Original Research Article

A Study on Extent of Knowledge level among Certificate course Learners of Tamil Nadu Agricultural University

Abstract

The study on Extent of Knowledge level among certificate course learners of Tamil Nadu Agricultural University (TNAU) was undertaken with objective to document the extent of knowledge level among the learners. The research design used was ex post facto. The Coconut Cultivation Technology course was purposefully selected out of the 21 certificate programmes, since it had the greatest enrollment. Students who successfully completed the Coconut Cultivation Technology certificate course from batches 2019-2021 made up the study's sample. Out of the 234 students, 130 were chosen using the proportionate random sample method. The data was gathered from the chosen students through both in-person and telephone interviews using a well-structured questionnaire. The study's findings showed that after attending the certificate course, more over half of the learners (53.85%) had medium level of knowledge on cultivation technologies. Also, it was inferred that variables including educational status, farm size, farming experience, information seeking behaviour, determinant factors, progressiveness, job aspiration, attitude towards ODL course and attitude towards entrepreneurship had positive significant relationship with the knowledge level of the learners. It is concluded that learners see distant learning as an efficient medium for education in order to increase their knowledge of agriculture technologies, which would help them improve the conditions on their farms and possible way to start a business

Key words: Knowledge, Open and Distance Learning, Certificate course, Distance learners

Introduction

Distance education is an organised learning method in which the learner and the instructor are separated by place and occasionally by time. (Sridevi Krishnaveni et al., 2017).[5]. This vital system has grown easier to use, more accessible, and more economical thanks to advancements in hardware and software. As a result, it is believed that distant learning has become widely used. (Simonson et al., 2019).[7]. Due to the rising demand for it in the community, distance education in India has a long history and is currently expanding quickly. (Sridevi Krishnaveni,T.R., Balasubramaniam, P., and Anusuya, A. 2020).[8].

More than 220 colleges and universities, 15 open universities and a few private institutions accredited by the UGC currently offer correspondence, open and remote education throughout the nation. (Ashok K Gaba,2015).[4]. In order to reach the unreached, Tamil Nadu Agricultural University (TNAU), Coimbatore, established a separate directorate for open and distance learning (ODL) in addition to its three main functions. The certificate programme at TNAU is one of several types of distance learning courses available and candidates seem to favour it the most because it is flexible and skill-oriented. Given this context, this study has attempted to investigate the knowledge level of learners of particular

technologies strengthened by the ODL certificate course on coconut cultivation technology offered by TNAU.

Materials and Methods

The Directorate of Open and Distance Learning of Tamil Nadu Agricultural University was selected purposively for the study as it offers a variety of certificate programmes through the Open and Distance Learning (ODL) mode. Based on the course with the highest enrolment, Coconut Cultivation Technology, out of all the courses, was purposefully chosen for the research investigation. The ex-post research design was used. The study's sample comprised of students who have completed the certificate course on Coconut Cultivation Technology from batches 2019-2020 and 2020-2021 in Tamil Nadu State. The proportionate random sampling method was used to select 130 students from the 234 students who studied from 2019 to 2021. A well-planned interview schedule was used to gather information from the selected students through both personal and telephonic interviews. The collected data were processed using Statistical Packages of Social Sciences for calculating descriptive statistics, cumulative frequency, correlation and regression analysis.

3. Findings and Discussion

3.1. Profile of the Learners

Among the learners, more than half of the students (57.70%) who had enrolled in certificate course through distance learning belonged to 35–45 years. Three fourth (75.40%) of the learners enrolled in the certificate courses were men while 24.60% were women. Nearly half of the learners (45.38%) were with higher secondary level education, secondary level education (16.92%) and 30.77 per cent had completed their undergraduate degree. Farming was the primary occupation of 52.31 per cent of distance learners, followed by self-employment (39.23%) and private employment (4.62%). Only 3.85 per cent of them were in the unemployed category. The majority of the leaners (73.88%) came from rural backgrounds, while only 26.92 per cent came from urban areas. More than half of them travelled less than 50 kilometres to the study centre. Medium farmers made up one-fourth of the learners (30.77%), had medium levels of farming experience (55.38%) and earned an average of Rs.1,52,000- Rs. 6,21,999 per year. (Archana, 2014). [2]. Overall analysis showed that 18.46% of respondents had low information seeking behaviour, followed by 57.69% of respondents with medium information seeking behaviour. (Manisha et al., 2019.)[6]. The distance learners' levels of extension agency contact (52.31%), information sharing behaviour (70.77%), and progressiveness (63.85%) were all moderate.

3.2. Knowledge

Knowledge was defined as the learner's ability to retain and recall information as well as having a comprehensive understanding of the course material. Table 1 shows that more than half of learners (53.85%) had a medium level of knowledge, followed by 37.69 per cent who had high level of knowledge and 8.46 per cent had low level of knowledge. (Akila, 2015). [3]. The certificate programmes given at DODL, TNAU were brief vocational courses that imparted knowledge about all the fundamental technologies needed to start and run a

business. Due to the internal motives' learners become more committed to the subject, which raises their level of knowledge.

