the world, and the entire population is not able to attend and get educated within a short span of time. In India, Delhi University established the first School of Correspondence and Continuing Education for offering correspondence courses. Andhra Pradesh established the first Open University in 1982, which is known as Dr. B. R. Ambedkar Open University. In 1985, Indira Gandhi National Open University (IGNOU) was established to provide access to higher education for the all sections of the people without compromising the quality. After that 14 State Open Universities (SOUs) have been established and about 250 Institutions have applied to the UGC for the recognition of programmes offered through distance mode (UGC, n.d).

Distance Learning in India for higher education was initiated in the form of correspondence courses in 1962 as print version of study material was alone given to the learners. After the establishment of IGNOU at New Delhi in 1985, a significant milestone in the development of distance learning in India started taking place. The courses are being given through print version and audio-visual mode. After the invention of Web 2.0 tools and techniques in 2004, distance education has reached its hike in all respects. During 2008 the MOOCs were coined by Dave Cormier, University of Prince Edward Island, Canada and the first MOOC was introduced from the Stanford University by Sebastian Thrun and Peter Norvig in 2011 (Mora, n.d). After that various universities and institutions have been providing various courses through MOOC and online learning has become very common worldwide and 180 million learners have enrolled in the MOOCs excluding China (Shah, 2020). In India, the UGC has introduced the Open and Distance Learning Programmes and Online Programmes regulations, 2020 to regulate entire open and distance education (ODL) and online learning (OL) programmes in the country. In the National Education Policy (NEP, 2020) also, ODL and OL are given much more importance since it is the only way to increase the gross enrollment ratio (GER) in the country. Among the 15 Open Universities, Tamil Nadu Open University has been offering the highest number of UGC recognized programmes in the country.

### **Generations of Open and Distance Learning**

According to Nipper (1989) the distance education had gone through three generations namely (i) Correspondence teaching/single media, (ii) Multi-media distance education, and (iii) Tele-education. In the first generation, written and printed texts were cyclostyled by the teacher and posted to the respective learner. Here, the interaction between the teacher and learners is very limited and through postal only therefore this stage is called print-based correspondence education. In the second generation, in addition to the printed texts, multiple media like radio and televisions were utilized in order to engage the learners. Since, these media are asynchronous in nature the interaction between the teacher and the learner remained minimal. This integration of multi-media in distance education was adopted by the British Open University in 1969 at first. Since, the production and delivering of instructional materials by the specialized division of labour and education was at a large scale this generation is called as Industrial mode of distance education. In the third generation, the synchronous interaction between the teacher and learner had improved a lot through the use of information and communication technologies.

Taylor (1995, 2001) suggested fourth and fifth generations of distance education as Flexible Learning Model and Intelligent Flexible Learning Model respectively. The fourth generation of distance learning is the flexible learning i.e. the learners were given full freedom to choose what to learn, where to learn, when to learn and how to learn. The fourth generation is purely learner centered and it largely depends on the internet. The fifth generation of distance learning is the advanced level of the fourth generation which incorporated extensively the Web 2.0 tools and techniques.

### **Tamil Nadu Open University**

Tamil Nadu Open University is a prominent higher education institution, offering education under Open Distance Learning (ODL) mode. The Tamil Nadu Open University (TNOU), which was established by the Government of Tamil Nadu in 2002, plays a very vital role in providing quality higher education to people of various strata. TNOU is recognized by UGC, NCTE, RCI, and DEB. The University was granted 12B status by

the University Grants Commission (UGC) in January 2016. The University has reached considerable heights during the past 19 years of ODL in India. The university is reflecting the desire of providing higher education to every citizen at doorstep through its motto “Education for Anyone at Anytime”. It has spread its reach to every nook and corner.

Tamil Nadu Open University is the first university in the state to introduce credit based self-learning material in print in the entire state. This system has benefited a wide panorama of student community to widen their knowledge. It serves academically to women, particularly rural women, persons with disabilities (PwDs), employees, financially and socially under privileged, dropouts, learners from below poverty line segment, non-formal learners, adult learners, military service personnel, prisoners of various ages, communal, ethnic groups and those who have flair to study further.

The university has produced more than 2.12 lakh graduates. It has 34,027 learners from certificate to research level on-roll now. The University offers 43 Undergraduate Programmes, 38 Postgraduate Programmes, two Postgraduate Diploma and 14 Vocational Diploma programmes for the academic year 2020-2021. It is also providing robust student support services through its 8 regional centres and 428 study centres. Among them are 145 Learner Support Centres (LSCs), 13 Work Centres (WCs), 21 Programme Study Centres (PSCs), 240 Community Colleges (CCs) and nine Jail Centres spread over the state.

