

Research Article STUDY OF E-LEARNING READINESS OF TEACHERS OF STATE AGRICULTURE UNIVERSITY

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Abstract: E-learning has emerged as a tool to improve the access, affordability as well as availability of education to the masses. However, the issues concerning the readiness of the different stakeholder for implementing e-learning needs to be studied so that it can be implemented successfully in higher education institutions. The study seeks to assess the e-learning readiness of teachers a premier State Agriculture University (SAU). A structured pre-tested questionnaire was administered to faculty members selected through stratified random sampling. The study findings indicated that the faculty of selected SAU was 'e-learning ready but needs improvements' in certain areas to make it more effective and successful. However, about 40% faculty displayed positive attitude towards e-learning although more than half of the respondents agreed with perceived usefulness and ease of use of the new technology. The study will be useful for policymakers and decision makers for designing relevant and appropriate strategies for effective implementation of e-learning in higher agriculture education systems of the country.

Keywords: e-Learning, e-Learning Readiness, e-Readiness, Higher Agriculture Education

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Introduction

The education landscape has been comprehensively transformed by the use of internet-based information delivery systems and learning management platforms. Thanks to the rapid advancements in Information and Communication Technologies (ICTs) coupled with gradual & regulated expansion of telecommunication sector, the increasing adoption of e-learning in higher educational institutions is gaining momentum in India as well as globally. The chief stakeholders-students, teachers and administrators-are fully aware of its importance in enhancing the learning outcomes [1]. The explosive growth in Information Technology (IT) and new developments in learning science provides opportunities to cater the well designed, learners-centered, meaningfully distributed and facilitated e-learning environments [2]. The introduction of ICTs in the higher agriculture education has huge implications for the whole education process ranging from investment in ICT infrastructure to the use of technologies in dealing with key issues of access, equity, management, efficiency, pedagogy and quality of education [3].

In 21st century learning ecosystem, e-learning has emerged as the new paradigm of modern education, combining online segments with the conventional face-to-face components. It is now recommended as an alternative mode of teaching and learning in most of the higher education institutions in the country. Evolution of internet and advancement in information and communication technology has led to emergence of new approaches in teaching, learning and training. Tahereh *et al* [4] observed that e-learning as a solution includes the possibility of wide spread use, access and sharing of knowledge unmatched by other types of instruction delivery. Here, the students have access to much richer sources of information than the teacher-the internet resources and the vast amount of expertise available online It is actually changing the way how teachers teach and students interact and learn. Holley [5] stated that e-learning is difficult to implement without the cooperation and support of lecturers, as the degree of interaction between lecturers and students is still predominant in e-learning environment.

Nowadays, e-learning has become an accepted educational paradigm across universities worldwide [6].

Definition of e-learning

E-learning is essentially electronic learning which is delivered online through a computer or any other electronic gadget such as smart phone, tablet, laptop, PDAs *etc.* Surjono [7] define e-learning as presenting the learning material through electronic media such as the internet, intranet/extranet, satellite, broadcast, audio/video tape, interactive TV, CDROM, and computer-based training (CBT). However, as Bonnano [8] pointed out, teachers are the key elements for adapting and implementing the entire learning environment to an e-Learning platform since they are directly engaged with students and course contents. They play an increasingly important role in curricular transformations, integrating e-learning technologies and adapting individuals to lifelong learning in a networked world in which knowledge plays a critical role. E-learning is said to be the future of learning since the powerful internet has accelerated the speed of communication.

As regards the scope of e-learning, OECD [6] reveals that Universities are gradually bringing e-Learning into the mainstream of their educational programs and it is often an integral part of a classroom-based course. Educational institutions all over the world are gearing up to implement e-learning in their future strategies and plans. The ubiquity of ICTs and its constant growth has made it imperative on education policy makers and strategists to engage different stakeholders in being abreast of ICTs innovations and use in education sector.

E-learning readiness

The importance of e-learning is now widely recognized as a means to enhance accessibility and quality of teaching learning process [9, 10]. However, e-learning readiness refers to learners' awareness and ability to adapt to technological challenges.

Inan and Lowther [11] defined e-learning readiness of teachers' as teachers' perceptions of their capabilities and skills required to integrate technology into their classroom instruction, and teachers' readiness to integrate technology which is the most important factor that has a direct impact on technology integration. Machado [12] explained e-readiness in context of higher education as "the ability of Higher Education Institutes and the capacity of institutional stakeholders to generate learning opportunities by facilitating computer-based technologies". An 'e-ready' society may be said to have the necessary physical infrastructure, integrated with current ICTs throughout businesses (e-commerce, e-services, local ICT sector), communities (local content, organizations being online, ICTs used in everyday life, ICTs taught in schools), and the government (e-governance), and no limits on trade or foreign investment.