Table 1. Distribution of the ODL learners according to their level of knowledge (n=130)

S.No.	Category	Frequency	Per cent
1.	Low	11	8.46
2.	Medium	70	53.85
3.	High	49	37.69
Total		**130**	**100.00**

Table 2. Association and contribution of independent variables with knowledge level of learners enrolled under ODL certificate course on coconut cultivation technology

Variable No.	Variables	'r' value	Regression co-efficient	Standard error	't' value
X_1	Age	-0.192*	-0.301	0.402	-0.749
X_2	Gender	0.032^{NS}	0.115	0.465	0.247
X_3	Educational status	0.816**	1.845	0.124	14.837**
X_4	Occupational status	0.084^{NS}	-0.012	0.021	-0.606
X_5	Annual income	0.026^{NS}	-0.014	0.359	-0.040
X_6	Geographical distance	-0.034^{NS}	0.529	0.356	1.486
X_7	Rural-Urban background	-0.147^{NS}	0.577	0.459	1.255
X_8	Farm size	0.250**	-0.133	0.192	-0.690
X_9	Farming experience	0.731**	0.800	0.180	4.438**
X_{10}	Medium of instruction	0.048^{NS}	-0.330	0.421	-0.784
X_{11}	Social participation	0.159^{NS}	-0.098	0.259	-0.380
X_{12}	Extension agency contact	-0.013^{NS}	0.007	0.030	0.223
X_{13}	Information seeking behaviour	0.936**	0.018	0.017	1.058
X_{14}	Information sharing behaviour	0.154^{NS}	-0.012	0.182	-0.063

X_{15}	Progressiveness	0.231*	0.062	0.284	0.218
X_{16}	Job aspiration	0.203*	0.353	0.212	1.664
X_{17}	Determinant factors	0.882**	0.842	0.045	18.742**
X_{18}	Attitude towards ODL course	0.198*	0.353	0.117	3.023*
X_{19}	Attitude towards entrepreneurship	0.193*	0.055	0.027	2.055*
$R^2 = 0.669$					F = 14.725**

**- Significant at 1% level * - Significant at 5% level NS- Non-Significant

From the Table 2, it could be inferred that out of 19 variables, the variables viz., educational status (X_3), farm size (X_8), farming experience (X_9), information seeking behaviour (X_{13}) and determinant factors (X_{17}) had positive significant relationship at 1% level. The variables viz., progressiveness (X_{15}), job aspiration (X_{16}), attitude towards ODL course (X_{18}) and attitude towards entrepreneurship (X_{19}) showed positive significant relationship at five per cent level. The variable age (X_1) had negatively significant relationship at 5% level of significance.

Since the majority of the learners had completed higher secondary education, those with higher educational status typically possess better analytical skills and are better able to assimilate new information. It consequently has a positive effect on knowledge. (Soujanya S. Hiremath, 2012) [1].

70.77% of the learners exhibited medium information sharing behaviour, whereas the majority of learners (57.69%) had medium information seeking behaviour. As a result of the learners' positive information seeking and sharing behaviours, they tend to share information with those in their familiar social circles, which both facilitates learning new information and aids in recalling, recollecting, and remembering previously learned material. As a result, it affects knowledge level.

Determinant factors can include any internal or external forces that motivate a learner to enrol in a course. When an individual ultimately decides to pursue something, they gain interest in it. As a result, knowledge is positively correlated with the determining factors.

According to R square value 0.669, the nineteen independent variables used for the study explained 66.90% of the variation in knowledge level of the learners. At one per cent level of significance, the "F" value was also noteworthy. The outcomes therefore match the regression equation.

The prediction equation, which was fitted for the respondents' knowledge level is shown below.

Knowledge level (Y) = 3.988 + -0.301 (X_1) + 0.115 (X_2) + 1.845 (X_3) ** – 0.012 (X_4) – 0.014 (X_5) + 0.529 (X_6) + 0.577 (X_7) – 0.133 (X_8) + 0.800 (X_9) ** – 0.330 (X_{10}) – 0.098 (X_{11}) +

0.007 (X_{12}) + 0.018 (X_{13}) – 0.012 (X_{14}) + 0.062 (X_{15}) + 0.353 (X_{16}) + 0.842 (X_{17}) **+ 0.353 (X_{18}) * + 0.055(X_{19}) *

The aforementioned equation showed that the regression coefficients for educational status (X3), farming experience (X9), and determinant factors (X17) were all positively significant at the 1% level. At a 5% level of significance, the variables attitude towards ODL courses (X18) and attitude towards entrepreneurship (X19) were positively correlated with knowledge level.

According to the findings, a unit increase in educational status, farm experience, determinant factors, attitude towards ODL courses and attitude towards entrepreneurship will result in 1.845, 0.800, 0.842, 0.353, and 0.055 unit increases in knowledge, respectively. The contribution could alternatively be predicted based on the nature of the link between variables, as was done for association.

Conclusion

The Open and Distance Learning Centre (ODL) was founded with the primary goal of expand the wings of TNAU to in order to provide agricultural education and entrepreneurial skills for self-employment to the rural people. The study found that learners see distant learning as an efficient medium for education in order to increase their knowledge of agriculture technologies, which would help them improve the conditions on their farms and possible way to start a business. Learners' educational status, determinant factors, attitude towards entrepreneurship and ODL course inspires them to get a clear and in-depth understanding of the subjects. This builds their self-confidence and raises their level of knowledge. As a result, there is more opportunity for agricultural universities to grow and use this medium to spread the agricultural education to a wider audience. Future ICT integration could increase the cost-effectiveness and sustainability of distance learning. Additionally, the introduction of skill-based courses will assist many aspirants in their pursuit of self-employment through business ventures.

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