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Distance Training On Livestock Farming – Barriers and Strategies

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ABSTRACT

A study was conducted to assess the barriers perceived by the learners in distance mode and to suggest the strategies for effective delivery of knowledge and skills to the learners, based on the data collected from 100 respondents randomly selected from each of 221 and 135 learners of dairy and goat farming courses of TANUVAS. The constraints perceived by the respondents of dairy and goat farming distance courses exhibited an overall mean score of 1.5 and 1.6 respectively, both ranging from 'least constraint' to 'no constraint'. Lack of guidance from the local coordinators and lack of collaborations / co-operations with learning centers was perceived as constraint to more severe constraint. The factor - improper tracking of learners achievements – was given the score of 3.9 (by dairy course learners) and 4.0 (by goat course learners), implying it to be a severe constraint. The overall and individual constraints' scores in social and economic barriers ranged between 1 and 2, as they were perceived not to be the constraints by the learners in both course categories. A strategic 5-4-3 spiral model (5 steps in preparatory stage, 4 in implementation stage and 3 in evaluation stage) is suggested for ensuring effectiveness in the conduct of distance education courses in livestock farming.

Keywords: *Distance training, Livestock farming, Barriers, Strategies*

1. INTRODUCTION

Distance education is emerging as a suitable platform to transfer knowledge and skill and to build the entrepreneurial capacity among livestock farmers, as it can deal with relatively a large number of learners than traditional system. In view of this, the Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) has started offering two correspondence courses viz., dairy and goat farming since 1996. It has also established a separate Directorate of Distance Education for such programmes, in the year 2011 and is at present offering 11 courses on livestock farming for the benefit of farming community. However, Rahman et al. (2005) found earlier that the completion rate of vocational programme in livestock and poultry through distance mode was 47%, with a high dropout rate.

Poor quality lessons, less attention to assignments, heavy reliance on printed materials, non-use of communication technologies, delay in dispatch of lessons and less laboratory support have been reported to be common defects of distance education programmes (Sathyanarayan, 1992) and lack of face to face interaction and absence of close monitoring of the learners' performance were often perceived to be the barriers in distance education system (Karim and Ahmmod, 2002). As understanding the barriers in distance education would help to identify the weaknesses and problems faced by the participants in distance education to help to improve the quality of distance education courses in future, this study was conducted to assess the barriers as perceived by the learners in distance mode and to suggest the strategies for effective delivery of knowledge and skills to the learners.

2. MATERIALS AND METHODS

The participants who underwent distance education courses on dairy and goat farming conducted by TANUVAS during the period from 2000-01 to 2004-05 were the respondents for the study. The duration of the course on dairying was six months, while that of goat farming was three months. A total of 221 and 135 participants completed the distance course on dairy farming and goat farming, respectively, during the above period. Among them, 100 respondents under each course on dairy and goat farming were selected using proportionate random sampling method in proportion to the number of participants who successfully completed the course from each year as shown in Table 1.

Table 1: Distribution of respondents in dairy and goat farming courses

Year	No. of candidates enrolled		No. completed		No. selected for the study	
	Dairy	Goat	Dairy	Goat	Dairy	Goat
2000-2001	98	67	47	41	21	30
2001-2002	80	45	48	21	22	16
2002-2003	111	65	64	34	29	25
2003-2004	61	32	28	18	13	13
2004-2005	61	37	34	21	15	16
Total	411	246	221	135	100	100

a. Data and Analysis

Interview method was followed for data collection. An interview schedule incorporating items pertaining to objective of the study was constructed, pre-tested and finalized for data collection. The data were collected during the period 2007-09 and were coded, tabulated and necessary analytical techniques were used.

b. Barriers In Distance Education

Barriers in distance education are the constraints faced by the participants while undergoing the distance education programme.

Twenty-seven barriers in distance education were identified, in consultation with the distance education content providers, course teachers, learners and literature, under four broad headings - technical, support and infrastructure barriers, evaluation barriers, social barriers and economic barriers. The respondents were asked to state the level of constraint they perceived on a five point continuum scale ranging from most severe constraint to no constraint with a score of 5 (Most severe constraint), 4 (Severe constraint), 3 (Constraint), 2 (Least constraint) and 1 (No constraint), respectively as below:

Technical, support and infrastructure barriers	Lack of guidance from local coordinators
	Lack of collaborations / co-operation at learning centers
	Lack of library facilities
	Lack of internet facilities
	Improper operation of distance education cell
	Delayed supply of print materials
	Poor outsourcing of experts
	Lack of infrastructure to conduct practical sessions
	Lack of involvement of subject matter specialists
	Lack of infrastructure to conduct contact classes
	Complex and difficult time schedule
	Complex and difficult course contents to read
Evaluation barriers	Improper tracking of learners achievement
	Lack of proper evaluation system
	Lack of recognized certification based on evaluations
	Conduct of face to face feedback session with tutors
	Improper planning of assignment schedule
	Delayed feedback evaluation
Social barriers	Lack of learners interaction /communication
	Unable to adjust to distance education programme
	Fear to attend distance education programme
	Lack of learners relationships and participants care
	Lack of personal care from distance education tutors
Economic barriers	High course fee
	High contact class expenditure
	Too much expenditure towards the course
	No higher earning if course is through distance education

The score given by each respondent for each item was summed up to arrive at the total score and mean worked out. The mean score was then ranked. Barriers with a score of above four were considered to be the most severe constraint, while that of below two was considered as the least severe constraint.

