RESEARCH ARTICLE

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Attitude of Undergraduate Students of Agriculture towards Online Mode of Learning

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ABSTRACT

The COVID-19 pandemic had prompted higher institutions around the globe to relocate traditional classes to online classes. Due to the pandemic, students were compelled to use online platforms that the university provided, such as Microsoft Teams, Google Meet and Zoom, to resume their studies. This study aims to evaluate the attitude of undergraduate students of agriculture in using these new platforms for online mode of learning so that in future, academicians and the Government can design online learning platforms that will enhance the learning of students . The results of this study show that distance learning is still in the development stage, and although traditional classrooms appeared to be indispensable, the positive attitudes and willingness of the majority of students to engage in distance learning classes in the post-COVID19 pandemic indicate that there is an immense potential future for e-learning platforms in higher education institutions.

Keywords: *COVID-19 Pandemic; Online platforms; Learning; Attitude scale*

INTRODUCTION

Agriculture being the back bone of India has numerous opportunities for students who pursue it as a profession. The professional education provided is the base for students to build their future. The mode of knowledge acquisition and learning of skills were transferred from the faculty to the students, primarily by means of traditional medium, which is the classroom method of education. The COVID 19 pandemic however, has put every academic institution in dilemma, thereby challenging the whole traditional mode of learning.

ICT for the students of undergraduate students of agriculture , until the COVID 19 was limited to emailing and looking up for satisfying the needs of assignments and projects. The *'Digital India'* dream envisaged by the Prime Minister of India, took a faster turn through the meaningful adoption of ICT by the academic institutions, when the world stood still evaluating the next best option (Mohanta et al., 2017)

The sudden shift from the face to face to distant learning mode left many of the students unprepared for the unfamiliar mode of education, chosen and suggested by the Government and Educational Institutes.

According to the United Nations Educational, Scientific and Cultural Organization the pandemic had interrupted the learning of more than one billion students in 129 countries

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worldwide (Sundaresan et al., 2020). The pandemic directly influenced the mental status of the students as they were prohibited in getting involved in any social activity outside their home. This has in turn aggravated the stress level and the student's performance. Moreover, the students had to attend classes at a stretch through the online medium. Hence, the present study aims to throw light on the attitude of students towards online mode of learning so that the appropriate measures can be taken while designing a curriculum integrated with technology for the future.

METHODOLOGY

The current study was conducted using an *ex-post facto* research design. It was carried out during 2020-21 academic year among 220 undergraduate students in Agriculture belonging to Karunya Institute of Technology and Sciences, a private institution in Coimbatore. With the help of an online interview schedule generated through Google forms, two hundred and twenty students were interviewed using a pre-tested structured interview schedule developed to identify and prioritize the problems faced by students for attending online classes. Age, gender, location, state, experience, device, internet source, and attitude toward online classes were all collected. The data collected were analysed using statistical tools such as frequency, percentage, mean and standard deviation. The chronological age was operationalized as the actual age of the respondent during the time of investigation. The number of years obtained by the respondent is rounded to the next whole number in the study. The total responses were then divided to three group based on the mean and standard deviation. The formula mean ± SD was used to categorize the variable into three category. The attitude of students towards the online classes was explored with the help of an attitude scale developed by Jyothi and Vijayabhinandhana (2021) with slight modifications.

FINDINGS AND DISCUSSION

Profile of the Respondents

The profile of the respondents was assessed and the results are presented in Table 1.

Table 1. Profile Characteristics of the Respondents

Category	Frequency	Percentage	
Age			
17-18 Years	120	54.5	Range =17-21 Mean =18.40 SD=0.90
18-19 Years	95	43.2	
20-22 Years	5	2.3	
Gender			
Male	108	49.1	Range =1-2 SD =0.50
Female	112	50.9	
Place			

Category	Frequency	Percentage	
Village	96	43.6	Range = 1-4 Mean = 2.00 SD= 1.12
Block/Taluka	69	31.4	
District Headquarters	13	5.9	
State Capital/City	42	19.1	
State			
Andhra Pradesh	8	3.6	Range =1-5 Mean = 4.5 SD= 0.98
Karnataka	2	0.9	
Kerala	25	11.4	
Puducherry	5	2.3	
Tamil Nadu	180	81.8	
Experience			
Low (1-2 Years)	109	50	Range =1-10 Mean =3.39 SD=2.30
Medium (3 Years)	27	12	
High (3-10 Year)	84	38	
Device			
Computer	8	3.6	Range =1-6 Mean =2.23 SD=1.74
Laptop	127	57.7	
Smart Phone	83	37.7	
Tab/ipad	2	0.9	
Source of Internet			
Hotspot from Smart Phone	67	30.5	Range =1-3 Mean =3.39 SD=2.30
Mobile network	103	46.8	
WiFi Router	50	22.7	
Attitude towards online classes			
Low (<103)	82	37.3	Range =20-244 Mean =130 SD=64.00
Medium (104-157)	53	24.1	
High (>158)	85	38.6	

