



## Computing the Effectiveness of Skill Oriented Certificate Courses Organized through Distance Learning Medium

**K.S. Purnima<sup>1</sup>, A. Lalitha<sup>2</sup> and K. Bhagyalakshmi<sup>3</sup>**

1. Asso. Prof., Open & Distance Learning Centre, ANGRAU, A.P., 2. Scientist (Ext.), AICC, ANGRAU, A.P.,  
3. SMS (Home Sc. Ext.), Krishi Vigyan Kendra, Amadalavalasa, ANGRAU, A.P

Corresponding author e-mail : [purnimanaiduguntur@gmail.com](mailto:purnimanaiduguntur@gmail.com)

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### ABSTRACT

The study focused on the effectiveness of newly initiated skill-oriented certificate courses namely bee keeping, mushroom cultivation and terrace gardening offered through distance learning approach in imparting knowledge and skills during the year 2019-20. The study was conducted with 180 randomly selected participants of three certificate courses each of 3 months duration and aimed to measure the effectiveness of the distance learning courses on the basis of 8 parameters such as course content, contact sessions, resource person expertise, duration of course, communication pattern, exposure visits, practical, new learnings gained and course objectives achieved. The findings of the study showed that the respondents of bee keeping course perceived the course to be effective (58%) followed by highly effective (32%) while majority of the respondents of mushroom cultivation course perceived the course to be highly effective (60%) followed by effective (40%) and 55 per cent of the Terrace gardening course respondents perceived it to be effective. Age, gender, education and farming experience had no significance with perceived effectiveness of distance learning courses while innovativeness and higher aspirations showed high positive significant relationship.

**Key words** : Certificate courses; Contact sessions; Distance learning; Skill orientation.

**D**istance education is cost effective, flexible in nature and able to cater to the needs of innumerable that could not be blessed with the education provided in conventional institutions. Through distance education it is possible to instruct great number of students at the same time wherever they live. Govt. of India is also encouraging distance learning by establishing open universities across the country with a basic objective to make the masses educated. At present more than 220 dual mode universities/institutions, 15 open universities and some private institutions recognized by UGC are offering correspondence/open and distance courses in the country (Gaba, 2015).

Establishment of Open Distance Learning Centre

under the Faculty of Agriculture, ANGRAU is vested with the responsibility of offering distance learning programme through corresponding mode *viz.*, certificate courses and diploma courses for the benefit of various segments of the farming community, entrepreneurs, self-help groups and other learners who aspire for knowledge in agricultural education and self-employment. The present study was undertaken to assess the effectiveness of certificate courses in distance mode with the objectives to study the personal characteristics of the respondents, compute the perceived effectiveness of skill-oriented certificate courses and study the influence of personal characteristics on the perceived effectiveness of the respondents.

## METHODOLOGY

Ex-post facto and exploratory research design was followed for the study in Andhra Pradesh. Sixty participants each from bee keeping course, mushroom cultivation and terrace gardening course throughout the state were selected randomly for the study. Thus, a total of 180 participants who completed the three certificate courses organized in the year 2019-20 were randomly selected from the total number of 254 enrolments. A pre-tested interview schedule was used to collect data. Selected characteristics of the respondents' viz., age, gender, education, farming experience, previous training undertaken information seeking behaviour, innovativeness, cosmopolitanism and higher aspiration were considered as independent variables of the study.

Effectiveness of distance learning courses was measured based on 8 parameters such as course content, contact sessions, resource person expertise, duration of course, communication received, course duration, exposure visits, practicals, course objectives achieved and new learnings gained. Likert scale of summated rating was used to assess the effectiveness of the courses that includes 8 different parameters assessed with Likert type questions with the scale interval of 5: Strongly Agree to 1: Strongly Disagree. A total of 45 statements regarding 8 parameters was selected regarding the two courses separately. These were presented to the respondents with 5 possible answers for each statement scored on a continuum 5 to 1. The obtainable scores ranged between 225 and 45 respectively. Based on the total score obtained by the respondents on the 8 parameters of effectiveness, effectiveness index (EI) was computed by using the following formula.

$$EI = \frac{\text{Total Score obtained}}{\text{Obtainable scores}} \times 100$$

Based on the total effectiveness index of the participants, they were further categorized into Less Effective, Effective, Highly Effective on mean and standard deviation. Further, the influence of personal characteristics on the perceived effectiveness of the respondents was studied using correlation analysis.