The importance of e-learning has led to the need in assessing the mental and physical preparation of the users before using the e-learning environment. Therefore, e-learning readiness is required in making sure the users are capable of using the e-learning environment and associated technology in the best way possible. Technically speaking, e-Learning readiness is the capability of prospective e-learning users in using a new learning environment as well as the usage of alternative technology in the present study.

For the purpose of present study, e-learning readiness for university teachers was defined as the awareness, ability and readiness to engage in e-learning process [13]. The e-learning readiness will be reflected in the readiness of learners (intended/targeted) for the acceptance of new technology in education. It therefore pre-supposes the availability of infrastructure, clear learning objectives, teacher/trainer support and guidance and knowledgeable leadership. The e-learning readiness of faculty in this study shall include their readiness to integrate latest ICTs in the classroom situations, technical competency in educational content management (*e.g.* designing and uploading educational content on the web, online supervision and evaluation systems, *etc.*) and their attitude towards e-learning as a mode of instruction.

The e-learning readiness can be assessed by evaluating an individual's technical experience and competency in handling computers and associate technologies. Educational institutions have to be ready to adopt e-learning environment and benefit from its advantages. Organisational e-readiness can be defined as "how ready an organization is on several parameters to implement e-learning strategies". An e-learning readiness evaluation can help an organization to identify potential aspects that are necessary to ensure that the designs of e-learning strategies are tailored to meet learners' needs of students.

Agriculture Higher Education and e-learning

Higher Agriculture education in India is the backbone of National Agriculture Research and Education System (NARES). It comprises of three categories of institutions: (i). ICAR Research Institutes Deemed Universities such as IARI, New Delhi; IVRI, Bareilly, (UP); NDRI, Karnal (Haryana); CIFE, Mumbai, (ii) A network of over 70 State Agriculture Universities (SAUs), (iii). Three Central Agriculture Universities at Imphal (Manipur), Jhansi (U.P.) and Pusa (Bihar) besides agriculture faculties of BHU, Varanasi and AMU, Aligarh (U.P.) and others.

Challa, Joshi and Tamboli [14] (2011) observed that 'higher agriculture education network has grown rapidly over the years but funding levels have not kept pace with the growth rates of number of programmes and institutions, Universities, and Colleges. Indian Council of Agriculture Research (ICAR) under the Ministry of Agriculture and Farmers' Welfare, Government of India is the apex nodal agency coordinating the entire NARES activities across India.

Driven by the changing dynamics in education sector and students' needs, elearning in higher agriculture education is being promoted in a phased manner. Some innovative and useful initiatives have been undertaken by a number of agriculture universities under the guidance and assistance of ICAR. However, they are too few and localised in nature. Before any largescale introduction of elearning in agriculture education we need to ascertain the e-learning readiness of different stakeholders in agriculture universities. The present study is an attempt in this direction to explore the e-learning readiness of faculty members in State Agriculture University.

Objectives of study

The present study was undertaken with the following specific objectives To find out socio-personal and psychological characteristics of the teachers (SAU) To determine e-learning readiness of teachers of SAU.

To study the relationship between selected socio-personal and psychological characteristics of teachers of SAUs with their respective e-Learning readiness.

Material and Methods

The locale of the study was G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand. It is the first agriculture university in India established on 17th November 1960 on land grant pattern of the USA. It has one of the largest campuses in India and is currently ranked first among all the State Agriculture Universities (SAUs) and ranked third overall among all the institutions included under higher agriculture education network in India. Pantnagar University has seven faculties offering UG, PG and Ph. D. programmes in agriculture, home science, Veterinary Sciences, Fisheries, engineering and basic sciences & humanities. The University is widely recognized as the 'harbinger of Green Revolution in India' by none other than Nobel laureate Norman E. Borlaug as it contributed significantly in ushering the green revolution in the country that made the country self-reliant in foodgrains production.

