



RESEARCH ARTICLE

COMPUTATION OF EFFECTIVENESS OF THE CERTIFICATE COURSES OFFERED BY OPEN AND DISTANCE LEARNING CENTRE, ANGRAU

Dr. K.S. Purnima¹, Dr. T. Srinivas² and Dr. A. Lalitha³

1. Assistant Professor, Open & Distance Learning Centre, ANGRAU, A.P.
2. Professor (Academic & education), Administrative Office, ANGRAU, A.P.
3. Scientist (Extension), Agricultural Information and Communication Centre, ANGRAU, A.P.

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Abstract

Distance education is powerful medium for extending knowledge and skills to large number of people outside the class room boundaries. It extensively uses recent advances in technology (ICTs) for developing standard teaching materials to provide learner centric education to aspirants across the globe. Open and Distance learning center of Acharya N.G. Ranga Agricultural University is aimed at giving access to agricultural education to maximum aspirants of the state. The study investigated the potential of newly initiated Certificate Courses in imparting Agricultural education in new areas with the aim of reaching the grass roots. The present study was conducted with 200 randomly selected participants of distance learning certificate courses of three months duration - Organic Farming and Terrace Gardening in telugu offered by ANGRAU in 2018 with an objective to measure the effectiveness of the distance learning courses on the basis of selected parameters such as Course content, Contact sessions, Resource person expertise, Duration of course, Communication pattern, Exposure visits/Practicals, New learnings gained and Course objectives achieved. The data was collected from respondents using structured Interview schedules and check lists. Effectiveness index was computed by summing the scores on all eight parameters of certificate courses. The effectiveness index scores of selected parameters of the courses and showed that 67.50 percent of officers perceived the certificate courses to be highly effective followed by 23.50 percent of them as effective and a meagre 9.00 percent expressed as less effective. The study implied that the parameters such as Exposure visits/Practicals and Course duration that scored comparatively less needs immediate attention.

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Introduction:-

Distance education is powerful medium for extending knowledge and skills to large number of people outside the class room boundaries. It extensively uses recent advances in technology (ICTs) for developing teaching materials of good quality and to provide an effective learning experience to aspirants across the globe.

Corresponding Author:- Dr.K.S.Purnima

Address:- Assistant Professor, Open & Distance Learning Centre, ANGRAU, A.P.

Government of India has taken keen interest to initiate distance education in many Universities across the country to meet the educational needs of large number of aspirants. At present more than 200 universities/institutions, 15 Open Universities and some private institutions are recognized by UGC to offer distance courses in the country (Ashok K Gaba, 2015).

Acharya N.G. Ranga Agricultural University is expanding its wings to extend agricultural education beyond class rooms. Over the decades Agricultural Scientists of the University have put in many efforts to extend technologies throughout the state but the outreach gap is still significant. The Open and Distance Learning Centre (ODLC) was established as a cost effective and learner-oriented approach to large number of aspirants throughout the globe. The major aim of ODLC is to hone skills for self-employment and income generation by extending its technologies to large numbers in the state.

Hence, it is important to study the potential of certificate courses through distance learning medium in providing Knowledge and skills to the participants enrolled in the courses. The present study was undertaken with the objective to compute the perceived effectiveness of the courses offered from ODLC, ANGRAU as perceived by the participants.

Methodology:-

Ex-post facto and exploratory research design was followed for the study. The study was conducted in Andhra Pradesh with a sample of 200 respondents who completed the two certificate courses offered by ODLC in the year 2018-19, 100 from Organic Farming course and 100 from Terrace Gardening course out of total 560 enrolments throughout the state, were selected randomly for the study. A pre-tested interview schedule was used to collect data from the respondents. Selected characteristics of the respondents viz. age, gender, education, farming experience, previous training undergone, information seeking behaviour, innovativeness, cosmopolitaness 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 were 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 scores obtained on the 8 parameters of effectiveness, Effectiveness Index was computed by using the following formula.

$$\text{Effectiveness Index (EI)} = \frac{\text{Total Scores obtained}}{\text{Obtainable scores}} \times 100$$

The participants were further categorized into Less Effective, Moderately Effective, Highly Effective on mean and standard deviation.

Results And Discussion:-

Perceived Effectiveness Index (EI) of the distance learning courses

The perceived effectiveness of distance learning courses was measured on the basis of 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. The results showed that out of the 8 parameters listed, the respondents scored well on Effectiveness index for parameters in the order- Resource person expertise (EI=92), Contact lectures (EI=87), New learnings gained (EI=82), Course content (EI=80), Course Objectives achieved (EI=76) and Communication pattern (EI=72). The EI scores were observed to be comparatively less for the parameters Exposure visits (EI=58), and Course Duration (EI=29).