3. RESULTS AND DISCUSSION

The constraints perceived by the respondents of dairy and goat farming distance courses exhibited an overall mean barrier score of 1.5 and 1.6 respectively, both ranging from 'least constraint' to 'no constraint' (Table 2), indicating that both the courses are in general had little barriers in delivering the knowledge. Again, with regard to the technical, support and infrastructure barriers, the respondents of both dairy and goat farming courses perceived only least constraint to no constraint (1.6). However, the respondents had found the lack of guidance from the local coordinators and lack of collaborations / co-operations with learning centers as constraint to more severe constraint. This means that the distance education cell offering the courses need to strengthen in the areas of local co-ordination for better monitoring and interaction to make the courses more successful.

In terms of evaluation barriers, the scores given by the respondents of dairy farming (1.7) and goat farming (2.0) courses indicated them to be almost a least constraint. However, the barrier - improper tracking of learners achievements – was given the score of 3.9 (by dairy course learners) and 4.0 (by goat course learners), implying it to be a severe constraint to the respondents, which leads to convey that the system evaluating learners' accomplishments is weak and needs strengthening. As far as the social and economic barriers, both the overall and individual constraints' scores ranged between 1 and 2, as they were perceived not to be the constraints by the learners in both the course categories. Hence, it is required that the distance education cell needs to remove the constraints felt by the learners by providing a regular support system with suitable remedial measures, to eventually assure overall development of the learners through effective delivery of knowledge and skills.

Rasheed (2007) also found a loss of motivation due to lack of face-to-face contact with teachers and peers and lack of faculty support to successful distance learning, while Fozdar et al. (2007) reported the major factors for withdrawal to be absence of interaction with fellow students and lack of time due to job and family responsibilities.

