

Skills for Development: Present Status of Vocational Programmes in Livestock and Fisheries at Bangladesh Open University (BOU)

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INTRODUCTION

Bangladesh is an agriculture-based developing country, holding approximately 142 million populations in 147,570 square kilometres with a 1.47% annual growth rate. The country is striving hard to attain sustainable economic development and thereby improving quality of life (Mohiuddin 2002). Among different sectors of agriculture, livestock directly contribute approximately 6.5% of the country's Gross Domestic Product; however, indirect contribution is estimated at 13.2% (Ahmed 2003; Huque 1993). Out of the country's total population around 40 millions are estimated to be within the age group of 15–30 years which are considered as youth. It has been found that after passing Higher Secondary Certificate, only 4% students pursue higher education in Bangladesh as the public and private universities combined do not have adequate seats to accommodate them (Anonymous 2007). The importance of technical and vocational education for poverty alleviation, self-employment and economic freedom is a must for the economic development of Bangladesh (Bashar 2003). Vocational education provides employment-oriented skills to the unemployed youth force. Currently more than 300 vocational training centres under different Ministries are providing training programmes in different field including livestock and poultry (Anonymous 2003). It is very expensive to set up and maintain more vocational education institutes in the present economic context of Bangladesh (Anonymous 1997). These conventional training institutes offer basic and applied training on livestock and poultry, but they do not have standard course curricula and academic affiliation with any academic institutes like university or board. Therefore, with these training learners are not able to enrol in any advanced programmes offered by other academic institutes to increase their knowledge and skills. Current strength of conventional institutions satisfies only a few portions of the huge demand; and people of all ages, locations cannot be trained up with this system. Therefore, open and distance learning (ODL) is the choice of delivery system to create skilled craftsman of different ages at a large number for economic development of Bangladesh.

Considering the above facts, Bangladesh Open University (BOU) has launched 'Certificate in Livestock and Poultry (CLP)' and 'Certificate in Psiculture and Fish Processing (CPFP)' programmes through its School of Agriculture and Rural Development (SARD) from January 1999. These programmes have been designed to provide essential know how, skills and professional knowledge especially for young people interested to generate self-employment through livestock, poultry, fish and shrimp farming. Both the programmes are 6 months long and comprised of 15-16 credit hours. Theoretical and practical lessons comprise approximately 60 and 40%, respectively. There are two intakes per year and learners have to complete the programme within 2 years. Any secondary school certificate holder from any discipline can enrol this programme. The school follows strict regulations during development of curriculum-based modular printed course books, radio and TV programmes, enrolment, tutoring and assessment of the learners. In several studies, it has been found that BOU education is flexible, cost-effective and comparable standard that of the conventional universities. However, skepticism is remained whether current curricula, delivery and evaluation methods are enough to impart knowledge and practical skills to learners attending courses in livestock, poultry and fisheries those have substantial practical works. Not much research has been carried out to find out real problems and means for their solution so far. Therefore, the aim of the present study was to find out the present status of CLP and CPFP programmes, problems and suggested measures to improve their status.

METHODOLOGY

The samples of this study were current learners, tutors and employers of these two programmes. The structured questionnaires were administered on significant number of learners in face-to-face situation in different study centres (SCs). A number of questions were set on different aspects such as quality of course materials, skill development, duration of the programme, evaluation process, reasons for dropouts, tutoring experiences etc. A number of tutors were also interviewed. In these cases, one to one interview and focus group discussion was done. Questions were also developed for these groups and all the conversations were recorded. The recorded tapes were analysed later on. The potential clientele of this programme, therefore, included significant number of learners from rural areas, particularly unemployed youth (21–30 years) who must continue to work to support their families. A total of 92 questionnaires (75 for CLP and 17 for CPFP) were provided to the learners and collected in different SCs. A total of 12 tutors from different SCs were participated in 'tutor's focus group discussion'. All the data were analysed using simple calculations like average, per cent etc.

RESULTS AND DISCUSSIONS

Learners' Enrolment

Learners' enrolment on the basis of origin, age and sex: Percentage of learners enrolled in semester 101 (January–June, 2010) are presented in Table 1. In both the programmes, rural learners enrolled at a higher rate than urban. When considering age, participation of 21–30 years aged learners were highest followed by 31–40; whereas <20 and 41–50 years aged were nearly absent. Targeted categories for the present study was rural youth (21–30 years) of either sex who were unemployed or self-employed. In respect to learners' characteristics like origin and age targets have been achieved as nearly 90% rural and 59% (CLP) to 88% (CPFP) targeted age categories were enrolled. However, male/female ratio showed prevalence of males (>94%) over females. This may be due to various physical, social and circumstantial constraints of rural female to enrol in any academic institutions.