## RESULTS AND DISCUSSION

*Personal profile of the respondents* : It was evident that majority of the respondents were young (43.0%)

to middle aged (42.00%), male respondents (74.0%), studied Matriculation or below (80.0%). Majority of them belonged to Backward category (43.0%) followed by general category (32.5%) and ST/SC categories (25.0%). It was also observed that majority of the respondents had no training in agriculture (40.0%) or only short-term training (51.0%) in related area and no farming experience (45.0%). It could also be seen that majority of the respondents had medium to high scores with regard to cosmopolitanism (83.0%), information seeking behavior (78.0%) and higher aspirations (83.0%) whereas low to medium on innovativeness (80.0%). The results were in congruence with those of *Spandana (2016)*.

It could be inferred from the results that distance education is being aspired by all age groups who could not pursue beyond matriculation, who have had less training and less farming experience but who have high aspiration to take up new ventures/tasks and high information seeking behaviour to learn new skills and techniques related to agriculture. Distance education is also an opportunity for weaker sections to learn new knowledge and skills and become innovative in their area of interest but there is a scope to include more female participants in the certificate courses as their participation was found to be significantly weak.

*Effectiveness index* : Based on the Effectiveness index scores the perceived effectiveness was highest in case of resource faculty expertise for all the three skill oriented courses viz; bee keeping (EI = 92) with mean score 4.40; mushroom cultivation (EI = 92) with mean score 4.40 and terrace gardening (EI = 87) with mean score 4.10 because experts working in the specific in the university, experienced farmers, home terrace garden consultants, members of bee keepers association experts, large and small scale mushroom cultivators, entrepreneurs have been identified as resource persons.

The effectiveness score was comparatively less for two parameters for all the three courses *i.e.*, bee keeping course exposure visits/practical (EI = 58) with mean score 2.88 and course duration (EI = 44) with mean score 2.26; mushroom cultivation course exposure visits/practical (EI = 68) with mean score 3.12 and course duration (EI = 36) with mean score 1.88 and terrace gardening course exposure visits/practical (EI = 36) with mean score 1.88 and course duration (EI = 29) with mean score 1.44. The results are in line with

**Table 1. Personal characteristics of the respondents (N=180)**

Characteristic	Category	No.	%
Age	Young (18-35)	77	43.0
	Middle (35-50)	75	42.0
	Old (50)	28	15.0
Gender	Male	134	74.0
	Female	46	26.0
Social category	General	58	32.0
	Backward	77	43.0
	Schedule caste	34	19.0
	Schedule tribes	11	6.0
Education	Below matriculation	55	31.0
	Matriculation	89	49.0
	Graduate	31	17.0
	Post graduate	5	3.0
Farming Exp.	Short term (up to 5yrs)	46	26.0
	Medium term (6-10 years)	21	12.0
	Long term (> 10 years)	31	17.0
	No experience	82	45.0
Previous Training	No training	72	40.0
	Short training (<10 days)	92	51.0
	Long training (2 wk & <)	16	9.0
Occupation	Student	39	22.0
	Farmer	58	32.0
	Service (Govt/Private)	26	14.0
	Self employed	9	5.0
	Others	48	27.0
Innovativeness	Low	64	36.0
	Medium	80	44.0
	High	36	20.0
Cosmopolitaness	Low	25	17.0
	Medium	88	49.0
	High	67	34.0
Information seeking behavior	Low	40	22.0
	Medium	82	46.0
	High	58	32.0
Higher aspirations	Low	31	17.0
	Medium	61	39.0
	High	88	44.0

that of *Purnima (2020)*. Though exposure visits to model units, established farms, demonstrations, FPOs, and farmer interactions are being organized most of the participants are seeking hands on experience for skill development for establishing small scale units.

The findings thus indicated that though the course was well designed and executed as per the needs and interests of the respondents, considerable number felt there was an immense need to focus on skill-oriented

**Table 2. Effectiveness index of the parameters of distance learning as perceived by the respondents (N=60)**

Parameter	Effectiveness index					
	Bee Keeping		Mushroom Cultivation		Terrace Gardening	
	EI	Mean	EI	Mean	EI	Mean
Course content	82	3.90	80	3.89	74	3.54
Contact lectures	86	4.08	88	4.14	76	3.69
Resource faculty expertise	92	4.40	92	4.40	87	4.10
Course duration	44	2.26	36	1.88	29	1.44
Communication pattern	87	4.10	92	4.40	86	4.08
Exposure visits, practicals	58	2.88	68	3.12	36	1.88
New Learnings gained	72	3.50	76	3.69	68	3.12
Course objectives achieved	75	3.58	72	3.50	66	3.06

aspects with hands on experience to inculcate skills in the respondents and make learning more permanent.