### Need for the Study

Several studies have been conducted before and after COVID-19 pandemic in finding the attitude on open and distance learning in various countries. As far as countries like India are concerned, the learners of open and distance learners are not treated as equal as the regular learners. The open and distance learning is treated as a second grade of education and the degrees of open and distance education is not treated as equal to the conventional degrees by the various institutions and people of India. They think that the learners are not involved in adequate teaching-learning process, not getting proper training, not able to acquire complete knowledge in open and distance learning as equal to the traditional or regular classrooms. Due to this condition, many of the open and distance learners suffered a lot as they were rejected in spite of having performed well in the appointments and promotions in the government and private institutions or companies only because of they got their degree though open and distance mode. Therefore, the affected people filed cases against the respective institutions or companies across the country in various occasions. Since the mobility from regular mode to open and distance mode and vice versa is very difficult, numerous learners who were not able to complete their degrees due to personal reasons like marriage, socio-economic status, family situations or any other reasons suffered a lot. Keeping this in mind, the University Grants Commission (UGC) released circulars /public notices in 2004, 2013 and 2018 stating that

*“... the Degrees/ Diplomas/ Certificates awarded for programmes conducted by the ODL institutions, recognised by DEB and UGC (erstwhile), in conformity with UGC Notification on specification of Degrees should be treated as equivalent to the corresponding awards of the Degree/Diploma/ Certificate of the traditional Universities/ institutions in the country.”*

The attitude on open and distance learning is very much important especially after COVID-19 pandemic. The COVID-19 has resulted in the closure of majority of educational institutions in the world and has made way for open and distance learning through online mode from Primary School to University level. About 90% of the countries have adopted the remote learning policies and framed the regulations for online teaching-learning process. To keep teaching and learning processes alive many universities and institutions depended solely on ‘Open and Distance Education’ through online classes. This study tries to envisage their attitude towards open and distance learning after the COVID-19 pandemic.

### Title of the Study

Learners’ attitude towards ODL during COVID-19 crisis with special reference to Tamil Nadu Open University

### Operational Definitions of the Key Terms

- **Learners’ Attitude:** The way how the learners’ think, feel and believe about something, here it refers to the perception of the learners’ about open and distance learning.
- **ODL:** Open and Distance Learning (ODL) is any two-way teaching-learning activity involving separation of teacher and learner in time and/or place through mixed mode of media which is accredited by any institution.
- **COVID-19 crisis:** It is the time of big danger, difficulty or confusion when problems must be solved or decision must be made due to the novel corona virus COVID-19 since it is highly contagious and causing severe respiratory disease and had shattered normal life.

- **Tamil Nadu Open University:** Tamil Nadu Open University is one of the State Open Universities in India which was established at Chennai in 2002 by the Act 27 of the Legislative Assembly of Tamil Nadu State Government and offers UGC recognized programmes.

### Objectives of the Study

1. To assess the level of Tamil Nadu Open University learners' attitude towards open and distance learning during COVID-19 crisis.
2. To find out whether there is any significant relationship in Tamil Nadu Open University learners' attitude towards open and distance learning during COVID-19 crisis in terms gender, locality, age, programme of study, subject of the programme and employment status.

### Methods

This descriptive survey was conducted to measure the Tamil Nadu Open University learners' attitude towards open and distance learning during COVID-19. The population was all the learners who studied various programmes such as short-term, certificate, diploma, vocational diploma, post graduate diploma, undergraduate and postgraduate programmes during COVID-19 pandemic. The Google Forms bearing 'Distance Education Attitude Scale' (DEAS) during COVID-19 was sent through bulk SMS (Short Messaging Service) to the mobile numbers of the population. 1081 learners had responded and they were treated as the sample of the study.

- Of the 1081 respondents of the survey, 19.49% (N=535) were males and 50.51% (N=546) were females.
- 66.61% (N=720) learners were from Urban area and 33.39% (N=361) learners were from rural area.
- Below 25 years old were 23.03% (N=249), 26 to 40 years old were 58.93% (N=637), 41 to 55 years old were 13.56% (N=179) and 56 and above were 1.48% (N=16)
- 04.90% (N=53) were certificate and Diploma learners, 62.63% (N=677) were UG learners, and 32.47% (N=351) were PG learners.
- 59.67% (N=645) were the learners of Arts, Science and Commerce, 11.84% (N=128) were Language learners and 28.59% (N=308) were the learners of Education.
- 71.42% (N=772) were employed and (N=309) 28.58% were unemployed.