The results showed that the course was developed as per the needs and interests of those aspiring to learn basic Knowledge and skills. However, there is a need to focus on skills oriented aspects with complete involvement of the

respondents and make learning more permanent. As majority expressed less satisfaction over course duration, possibility for including video lectures/Flipped classes could be explored for more interaction and learning.

Table- 1a:- Parameters of Effectiveness of the distance learning courses.

S.No	Parameters of Effectiveness	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
		f	%	f	%	f	%	f	%	f	%
	Course Content										
1.	Course content is designed as per course outline	79	39.50	81	40.50	10	5.00	25	12.50	5	2.50
2.	Course outline is designed as per course objectives	88	44.00	72	36.00	5	2.50	28	14.00	7	3.50
3.	All Fundamentals are taught	124	62.00	61	30.50	5	2.50	10	5.00	-	-
4.	Equal weightage to theory and Practical	50	25.00	91	45.50	4	2.00	34	17.00	21	10.50
5.	Content logically divided into chapters	111	55.50	82	41.00	-	-	7	3.50	-	-
6.	Question bank provided in the material	179	89.50	21	10.50	-	-	-	-	-	-
7.	Photographs given at suitable places	62	31.00	100	50.00	-	-	27	13.50	11	5.50
	Contact Lectures										
8.	Classes scheduled as per course content	28	14.00	62	31.00	21	10.50	54	27.00	35	17.50
9.	Lectures on all important aspects of the course have been covered.	21	10.50	66	33.00	24	12.00	31	15.50	58	29.00
10	Lectures conducted as per schedule and are time bound	141	70.50	32	16.00	-	-	5	2.50	22	11.00
11	Cover both theoretical and practical aspects.	29	14.50	82	41.00	17	8.50	40	20.00	32	16.00
12	Lectures pertaining to course syllabus only are provided	111	55.50	77	38.50	-	-	9	4.50	3	1.50
	Resource Faculty										
13	Faculty with expertise have given lectures	152	76.00	48	24.00	-	-	-	-	-	-
14	Resource persons have rich practical experience	121	60.50	66	33.00	4	2.00	9	4.50	-	-
15	Experts have good communication skills	82	41.00	88	44.00	9	4.50	21	10.50	-	-
16	Time management in classes is good	70	35.00	72	36.00	-	-	31	15.50	-	-

17	Adequate scope for interactions	142	71.00	42	21.00	-	-	16	8.00	-	-
18	Doubts well clarified	140	70.00	56	28.00	-	-	4	2.00	-	-
19	Faculty/coordinators available after contact hours	31	15.50	82	41.00	19	9.50	57	28.50	-	-
20	Audio visuals adequately used	11	5.50	42	21.00	29	14.50	51	25.50	-	-
	Course Duration										
21	Three months duration is adequate	21	10.50	29	14.50	9	4.50	40	20.00	101	50.50
22	One contact session per month is adequate	14	7.00	12	6.00	11	5.50	52	26.00	111	55.50
23	Two classes per contact session is adequate	84	42.00	81	40.50	-	-	9	4.50	26	13.00
24	Separate contact session for Examination is provided	6	3.00	14	7.00	26	13.00	124	62.00	30	15.00
	Pattern of Communication										
25	Wide publicity for the course is given	32	16.00	101	50.50	10	5.00	28	14.00	29	14.50
26	Timely information on contact classes schedule	11	5.50	156	78.00	-	-	24	12.00	9	4.50
27	Provide Advance Information about new courses	6	3.00	92	46.00	21	10.50	48	24.00	33	16.50
28	Any deviations from course are informed	111	55.50	82	41.00	-	-	7	3.50	-	-
29	Course coordinators available over phone	56	28.00	84	42.00	14	7.00	30	15.00	16	8.00
	Exposure visits / Practical classes										
30	Field visits are significant to the course	41	20.50	111	55.50	7	3.50	30	15.00	11	5.50
31	Visits are well planned and coordinated	102	51.00	71	35.50	-	-	27	13.50	-	-
32	Scope for hands on experience is adequate	26	13.50	78	39.00	9	4.50	51	25.50	36	18.00
33	Personal attention for skill development	22	11.00	61	30.50	17	8.50	76	38.00	24	12.00
34	Successful models and demonstrations visited	41	20.50	72	36.00	5	2.50	71	35.50	11	5.50
35	Field visits are conducted as planned	91	45.50	84	42.00	-	-	21	10.50	4	2.00