Table 1 presents the profile characteristics of the students. Majority of the students belonged to the age category of 17-18 years (54.50%). Among the respondents, female respondents (50.9%) were more than the male respondents (49.1%). Seventy-five percentage of the respondents hailed from Villages and Block followed by State Capital and District Head quarter. More than half of the students were native to Tamil Nadu followed by Kerala, Andra Pradesh and Puducherry. Among the respondents, majority of the students (50%) reported that they had a low previous experience in using ICT tools, where as 38% of respondents stated that they have a high experience in using ICT tools followed by respondents with medium level of experience (12%) that is 3 years. Laptop was the ICT tool utilized by more than half of the students for learning, followed by smart phones. Respondents using Computers and iPad were less than 5%. The source of internet connection for attending the online classes was found to be mobile network (46.8%), followed by hotspot from mobile (30.5%) and Wi-Fi router (22.7%).

Overall Attitude of Students towards Online Classes

The overall attitude of undergraduate students of agriculture was ascertained and is presented in Table 2.

Table 2: Overall Attitude of the Students towards Online Classes (n=220)

Category	Score	Frequency	Per cent
Less favourable	22-103	82	37.3
Favourable	104-157	53	24.1
Most favourable	158-224	85	38.6
		220	100

The attitude of students towards the online classes was explored with the help of an attitude scale developed by Jyothi and Vijayabhinandhana (2021). The scale consisted of 20 statements with 11 positive statements and 9 negative statements. The scale was administered to the 220 respondents. The results showed that 62.7% of the students had favourable to most favourable attitude towards online classes and only 37.3% students were less favourable towards the online classes. The favourable attitude of the students could be attributed towards their positive viewpoint and acceptance of the situation they were in. Moreover, the availability of the ICT tools and the internet connectivity could also have enhanced their positive attitude. A study conducted by Javier (2020) on the attitude towards online learning revealed that a general optimistic outlook and a reasonable level of technical competency influence the positive attitude. Some of the studies also point out that student characteristics along with the self-efficacy of internet, the experience in using computer, and speed of internet could be regarded as important factors influencing online learning in developing countries (Bhuasiri, et.al.2012).

Association of Attitude Scores of Students with Predictor Variables

The association of the attitude of the students with their personal characteristics is presented in Table 3.

Table 3: Correlation Coefficient of Attitude of Graduates with Six Predictor Variables.

Variables	Coefficient of correlation (r) n=220
Age:	-0.567**
Gender	-0.104
Place	-0.092

Variables	Coefficient of correlation (r) n=220
Device	0.464**
Experience in ICTs	-0.163*
Online support from institution	0.016
** *Significant at 1% level* * *Significant at 5% level*	

The correlation between the attitude and independent variables showed that type of devices used had a positive correlation whereas age and experience in using ICT were negatively correlated. The positive correlation of devices towards the attitude can be attributed towards the experiences of students in using the devices for various personal and professional needs. A substantial factor of attitudes toward e-learning is students' skills in technologies (Rhema et al.,2014). Thakkar and Joshi (2017), had reported that the students having access to technology were more favourable towards E-learning. A study by Ismaili (2021) had also shown that the technological availability and accessibility had positive correlation towards the attitude of students towards e-learning. The independent variables age and experience in ICT were negatively correlated with the attitude towards e-learning and this can be attributed to the anxiety of students on how the novel medium of teaching is going to reflect or affect their future.

CONCLUSION

The recent COVID-19 pandemic has showed us that online mode of learning is the need of the hour. As the frequency of occurrence of natural disasters and pandemic is becoming higher, incorporation of online mode of learning in the regular agricultural curriculum can bring in a positive attitude among the undergraduate students. From the findings of the study, it could be inferred that before introducing it into the regular curriculum, there is a need to ensure that all the students undergoing this mode of learning need to be equipped with devices such as laptops and assured of internet accessibility. As longer hours of learning through online mode aggravates boredom, learning should be made interactive through sessions like quiz, group discussion games and the like. The negative attitude of the students could be changed by projecting positive sides of the online learning . The faculty and the institutional authorities have a major role to play in effecting this change in attitude.

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