The investigators intended to collect data from the TNOU learners including short-term certificate, and diploma learners with a minimum basic qualification. Hence all the research instruments were translated to the regional language Tamil also. Data were collected using (i) Personal Data Form and (ii) Distance Education Attitude Scale (DEAS). The personal data collection form was used to collect demographic information such as gender, residential locality, age, programme opted, subject of study and employment status of the respondents.

- Based on gender the respondents were categorized as male and female, only t-test was applied for differential analysis.
- Based on the locality of residence the respondents were categorized as urban and rural, only t-test was applied for differential analysis.
- Based on the age of the respondents they were categorized as below 25 years old, 26 to 40 years old, 41 to 55 years old and 56 and above. For differential analysis both F-test and Tukey's Multiple Comparison Test were applied
- Based on the program of study respondents were categorized as Certificate and Diplomas, Undergraduates and Postgraduates. For differential analysis df (degrees of freedom) and F-test were applied.
- Based on subject of study the respondents were categorized as Arts, Science and Commerce, Language and Education. For differential analysis df and F-test were applied.
- Based on employment status the respondents were categorized as working/employed and Non-working/unemployed, only t-test was applied for differential analysis.

Online survey method was adopted by the investigators to collect data from the learners of Tamil Nadu Open University, Chennai, who are undergoing various programmes during the academic year 2020-2021. The investigators used the Distance Education Attitude Scale (DEAS) during COVID-19 Crisis developed and standardized by Tzivinikou, Charitaki & Kagkara (2020) for assessing the level of learners' attitude towards open and distance learning during COVID-19 crisis. DEAS has a total of 10 items with four point Likert Scale. The positive items of DEAS were scored Strongly Disagree (SD)=1, Disagree (D)=2, Agree (A)=3 and Strongly Agree (SA)=4 and the negative items (4&5) were scored vice versa. Since the internal consistency (Cronbach's alpha) of the DEAS is 0.764 and it was validated with construct validity method (exploratory and confirmatory factor analysis) by the authors the tool was valid and reliable.

## Procedures

A 10 item questionnaire was provided in the Google forms having two sections pertaining to a brief description about the study and requisition for personal data with the assurance of confidentiality of the responses provided and the minimum time required for completion of the questionnaire. In the personal data section of the Google form all the items were marked specifically as required in red to avoid noncompliance of the same. The second section contains the DEAS in English and in Tamil. The students were requested to open the link and undertake the survey and submit the same. There was no compulsion either directly or indirectly as the survey was purely voluntary. The survey was conducted between 07<sup>th</sup> February, 2021 IST 14.50 (GMT+5.30) and 17<sup>th</sup> February, 2021 IST 09.38 (GMT+5.30). Responses were received between the period noted here and a total of 1081 were received. The data collected through the survey was marked and exported as a spread sheet in the Google Forms for statistical analysis in accordance with prefixed norms and conditions.

## Data Analysis and Findings

### *Attitude towards Open and Distance Learning*

Item Statements	Mean	Std. Deviation	Percentage
My participation in distance education programme during COVID-19 crisis is satisfactory	3.25	.690	81.12
I cope with difficulties in distance education rather than traditional education	3.01	.621	75.25
I consider distance education equally effective to traditional education.	3.05	.705	50.76
I cope with difficulties in using the digital material	2.03	.707	52.28
I cope with difficulties during the teleconference process	2.09	.640	76.27
I am able to interact with the instructor during the teleconference	2.88	.756	72.11
I consider that effective learning outcomes can be achieved equally to distance education and traditional education	2.98	.695	74.00
I have the appropriate skill to participate in distance education	3.30	.597	82.49
I have the same level of motivation to participate in distance education compared to traditional education	3.18	.646	79.60
I want to participate in distance learning programme in future	3.24	.669	81.03
<b>Attitude towards Open and Distance Learning</b>	<b>29.01</b>	<b>3.319</b>	<b>72.49</b>

The mean of the DEAS is 29.01, the standard deviation is 3.319, and the percentage is 72.49. Out of 10 items in the DEAS, the maximum (seven) numbers of item in the DEAS is above the total percentage score i.e. 72.49. Therefore, it is inferred that the learners' attitude towards open and distance learning is positive.