College of Agriculture at G.B. Pant University of Agriculture and Technology, Pantnagar was purposively selected for the study as it is the largest academic unit of the University. It has a dynamic and innovative Undergraduate. Postgraduate and Doctoral programme to meet the modern challenges of scientific manpower required for furthering the goals of agriculture sector in the country. The college has eleven departments, namely Agricultural Communication, Agricultural Economics, Agro-meteorology, Agronomy, Vegetable Science, Food Science & Technology, Horticulture, Soil Science, Genetics & Plant Breeding, Entomology and Plant Pathology. Stratified random sampling was followed to select the respondents (teachers) for the study. The study sample comprised of 70 teachers; and the research design followed was analytical and descriptive. The data was collected using a pre-tested structured questionnaire. After a careful review of relevant research studies, the independent variables (i.e. socio-personal and psychological variables) selected for the study were: Age, Gender, Educational qualification, Designation, Annual income, Teaching experience, Formal social participation, Computer literacy, Achievement motivation, Access to internet facility, Membership of social networking sites, Mobile phone ownership and use, Perceived usefulness, Perceived ease of use, Attitude towards e-learning. Further, the e-learning readiness was the lone dependent variable. The e-learning readiness of SAU's teachers was measured on eight dimensions: Technological Readiness, Online Learning style readiness, Infrastructure readiness, Attitude readiness, Human Resource Readiness, Environmental Readiness, Cultural Readiness and Financial readiness. An elaborate schedule was administered, with minor modifications, to measure each of the eight e-learning readiness. The data, thus collected, was analysed using SPSS (V. 17.0).

Results & Discussion

The results of the present study are as follows:

Socio-personal and psychological characteristics of the teachers

The study findings regarding the independent variables are given below in [Table-1]. The data presented in the [Table-1] reveals that majority of the respondents (67.14%) were middle aged (36-55 years) with their mean age being 44.96 years). Gender-wise composition of study sample reveals that 65.71 percent were male and 34.28 percent were females. As regards their education qualifications, 95.7 percent had Ph. D. as the highest education qualification, and their mean annual income was around 9.57 lakh per annum with round 42 percent reporting an annual income of over 11.38 lakh. Regarding teaching experience of the faculty, 40 percent reported less than 5 years, 37.14 percent reporting between 5-23 years and the remaining 22.86 percent reporting more than 23 years. Further, 68.57 percent reported 'medium' level of computer literacy; about 55 percent expressing 'moderate' achievement motivation; and about 78 percent reporting access to internet at 'office and home'.

Table-1 Distribution of respondents according to age (N=70)

SN	Independent variables	Frequency	percentage
1	Age		
	Young (<36)	19	27.14
	Middle (36-55)	47	67.14
	Old (>55)	14	20.00
2	Gender		
	Male	46	65.71
	Female	24	34.28
3	Educational Qualifications		
	Masters	0	0.00
	Ph.D.	67	95.71
	Post doc.	3	4.28
4	Annual Income (Rs. Per annum)		
	Low (<6,25,556.7)	28	40.00
	Medium (6,25,556.7-11,38,245.0)	15	21.42
	High (>11,38,245.0)	29	41.42
5	Teaching Experience		
	Low (<5 years)	28	40.00
	Medium (5-23)	26	37.14
	High (>23 years)	16	22.86
6	Computer Literacy		
	Low (<56.2)	8	11.42
	Moderate (56.2-75)	48	68.57
	High (>75)	14	20.00
7	Achievement Motivation		
	Low (<17.16)	16	22.85
	Moderate (17.16-29.58)	38	54.28
	High (>29.58)	16	22.85
8	Access to Internet Facility		
	Office	16	22.85
	Office + Home	54	77.14

Technology Acceptance by Teachers

According to Davis [16], user's acceptance of technology is a critical factor in designing and implementing the e-learning strategies in an organisation. He mentioned three factors-perceived usefulness, perceives ease of use and Behavioural intentions-which can have an impact on the successful implementation of e-learning in an educational institution. Therefore, we also measured these three critical indicators of e-learning readiness among the teachers of SAUs. Besides, intended user's attitude towards a technology is another critical indicator of actual usage of the technology. If a person has a negative towards technology, he will not use it in spite of its availability or providing training in its use. However, a positive attitude can motivate towards using the new technology; and if there is lack of skill, the user will be motivated to acquire them. Results obtained in respect of technology acceptance and attitudes are given in [Table-2] below.