Table 2: Barriers in dairy and goat farming distance education programme

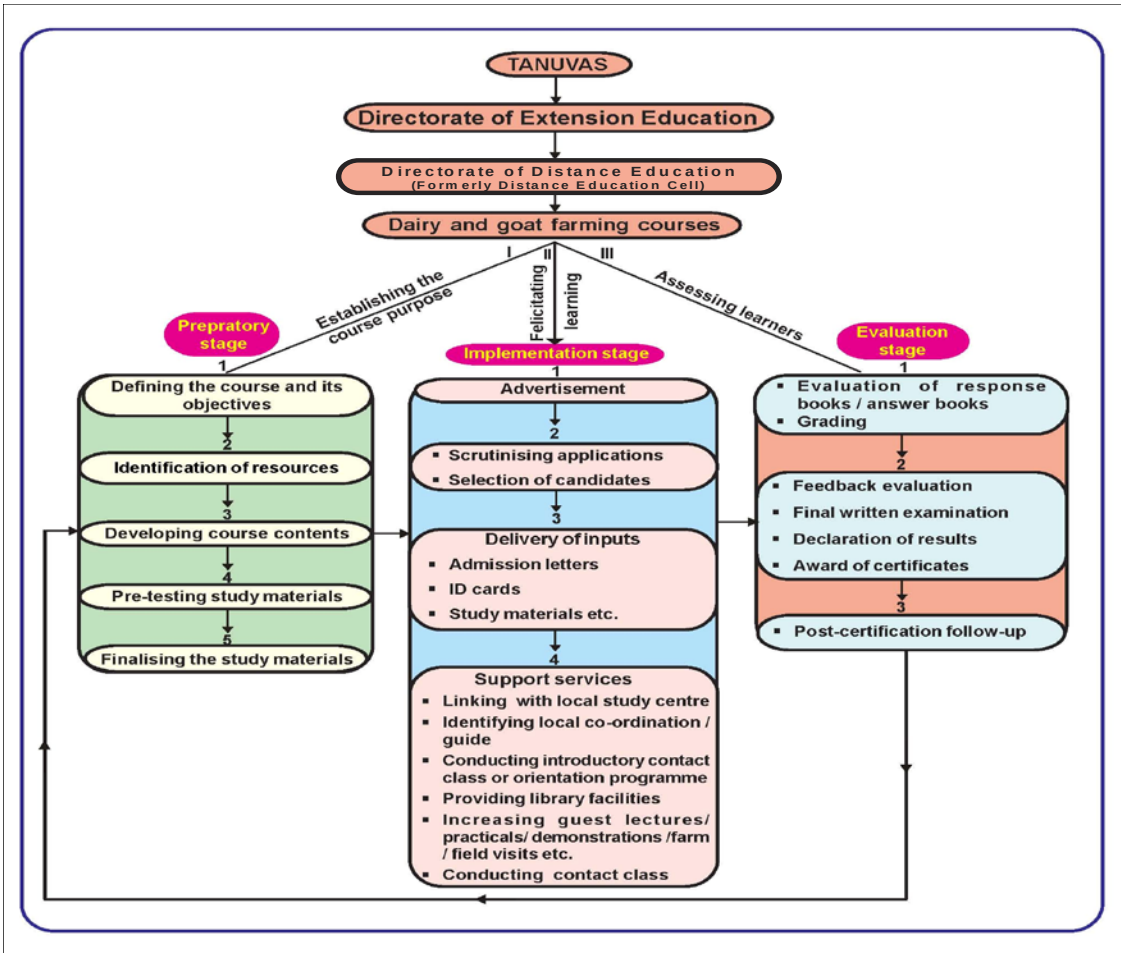
Barrier category	Mean barrier score	
	Dairy farming course	Goat farming course
I Technical expertise, support and infrastructure barriers		
Lack of guidance from local co-ordinators	3.5	3.6
Lack of collaborations / co-operation with learning centres	3.4	3.5
Lack of library facilities	1.4	1.7
Lack of internet facilities	1.4	1.6
Improper operation of distance education cell	1.2	1.2
Delayed supply of print materials	1.2	1.2
Poor outsourcing of experts	1.2	1.3
Lack of infrastructure to conduct practical sessions	1.1	1.1
Lack of involvement of subject matter specialists	1.1	1.1
Lack of infrastructure to conduct contact classes	1.1	1.1
Complex and difficult time schedule	1.1	1.1
Complex and difficult course contents to read	1.1	1.1
Mean	**1.6**	**1.6**
II Evaluation barriers		
Improper tracking of learners achievement	3.9	4.0
Lack of proper evaluation system	1.7	1.2
Lack of recognized certification based on evaluations	1.7	1.2
Conduct of face to face feedback session with tutors	1.6	1.3
Improper planning of assignment schedule	1.5	1.2
Delayed feedback evaluation	1.5	1.2
Mean	**1.7**	**2.0**
III Social barriers		
Lack of learners interaction /communication	1.6	1.3
Unable to adjust to distance education programme	1.6	1.3
Fear to attend distance education programme	1.6	1.5

Barrier category	Mean barrier score	
	Dairy farming course	Goat farming course
Lack of learners relationships and participants care	1.5	1.3
Lack of personal care from distance education tutors	1.5	1.3
Mean	**1.3**	**1.5**
IV Economic barriers		
High course fee	1.3	1.3
High contact class expenditure	1.3	1.3
Too much expenditure towards the course	1.3	1.3
Does not provide high earning if course was undertaken through distance education	1.2	1.2
Mean	**1.3**	**1.3**
Overall mean	**1.5**	**1.6**

a. Strategy for effective implementation of distance education courses on livestock farming

The significance of drawing strategy is to provide a direction and scope for a long-term growth, leading to advantages within a challenging environment in order to meet the requirements and to fulfill the expectations of the stakeholders. From the findings of the study and the existing procedure followed by the distance education cell, a strategic 5-4-3 spiral model (Figure 1) is suggested for ensuring effectiveness in the conduct of distance education courses in livestock farming for the benefit of learners. The suggested strategic 5-4-3 spiral model for distance education in livestock farming is: five steps in initial preparatory stage, four steps in second implementation stage that facilitate learning and three steps in final evaluation stage.

Fig 1: Strategic 5-4-3 spiral model of distance education programme for livestock farmers



This proposed strategy is drawn based on the support expected, barriers identified and perception revealed by the respondents of dairy and goat farming correspondence courses. The model can be expected to achieve the objectives of the distance education institution concerned by ensuring quality learning environment and by removing the negative feelings of the learners. This can further help to provide sufficient skills to the learner through the support and flexible study environment leading to field applications for adoption on the job in an effective and efficient way.

4. CONCLUSIONS

Any learning strategy without facilities to develop practical skills makes the learning redundant. The study showed improper tracking of learners as a constraint and hence, suitable strategies are needed to involve coordinators to overcome the constraint so as to benefit distance learners. Considering the growth of technology, the university may develop e-courses / multimedia course for livestock farmers with effective course design and pedagogy to enable learners visualize problems in complex subjects like veterinary and animal husbandry easy to understand.

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