**Table 1**

*Difference in the attitude of learners towards open and distance learning in terms of gender*

Variable	Gender	Count	Mean	Std. Deviation	t-value	p-value
Learners Attitude towards Open and Distance Learning	Female	546	28.87	3.349	1.423	0.921
	Male	535	29.16	3.285		

Since the p-value is greater than alpha value ( $p > 0.05$ ) in the above Table 1, learners' attitude towards open and distance learning is not statistically significant in terms of gender and null hypothesis is accepted.

**Table 2**

*Difference in the attitude of learners towards open and distance learning in terms of locality*

Variable	Locality	Count	Mean	Std. Deviation	t-value	p-value
Learners Attitude towards Open and Distance Learning	Urban	720	29.06	3.450	0.583	0.134
	Rural	361	28.93	3.045		

Since the p-value is greater than alpha value ( $p > 0.05$ ) in the above Table 2, learners attitude towards open and distance learning is not statistically significant in terms of their living place and null hypothesis is accepted.

**Table 3**

*Difference in the attitude of learners towards open and distance learning in terms of age*

Variable	Age	Sum of Squares	df	Mean Square	F-value	p-value
Learners Attitude towards Open and Distance Learning	Between Groups	178.771	3	59.590	5.472	.001
	Within Groups	11716.992	1078	10.889		
	Total	11895.763	1081			

Since the p-value is lesser than alpha value ( $p < 0.05$ ) in the above Table 3, learners attitude towards open and distance learning is statistically significant in terms of their age and null hypothesis is rejected.

**Table 3a**

*Details of Tukey's Multiple Comparison Test in the difference in the attitude of learners towards open and distance learning in terms of age*

Variable	Age	Count	Subset for alpha = 0.05	
			1	2
Learners Attitude towards Open and Distance Learning	56 and above	16	27.94	
	Below 25	249	28.45	28.45
	26-40	637	29.08	29.08
	41-55	179		29.68
	p-value		.274	.214

It is inferred from the Tukey's Multiple Comparison Test in Table 3a that two homogeneous groups can be formed among the Students age groups in terms of their attitude towards distance learning. There is a significant difference between the age group of 41-55 and 56 and above.

**Table 4**

*Difference in the attitude of learners towards open and distance learning in terms of programme of study*

Variable	Programme of Study	Sum of Squares	df	Mean Square	F-value	p-value
Learners Attitude towards Open and Distance Learning	Between Groups	.757	2	.379	.034	.966
	Within Groups	11896.034	1079	11.035		
	Total	11896.792	1081			

Since the p-value is greater than alpha value ( $p > 0.05$ ) in the above Table 4, learners attitude towards open and distance learning is not statistically significant in terms of their programme of study and null hypothesis is accepted.

**Table 5**

*Difference in the attitude of learners towards open and distance learning in terms of subject of programme*

Variable	Subject of Programme	Sum of Squares	df	Mean Square	F-value	p-value
Learners Attitude towards Open and Distance Learning	Between Groups	52.482	3	17.494	1.591	.190
	Within Groups	11844.310	1078	10.998		
	Total	11896.792	1081			

Since the p-value is greater than alpha value ( $p > 0.05$ ) in the above Table 5, learners attitude towards open and distance learning is not statistically significant in terms of their subject of programme and null hypothesis is accepted.

**Table 6**

*Difference in the attitude of learners towards open and distance learning in terms of employment status*

Variable	Employment Status	Count	Mean	Std. Deviation	t-value	p-value
Learners Attitude towards Open and Distance Learning	Working	772	29.03	3.419	.330	0.268
	Not-Working	309	28.96	3.061		



Since the p-value is greater than alpha value ( $p > 0.05$ ) in the above Table 6, learners attitude towards open and distance learning is not statistically significant in terms of their employment status and null hypothesis is accepted.

### **Discussion**

Many researchers conducted studies to find out the attitude on open and distance learning before COVID-19 and found that the attitude on open and distance learning is favourable, positive and above average (Alshaikeh & Singh, 2018; Peytcheva-Forsyth, Yovkova & Aleksieva, 2018; Zabadi & Al-Alawi, 2016; Adewole-Odeshi, 2014; Kar, Saha & Mondal, 2014; Saroha, 2014; Stanley, 2014; Mehra & Omidian, 2011; Young, 2011; Adeoye & Salawu, 2010; Isik, Karakis, & Güler, 2010; Ojo & Olakulehin, 2006). After COVID-19 pandemic few researchers also conducted studies on the learners attitude towards open and distance learning / online learning and found negative and unfavourable attitude on online learning during COVID-19 (Khan, Vivek, Nabi, Khojah & Tahir, 2021) and few others found positive and favourable attitude towards online learning during COVID-19 (Alhumaid, Ali, Waheed, Zahid, Habes, 2020; Abbasi, Ayoob, Malik, & Memon, 2020). From these related studies it is accepted that the attitude towards open and distance learning has not changed due to COVID-19 and it has been positive in nature before and after COVID-19.