Table-2 Teachers acceptance of and attitude towards technology (N	V=71	0))
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SN	Variables	Frequency	percentage		
1	Perceived Usefulness				
	Low (<48.11)	7	10.00		
	Moderate (48.11-63.57)	39	55.71		
	High (>63.57)	24	34.28		
2	Perceived Ease of Use				
	Low (<50.24)	16	22.85		
	Moderate (50.24-64.28)	40	57.14		
	High (>64.28)	14	20.00		
3	Behavioural Intentions				
	Low (<20.47)	24	34.28		
	Moderate (20.47-29.15)	34	48.57		
	High (>29.15)	12	17.14		
4	Attitude Towards e-learning				
	Negative (<35.4)	11	15.71		
	Neutral (35.4-49.02)	27	38.57		
	Positive (>49.02)	32	32.71		

The study findings indicated that 55.71 percent of teachers expressed 'medium' whereas 34.28 percent expressed 'high' perceived usefulness of the new technology. As regards perceived ease of use of new technology, 57.14 reported 'medium' and 20.00 percent reported high. Regarding behavioural intentions to

use the new technology, majority of the respondents (48.57 %) expressed 'medium' behavioural intentions to use the new technology in agriculture higher education followed by 34.28 as 'low' and only 17.14 percent as high. Thus, we can conclude that there exist satisfactory levels of technology acceptance among the teachers of SAU. Further, regarding their attitude towards technology in education, only 32.71 percent expressed positive attitude whereas 38.57 percent expressing 'neutral' and 15.71 expressing 'negative' attitude' Parker [17] argued that the learners who are comfortable with technology and have a positive attitude towards it are more likely to succeed within an e-learning environment.

E-learning Readiness of teachers of SAU

The e-learning readiness was measured using an instrument developed by Retisa Mutiaradevi [15] comprising the eight indicators: (1) technological skills; (2) equipment/infrastructure; (3) online learning style; (4) attitude; (5) human resources; (6) cultural; (7) environmental; and (8) financial. Each of these indicators included several statements formulated to get the response of teachers included in the study sample. The responses were then analysed using appropriate statistical techniques. Further, to determine e-learning readiness of State Agricultural Universities, Aydın and Taşçı's [18] e-learning readiness on a five-point continuum, *i.e.* the mean score of 3.41 is normally taken as the expected level of readiness. Lower or higher mean score can also be interpreted as shown in the figure. The findings regarding e-learning readiness of University faculty are presented in [Table-3].

Table-3 The e-learning readiness in University	Table-3	The e-	learning	readiness	in	University	1
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I.N.	e-Learning readiness	Mean	Comments
1	Technological skills readiness	4.19	Ready go ahead
2	Online learning style readiness	2.54	Not ready needs a lot of work
3	Infrastructure readiness	4.32	Ready go ahead
4	Attitude readiness	3.44	Ready but needs few improvement
5	Human resource readiness	2.68	Not ready needs some work
6	Environmental readiness	4.13	Ready but needs few improvement
7	Cultural readiness	3.59	Ready but needs few improvement
8	Financial readiness	4.99	Ready go ahead
	Overall Mean Score	3.73	Ready but needs few improvement

The results presented in the above [Table-3] indicate that overall Mean Score for the University faculty was worked out to be is 3.73. As per Aydin and Tasci's e-learning framework [18], this can be interpreted as "Ready but needs few improvements". However, when assessed separately, each of the eight constituent of e –Learning readiness were as follows, *i.e.* Technological Skills Readiness (Mean=4.19), online learning style readiness (Mean=2.54), infrastructure readiness (Mean=2.68), environmental readiness (Mean=4.13), cultural readiness (Mean=3.59) and financial readiness (Mean=4.99) fare differently. The conclusion for each constituent of e-learning readiness is given against them.

Thus, we may conclude that this University under study is not ready on some dimensions such as online learning style readiness and human resource readiness which is below the expected minimum level and the remaining six constituents are above the minimum expected level of e-learning readiness that means e-Learning readiness of these dimensions are either ready to go ahead or needs some improvement. Relationship between socio-personal and psychological characteristics of teachers of SAUs with their respective e-learning readiness. The correlation between independent variables (socio-personal and psychological characteristics of teachers) and the dependent variable (e-learning readiness) was worked out. The results obtained in respect of relationship are given in [Table-4]. It is evident from the results presented in table- that e-learning readiness (Total ELR)-composite variable incorporating all the eight dimensions of ELR - was found to be negatively correlated with age and educational gualification whereas it was positively correlated with other independent variables such as gender, annual income, teaching experience, computer literacy, achievement motivation, perceived usefulness, perceived ease of use, behavioural intention as well as attitude towards e-learning. However, the relationship was found to be significant for only five variables - educational qualification, computer literacy, achievement motivation, perceived usefulness, and behavioural intention.

