E-readiness for Online Education among Students of Acharya N.G. Ranga Agricultural University, Andhra Pradesh during COVID -19

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ABSTRACT

All the academic institutions were closed during pandemic period across the world. Such closure enhanced the development of the online learning environments. Face-to-face mode of learning was changed by online/virtual mode of learning during pandemic. The situation offered a need for greater addition of technology as a platform and environment to educate students. Online teaching educated the students during the pandemic period. The present study was taken up to know the e-readiness of the students for online learning. A sample size of one fifty students from five colleges under faculty of Agricultural Engineering & Technology and Community Science, Acharya N.G. Ranga Agricultural University were selected for the study. Data was collected by using structured schedule developed for the study. Simple random sampling method was used for selection of the respondents. The result of the study revealed that majority of the students (94.00%) had knowledge on usage of learning apps and possessed smartphone (98.66%). Fifty per cent of the students had medium level of e-readiness towards online learning (50.66%).The findings also revealed that the urban students had high e-readiness as compared to rural students for online learning.

Keywords: *Online learning, e-readiness, students, COVID-19*

The COVID-19 pandemic had made a world-wide consciousness that the present way of lifestyle does not work. New changes emerged in all the areas and one among those is educational sector. All over the world educational institutes/universities remain closed during pandemic period. The sudden changeover in teaching/learning method has raised new challenges and opportunities.

The online learning covers a wide set of application and processes including computer based earning, web-based learning virtual classroom and digital collaboration (Hambrecht 2007). e-readiness is becoming widely accepted as requisite for online learning and web based-learning which involves the use of all the electronic medium like e-mail, e-journal, e-book and so on. In other words we need e-readiness in general to improve and to maintain the quality in online education system.

e-readiness is referred as the use of internet technology to deliver a board array of solution that enhances knowledge and performance of both teachers and students (Rosenberg, 2001). "e-readiness is defined as the degree in which a community is qualified to participate in the digital world". Five key factors assess the e-readiness are Information technology (IT), Infrastructure facilities, Human resources, policies and regulations, environment factors i.e economic, political and cultural (Budhiraja and Sachdeva 2002).

e-readiness require few electronic devices such as computer, laptop, tablet or smart phone, equipment like web camera, ear phones, mike, speakers or a smart classroom, video-conferencing software and a stable internet connectivity. Earlier online technology and gadgets were used for only entertainment purposes, but now they are used even for productive purposes.

Previously, very few people used to learn from online lectures, but now everything is digitalized, where students started meeting online on digital platforms for educational purpose. The educational institutions charted out the time tables for synchronous online education where in the students come online at a predetermined time and date in a video conference application. In response to significant demand, many online learning platforms are offering free and paid access to their services. The educational institutions around the globe are utilizing these digital platforms to educate their students. Hence, a study was conducted with an objective to identify the e-readiness for online education among students during COVID-19.

MATERIAL AND METHODS

The present study was conducted in four colleges under faculty of Agricultural Engineering & Technology and one college under faculty of Community Science, Acharya N.G. Ranga Agricultural University. Thirty students from each college were selected for the study thus making a total sample of 150 students from five colleges. Simple random sampling method was used for selection of the respondents. Exploratory research design was adopted for the study in order to study the e-readiness of the students for online learning. A structured schedule developed was used for the study. The data was analysed through frequency, percentage and t-test respectively.

RESULTS AND DISCUSSION
Table 1. Demographic profile of the students (n=150)

The demographic profile of the students classified on the basis of their age, gender, education and location.

S.No	Variable	Frequency	Percentage
1	Age		
	15 to 19 years	59	39.33
	20 to 25 years	79	52.66
	26 to 30 years	12	8
2	Gender		
	Female	109	72.66
	Male	41	27.33
3	Education		
	2nd years	75	50
	3rd years	75	50
4	Location		
	Urban	60	40
	Rural	90	60

The data represented in table 1 shows that fifty per cent of the students belong to 20 to 25 years of age group(52.66%) followed by 15 to 19 years of age group (39.33%) and 26 to 30 years of age group(8.00%). More than fifty per cent of the respondents (72.66%) were female and male respondents were (27.33%). Education was distributed as per their pursuing year of the study and majority of the students (75.00%) belong to 2nd year of UG and (75.00%) of the respondents were 3rd year of UG. More than fifty per cent of the students (60.00%) belong to rural background and (40.00%) of the students belong to urban background.

Digital literacy refers ability to use a range of technologies tools and other media on various digital platforms. The results represented in table 2 shows that majority of the students had knowledge on usage of learning apps (94.00%), usage of digital devices (91.00%), submission of online assignment (86.66%).