This study is conducted among the learners of Tamil Nadu Open University after the completion of first wave of COVID-19 and their attitude is positive. This may be due to the fact that students who are opting to study ODL programmes are already looking forward to virtual mode of learning. Moreover, during this COVID-19 pandemic period, Tamil Nadu Open University has taken various necessary actions for the continuous and comprehensive learning of its learners. Every institute is struggling to maintain the scholastic pursuit without a gap and to keep the flame of knowledge burning. The Tamil Nadu Open University has taken on the challenge of COVID-19 pandemic crisis by providing numerous digital services to its students throughout this period. It has introduced online admission, online examinations, online assignment submission, online fee payment, online re-registration, online classes, online students' grievance redressal, online certificate verification, online quiz programs, online national and international webinars, online meetings, online feedback and surveys, etc.

Even though all the colleges and Universities were closed during the pandemic period, Tamil Nadu Open University has been functioning vigorously during the period since it provides various online services to its stakeholders in various aspects. Centre for University Informatics had been created (i) to provide better online services to its stakeholders; (ii) to expand the network and internet resources; (iii) to establish and maintain e-governance and m-governance; and (iv) to enhance information security to all the stakeholders during the year 2019. The Electronic Media Production Centre has conducted various online classes to the students of TNOU. Students Registration and Evaluation Division had conducted online examinations and established the online certificate verification portal & online fee collection portal, Students Support Services Division had established the online submission portal, students grievance redressal cell had established the online students redressal mechanism, many schools and divisions had conducted online webinar and quizzes during the period. As online learning is new to the learners and new to the digital service providers on a large scale of this magnitude, it is significant to study the impact of this aspect of distance learning. Further, open distance learning could be more fun, informative and productive in all spheres of learning. Digital platforms are the unavoidable and undeniable educational tool of the future.

It is inferred from the differential analysis that there is no significant relationship in the learners' attitude towards open and distance learning during COVID-19 crisis in terms of gender, locality, programme of study, subject of the programme and employment status. It is also stated that there is a significant relationship in the learners' attitude towards open and distance learning during COVID-19 crisis in terms of age. It shows that the learners' age group of 41 to 55 are having most favourable attitude towards open and distance learning. This finding confirms the findings of Mahmoud (2016) and Halder (2012) and contradicts the finding of Basantia (2021).

This study also shows that the learners had actively participated in the open and distance learning programmes since they had no other go for further learning during COVID-19 and had the appropriate skill for participating in the open and distance learning programmes from time to time. Moreover, the learners had the same level of motivation to participate in open and distance learning programme as compared to the traditional learning. During COVID-19 many learners gained the knowledge about the usage of various online tools for learning and also became aware of many technologies to deal with its difficulties. They believe that they can easily interact with instructor and they can produce fruitful outcome from open and distance learning.

### **Conclusion**

The COVID-19 pandemic crisis is carving an indelible alteration in the field of education. The entire education system has been standstill and shifted to virtual mode in one night from face-to-face mode. The altered education system has affected the attitude of the learners either favourably or unfavourably. This study was conducted to find out the attitude of learners towards open and distance learning which was conducted

through virtual mode with special reference to Tamil Nadu Open University. The attitude of Tamil Nadu Open University learners' towards open and distance learning is positive and there is no significant difference in the Tamil Nadu Open University learners' attitude towards open and distance learning during COVID-19 crisis in terms of gender, locality, programme of study, subject of the programme and employment status except their age. This study gives the clear picture about the attitude of learners towards open and distance learning. Since most of the educational institutions have been closed due to the COVID-19 for the past one year, the learners are habituated with the open and distance learning. Therefore, the open and distance learning will be the common and widely accepted among the learners community. There is no absolute guarantee that the world will be spared of such mitigations in future. Open and distance learning is the only way to cope up with any unusual situations and save the education system.

#### **Conflict of Interest**

There is no conflict of interest.

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