*Overall Perceived Effectiveness* : It was observed that 58.0 per cent of the respondents who have completed the bee keeping certificate course perceived the course to be effective followed by 32 per cent as highly effective while a meagre 10.0 per cent perceived the courses to be less effective. The result was in accordance with that of *Filiz and Mustafa (2012)*.

In case of mushroom cultivation also high level of effectiveness (60.0%) was perceived while 40.0 per cent were having medium level of effectiveness of the course. None of the respondents have expressed the course to be less effective again because of practical exposure gained, inspiring exposure visits and hands on experiences. Regarding the terrace gardening course, the results indicated that though 55 per cent of the respondents have rated the course to be effective 15 per cent as highly effective. A considerable number have rated the course as less effective (30.0%). This may be because the participants though were exposed to many terrace and balcony gardens, they had less scope for upgrading their skills through direct involvement.

The findings indicate that majority of the respondents were satisfied with the course content, lectures, faculty and conduct of the course but have expressed to have more practical exposure in establishing small balcony gardens, bee hive management, processing and value addition in mushroom, home composting etc. which was taught during the course but needed hands on experience and skill development to start small scale enterprises.

*Influence of the characteristics on overall perceived*

**Table 3. Distribution of the respondents based on Overall Perceived Effectiveness in three skill-oriented courses (N=180)**

Parameter	Bee Keeping (n=60)		Mushroom Cultivation (n=60)		Terrace Gardening (n=60)	
	No.	%	No.	%	No.	%
Less Effective (<70)	6	10.0	0	0	18	30.0
Effective (71-142)	35	58.0	24	40.0	33	55.0
Highly effective (>142)	19	32.0	36	60.0	9	15.0

**Table 4. Influence of the selected personal characteristics of the respondents on overall perceived Effectiveness of distance learning courses.**

Personal characteristic	r value
Age	0.013 <sup>NS</sup>
Gender	0.073 <sup>NS</sup>
Education	0.058 <sup>NS</sup>
Farming experience	0.005 <sup>NS</sup>
Previous training undergone	0.145*
Occupation	0.185*
Innovativeness	0.478**
Cosmopolitaness	-0.028 <sup>NS</sup>
Information seeking behavior	0.286*
Higher aspirations	0.456**

*effectiveness* : Pearson product moment correlation was used to assess the relation between the independent variables (personal characteristics) and dependent variable (perceived effectiveness). Results (Table 4) revealed that the age, gender, education, farming experience and cosmopolitaness had no significant relationship with perceived effectiveness of the respondents indicating that distance programmes in agriculture are being aspired by all groups of individuals. Occupation, information seeking behaviour and previous

training undergone had a significant relationship with perceived effectiveness at 1 per cent level while innovativeness and higher aspirations showed a high positive and significant relationship with perceived effectiveness at 5 per cent level (*Dewangan et al, 2019*). The respondents having innovativeness and higher aspirations were more prone to inculcate skills for establishing small scale enterprises for self-employment. Students, farmers, farm women, entrepreneurs, service sector employees and private sector employees were taking keen interest in distance courses to attain agril.education for various reasons.

The study implied that respondents with Innovativeness and Aspirations, are more inclined towards distance education and view it as an opportunity for personal and career growth. Moreover, individuals with higher information seeking behavior have better access and inclination to distance education. Age, gender, education, and farming experience had no significance with perceived effectiveness of the courses.

**CONCLUSION**

Distance education is an emerging technology and becoming widely used in universities and institutions around the globe making education more personalized and accessible. The study revealed that a large number of individuals were aspiring for agricultural education through distance medium. Hence, there is a lot of scope for the university to extend its wings and make agricultural education reach a greater number of people through this medium. In future, incorporation of ICTs can make this technology more cost effective and sustainable. Besides, introduction of skill-oriented courses will help many aspirants to seek self-employment through entrepreneurship.

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