More than fifty per cent of the students had knowledge on usage options of online learning platforms (63.33%) and resolving the technical problems (57.33%). These results may be most of the students had knowledge on learning apps like Zoom, Google meet and etc. They were aware new technologies and the skill of the students increasing towards the digital learning apps and ICT tools. These findings were smiliar with Shopova (2015), Jyothi and Vijayabhinandana (2020).

Table 2. Distribution of respondents based on their digital literacy (n=150)

S.No	Digital literacy	Frequency	Percentage
1	Usage of digital devices	137	91.33
2	Usage of learning apps	141	94
3	Submission of online assignment	130	86.66
4	Resolving the technical problems	86	57.33
5	Usage of options of online learning platforms	95	63.33

Table 3. Distribution of respondents based on their possession of electronic devices (n=150)

S.No	Electronic Devices	Frequency	Percentage
1	Laptop	65	43.33
2	Smartphone	148	98.66
3	Tablets	35	23.33
4	Personal computer	35	23.33

Possession of electronic devices was studied in terms of laptop, smartphone, tablets, office computer and personal computer. The result represented in table 3 shows that majority of the students possessed smartphone (98.66%).Less than fifty per cent of the students possessed the laptop (43.33%) and an equal proportion of (23.33 %) each possessed the tablets and personal computer. It indicated that smartphone was used by most of the students as it was user friendly and economically cheaper to buy so most of the students preferred smart phones. The findings were similar with that found by Ramya *et al.* (2021).

Table 4. e-readiness of students towards the online learning (n=150)

S.No	Dependent variable	High f (%)	Medium f (%)	Poor f (%)
1	e-readiness of students	71 (47.33)	76 (50.66)	3 (2.00)

Figures in parenthesis indicate percentage

The result represented in table 4 shows that Fifty per cent of the students had medium level of e-readiness followed by (47.33%) high level and (2.00%) poor level of e-readiness .The findings shows that fifty per cent of the students had medium level of e-readiness towards the online learning. Because they had knowledge on ICT tools, video conference applications, usage of learning app and possessed their own electronic gadgets during online classes.

Table 5. Difference between rural and urban students based on e-readiness (n=150)

S.No	Dependent variable	Area	Mean ± S.D	t-value
1	e-readiness	Urban	2.500±0.55	1.303[NS]
		Rural	2.38 ±0.52	

*Non- significant at 0.01 level

The result represented in table 5 shows that there was a non-significant difference between the urban and rural students on e-readiness for online learning .However urban students scored better than the rural counterpart. The results may be nowadays the students had good exposure towards usage of electronic gadgets, participants in online class, workshops, seminars, competition, utilising ICT tools and technologies for gathering information and attending online classes. However there was no much difference between rural and urban students. This might due to improvement and development of rural areas in terms of internet connectivity, possession of smartphone in each home, awareness regarding handling electronic gadgets and innovative technologies. These findings were smiliar with konwar (2017) who stated that both rural and urban students possess high attitude towards e-learning but urban students have slightly higher attitude towards e-learning than rural students.

CONCLUSION

During COVID-19 pandemic, the educational institution suddenly changed the teaching mode from traditional mode of teaching offline to online learning. Online teaching educated the students during the pandemic period. Most of the students had knowledge on the ICT tools and digital learning platforms and possessed their own electronic gadgets for online learning. Most of the respondents had medium level of e-readiness towards online learning. Urban students had better knowledge and skill compared to rural students however there was non-significant difference between rural and urban in the usage of e-learning tools. Hence the study recommends suitable learning strategies for effective online education.

LITERATURE CITED

Budhiraja R and Sachdeva S 2002 E-readiness assessment (India). On-line: http://unpan1. un. Org/intradoc/groups/public/documents/ APCITY/UNPAN014673. pdf.

Hambrecht W R 2007 Ontology-driven e-learning system based on roles and activities for Thai learning environment. Interdisciplinary Journal of E-Learning and Learning Objects, 3(1), 1-17.

Jyothi V and Vijayabhinandana B 2020 Perception of Students about Online Education. *The Andhra Agricultural journal.* 67 (Spl. II): 142-143.

Konwar I H 2017 A study on attitude of college students towards e-learning with special reference to North Lakhimpur of Lakhimpur District, Assam. International Journal of Information, 4(1), 1-9.

Ramya C H, Jyothi V, Vijayabhinandana B and Prasad P V N 2021 Students attitude towards online learning in Acharya N.G.Ranga Agricultural university. Indian Research Journal of Extension Education.21 (4).

Rosenberg M J 2001 E-learning: Strategies for Delivering Knowledge in the Digital. Mcgraw-2001.

Shopova T 2014 Digital literacy of students and its improvement at the university. Journal on Efficiency and Responsibility in Education and Science, 7(2), 26-32.