	New Learnings gained										
36	Additional information beyond syllabus provided	39	19.50	98	49.00	11	5.50	33	16.50	19	9.50
37	Information on new technologies(varieties, practices, methodologies) is provided.	27	13.50	97	48.50	-	-	62	31.00	14	7.00
38	Cross interaction leads to new learnings.	111	55.50	79	39.50	10	5.00	-	-	-	-
39	New learnings very useful in practice	84	42.00	96	48.00	9	4.50	11	5.50	-	-
40	Additional information (booklets , pamphlets, brochures etc) given when necessary	6	3.00	46	23.00	-	-	104	52.00	44	22.00
	Course Objectives										
41	Gain in Knowledge	52	26.00	112	56.00	15	7.50	21	10.50	-	-
42	Gain in skill	27	13.50	82	41.00	18	9.00	52	26.00	21	10.50
43	Equal Opportunity for all	62	31.00	101	50.50	12	6.00	15	7.50	10	5.00
44	Wider reach.	44	22.00	97	48.50	28	14.00	22	11.00	9	4.50
45	Certification useful for career opportunities	31	15.50	91	45.50	12	6.00	48	24.00	18	9.00

1b. Effectiveness index of the Distance learning courses

The index of effectiveness was computed using eight parameters of distance learning courses.

Table 2 b:- Rank order of Effectiveness index of parameters of distance learning courses.

S.No	Parameter	Effectiveness index	Mean	Rank order
1.	Course content	80	3.89	4
2.	Contact lectures	87	4.10	2
3.	Resource faculty expertise	92	4.40	1
4.	Course Duration	29	1.44	8
5.	Communication pattern	72	3.50	6
6.	Exposure visits/Practicals	58	2.88	7
7.	New Learnings gained	82	3.90	3
8.	Objectives achieved	76	3.69	5

Effectiveness index ranked first in case of Resource faculty expertise (EI = 92) with mean score 4.40 because renowned scientists of University, experienced farmers, terrace garden consultants, Organic Certification experts, Organic input dealers, Small scale Entrepreneurs have been identified as resource persons. This was followed by Course contact lectures (EI = 87) with mean score 4.10, New learnings gained (EI = 82) with mean score 3.90 and Course contact lectures (EI = 80) with mean score 3.89, Course objectives achieved (EI = 76) with mean score 3.69 and Communication pattern (EI = 72) with mean score 3.50. Owing to planned design and execution of the course covering all fundamentals with equal emphasis on theory and practicals the respondents scored well on most of the parameters. Besides, ODLC is in continuous communication with its participants

regarding minute details of course till issue of certificates to eligible candidates. Post course follow up is also being taken up to improve the courses.

The Effectiveness score was comparatively less for two parameters i.e., Exposure visits/Practicals (EI = 58) with mean score 2.88 and Course Duration (EI = 29) with mean score 1.44. Though exposure visits to model units, established farms, Demonstrations, FPOs, and farmer interactions are conducted, the participants are seeking hands on experience for establishing small scale units. This could be taken up in future for skill-oriented courses with increased duration and more practical sessions than theory. (Spandana, 2016)

1c. Overall Perceived Effectiveness of certificate courses.

It is observed from the table that 67.50 percent of the respondents who have completed the distance learning courses were having high level of perceived effectiveness about the two distance learning courses while 23.50 percent were having medium level of perceived effectiveness of the courses and a meagre 9 percent perceived the courses to be less effective. The result is in agreement with that of Filiz and Mustafa (2012).

Table 1c:- Overall Perceived Effectiveness index scores of the respondents. N=200.

Category	Overall perceived Effectiveness	
	Frequency	Percentage
Less Effective (<70)	18	9.00
Effective (71-142)	47	23.50
Highly Effective(>142)	135	67.50

The findings implied that the respondents expressed positivity towards the course content, lectures, faculty and conduct of the course but have expressed to have more practical exposure in establishing small balcony gardens, Vermicomposting, organic mixtures and formulations, Home composting etc. which was taught during the course but expressed that they need more practical approach to start small enterprise units.

Conclusion:-

Distance education is being recognized as a powerful medium for education and is becoming widely used in universities and institutions making education more personalized and affordable. The recent technological advancements such as ICTs paved way for providing individualized attention and communication with the incorporation of ICT channels through online courses and MOOCs. The study indicated the respondents showed a positive perception regarding the effectiveness of courses and thus indicating many are aspiring for education through distance medium. Hence there is scope for the University to extend its wings and make agricultural education reach as many as possible through this medium. In future, incorporation of ICTs can make this technology more affordable and sustainable. Besides, introduction of Skill oriented courses will help many aspirants to seek Self-employment through entrepreneurship.

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