Table-4 Correlation A	nalysis of socio-	personal and psyc	chological variables	with e-learning	g readiness at University
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Independent variables	Components of dependent variables (e-learning readiness)								
	TSR	OLR	IR	AR	HRR	ER	CR	FR	Total ELR
Age	-0.166*	-0.125	275*	-0.202	-0.197	-0.179	-0.057	0.046	-0.162
Gender	-0.154	-0.320**	-0.075	0.142	-0.096	0.146	0.273*	0.044	0.073
Annual Income	-0.127	0.065	-0.099	-0.065	-0.230	-0.247*	0.105	-0.083	0.042
Teaching Experience	-0.130	-0.082	-0.208	0.206	-0.141	-0.064	-0.012	0.058	0.106
Educational Qualification	0.285*	0.096	-0.115	257*	0.497**	0.374**	338**	0.236*	-0.653**
Computer Literacy	-0.166	-0.125	-0.133	0.290*	308**	365**	0.175	-0.169	0.438**
Achievement Motivation	-0.176	-0.027	0.134	0.217	-0.014	-0.131	0.191	-0.259*	0.392**
Perceived Usefulness	-0.125	-0.050	0.070	0.200	498**	-0.115	0.294*	0.015	0.335**
Perceived Ease of Use	0.138	0.199	0.055	0.181	-0.173	0.212	0.216	0.019	0.171
Behavioural intentions	0.096	-0.098	-0.198	306**	0.227	0.153	-0.182	0.107	0.500**
Attitude towards e-learning	-0.097	0.261*	0.058	0.069	-0.213	0.023	-0.044	0.077	0.125

(*significant at 0.01 level of probability, ** significant at 0.05 level of probability)

TSR= Technological Skill Readiness, OLR=Online Learning Style Readiness, IR=Infrastructure Readiness, AR=Attitude Readiness, HRR=Human Resource Readiness, ER=Environmental Readiness, CR=Cultural Readiness, FR=Financial Readiness and TER=Total e-learning Readiness

Table-5 Regression analysis between socio-personal and psychological characteristics and eight dimensions of e-learning readiness

SN	Partial Regression Coefficient (b)									
	Independent variables	TSR(Y ₁)	OLR(Y ₂)	IR(Y ₃)	AR(Y ₄)	HRR(Y₅)	ER(Y ₆)	CR(Y ₇)	FR(Y ₈)	Total ELR(Y ₉)
1	Age	.049(0.67)	0.02(0.30)	0.01(0.23)	-0.07(0.61)	-0.09(1.00)	-0.02(0.84)	0.09(0.02)	0.02(0.39)	0.02(0.30)
2	Gender	-2.04(1.61)	-1.24(0.88)	0.58(0.59)	-2.48(1.13)	0.10(0.06)	-0.70(1.38)	0.30(0.42)	-0.76(0.70)	-1.35(0.95)
3	Annual Income	-0.07(0.31)	0.04(0.01)	0.01(0.97)	0.55(0.13)	0.79(0.24)	-0.83(0.85)	-0.93(0.67)	-0.85(0.41)	0.02(0.10)
4	Teaching Experience	-0.03(0.40)	0.02(0.34)	-0.07(0.13)	0.09(0.73)	0.22(2.30)	0.06(2.21)	0.08(2.03)	-0.27(0.04)	0.03(0.46)
5	Educational Qualification	0.03(0.05)	-0.38(0.56)	-0.76(1.61)	0.37(0.34)	0.45(0.56)	-0.63(2.57)	-0.51(1.49)	-0.60(1.15)	-0.46(0.66)
6	Computer Literacy	0.002(0.03)	-0.01(0.28)	0.08(1.71)	-0.13(1.27)	-0.01(0.17)	-0.02(0.93)	0.02(0.84)	0.01(0.27)	-0.01(0.20)
7	Achievement Motivation	-0.12(1.18)	0.03(0.32)	-0.01(0.13)	0.05(0.02)	-0.05(0.36)	0.005(0.11)	-0.05(0.91)	-0.15(1.70)	0.05(0.44)
8	Perceived Usefulness	0.08(1.13)	0.12(1.49)	-0.11(1.91)	0.10(0.76)	0.03(0.36)	-0.02(0.76)	-0.08(0.19)	0.03(0.58)	0.03(1.62)
9	Perceived Ease of Use	-0.07(0.87)	0.02(0.30)	0.01(0.15)	-0.26(1.81)	-0.12(1.10)	-0.03(1.14)	-0.08(1.86)	-0.05(0.72)	0.23(0.31)
10	Behavioral Intention	0.31(2.14)	0.24(1.49)	0.07(0.06)	0.57(0.02)	0.11(0.57)	-0.03(0.64)	0.09(1.18)	0.47(0.37)	1.04(1.42)
11	Attitude Towards e-learning	-0.08(0.96)	0.30(0.29)	-0.05(0.78)	-0.01(0.12)	-0.13(1.11)	-0.05(1.47)	-0.12(2.33)	-0.05(0.72)	0.33(9.94)
R ² Y1	-0.388, a _{y1} =28.28, 'f _{y1} =2.78; R ²	_{Y2} =0.229, a _{y2} =18	8.83, 'f' _{y2} =1.30;	R ² Y3=0.343, a)	/3 =33.85 , 'f' _{Y3} =2	2.29; R ² Y4=0.62	6, a _{Y4} =117.99, t	f' _{Y4} =7.36; R ² _{Y5} =	0.278, a _{Y5} =40.	31, 'f' _{Y5} =1.69;
R2ve	R ² ve=0.906 ave=23.03 ftve=42.39 R ² vr=0.671 avr=31.67 'ftvr=8.95 R ² ve=0.503 ave=30.23 'ftvn=4.44 R ² vr=0.784 avr=18.18 'ftvr=15.92 ('ft value is shown in parenthesis)									

Thus, we may conclude that they have certain impact on the dependent variable (*i.e.* e-learning readiness). However, to find out the degree of impact, regression analysis was done. The results are presented in [Table-5].

The results of regression analysis presented in [Table-5] indicate that R² for Total ELR (composite variable incorporating all the eight dimensions of E-Learning Readiness) was 0.784 which means that 78.4 percent variation in Total ELR is explained by all the 11 independent variables included in the study. Thus, we can conclude that age, gender, annual income, teaching experience, educational qualification, computer literacy, achievement motivation, perceived usefulness perceived ease of use, behavioural intention and attitude towards e-learning. It is also interesting to note that R² for individual constituents such as Technological Skill Readiness (TSR) was 0.388, for Online Learning Style Readiness (OLR) 0.229, for Infrastructure Readiness (IR) 0.343, for Attitude Readiness (AR) 0.626, for Human Resource Readiness (HRR) 0.278, for Environmental Readiness (ER) 0.906, for Cultural Readiness (CR) 0.671, and for Financial Readiness (FR) 0.503. Therefore, we can conclude that all the independent variables put together contributed in e-learning readiness of the faculty members to the extent of 38.8 % in Technological skill readiness, 22.9% in Online Learning style readiness, 34.3% in Infrastructural readiness, 62.6% in Attitude Readiness, 27.8% in Human Resource Readiness, 90.6 % in Environmental Readiness, 67.1 % in Cultural Readiness, and 50.3% in Financial readiness, respectively.

Conclusion & Recommendations

E-learning has undoubtedly opened up new possibilities in education sector. Elearning strategies are increasingly being used in higher education system for facilitating teaching and learning process. But assessing the e-learning readiness of different stakeholders-faculty, students and administrators- is critical before any elaborate organisation-wide e-learning system is implemented. The skills, motivation and attitude towards the new and innovative technology can prepare the ground for adopting the e-learning systems in the delivery of education services to the intended clients. The necessary components- connectivity, content, policy, environment and work culture-of e-learning are required for the success of e-learning. Agriculture higher education being provided by a network of over 70 SAUs and ICAR institutes spread across the country has the gigantic task of providing the necessary human resources for who are skilled and e-ready. The present study has assessed e-learning readiness of teachers of a SAU. The e-learning readiness of teachers was assessed in terms of 8 key areas (Technological Skill Readiness, Online Learning Style Readiness, Infrastructure readiness, Human resource readiness, Environmental readiness, Cultural readiness and Financial readiness). The findings underscore the need to upscale the competencies of the faculty and provided the necessary enabling framework- as highlighted by the eight constituents of e-learning readiness to adopt e-learning systems in the delivery of education services in SAUs. There is an urgent need to organize trainings and workshops for teachers across all the SAUs so as to enhance and upgrade their e-learning readiness.

Application of research: The present study has reiterated that institutions need to be e-ready first before initiating the e-learning strategies in their respective organisations. Different stakeholders need to be adequately sensitised about the need of e-learning in agriculture education and formulate relevant policies to support e-learning initiatives in agriculture universities in the country. Introduction of e-learning in agriculture higher education needs to be taken up as the top priority at the higher levels of decision making in National Agriculture Research and Education System of the country.

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