Table 1: Percentage of CLP & CPFP learners enrolled from different categories

Programme	% Rural	% Urban	% Age categories (years)				% Male	% Female
			<20	21–30	31–40	41–50		
CLP	89.3	10.7	5.3	58.7	30.7	5.3	98.7	1.3
CPFP	88.2	11.8	0.0	88.2	11.8	0.0	94.1	5.9

Learners' employment status: Employment status of the learners enrolled in semester 101 has been shown in Table 2. In both the programmes, a large number of learners came from unemployed followed by employed and business categories while least were from self-employed or farmer categories. Therefore, it can be considered that target has been achieved as unemployed constituted 35 to 65% of the total learners, irrespective of the programme. The result was higher than the initial stages of these programmes (Rahman et al. 2005; Shah et al. 2005).

Table 2: Percentage of learners in different employment categories

Programme	Unemployed (%)	Self-employed (%)	Employed (%)	Farmer (%)	Businessman (%)
CLP	34.7	9.3	20.0	8.0	28.0
CPFP	64.7	0.0	23.5	0.0	11.8

Income groups: Learners' enrolled in semester 101 from different income groups are depicted in Table 3. A large portion of the learners came from <10,000 Taka (Tk.) Group followed by No Income and >50,000 Tk Groups.

Table 3: Percentage of learners in different income groups (on the basis of yearly income)

Programme	No Income (%)	<10,000 (%)	10,001-20,000 (%)	20,001-30,000 (%)	30,001-40,000 (%)	>50,000 (%)
CLP	22.7	29.3	14.7	9.3	10.7	13.3

CPFP	17.7	41.2	5.9	0.0	11.7	23.5
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Learners' enrolment on the basis of their expectations: Learners' enrolment on the basis of their expectation from these programmes for the semester 101 is presented in Tables 4a and 4b. Self-employed and unemployed learners were asked why they enrolled in CLP or CPFP programme. It was found that most the CLP learners' expectation was to become a rural veterinary worker followed by integrated farmer and jobs & others. Whereas, most of the CPFP student wanted to become fish farmer followed by jobs & others and integrated farmer.

Table 4a: Expectation of enrolled CLP Learners

Rural Veterinary Worker (%)	Poultry Farming (%)	Dairy Farming (%)	Beef Fattening (%)	Integrated Farming (%)	Jobs & Others (%)
34.7	8.0	9.3	10.7	22.7	14.6

Table 4b: Expectation of enrolled CPFP Learners

Fish Farming (%)	Shrimp Farming (%)	Integrated Farming (%)	Jobs & Others (%)
52.9	5.9	11.8	29.4

Quality Management and Relevance

Efficiency of delivery mechanism: Learners' response on quality of delivery mechanism is presented in Table 5. It is found that most of the learners rated delivery mechanism as good followed by moderate, excellent and poor irrespective of the programmes.

Appropriateness of learning materials: Learners' response on the appropriateness of learning materials is presented in Table 5. Most of the learner rated print materials as good followed by excellent, poor and moderate. However, in case of TV/radio programmes 27-35% learner did not responded indicating that they did not watched TV or listened radio. This may be due to various reasons such as, lack of TV/radio facilities, time mismatch or other causes. Those who watched TV or listened radio rated TV/radio programmes as good followed by excellent, moderate and poor.

Quality of student support service: Learners' response on the quality of student support service (SSS) is depicted in Table 5. It is evident that about 18-20% learner did not respond due to unknown reason. Most striking feature of this study is that no learner rated the services of SSS of BOU as excellent. About one third of the learners rated SSS service as poor followed by moderate and least as good. Therefore, this might be a drawback for these skill development programmes and need to investigate and find out the causes. SSS service of BOU might also be improved.

Table 5: Learners' response rate (%) on different aspects of programme delivery

Parameter	Programme	Excellent	Good	Moderate	Poor	No response
Efficiency of delivery mechanism	CLP	14.7	44.0	24.0	14.7	2.6
	CPFP	17.6	47.1	29.4	5.9	0
Appropriateness of learning materials						
- Print	CLP	22.7	54.7	5.3	17.3	0
	CPFP	17.6	58.8	11.8	11.8	0
- TV/Radio programmes	CLP	13.3	33.34	13.3	13.3	26.7
	CPFP	11.8	41.1	5.9	5.9	35.3
Student support service	CLP	0	20.0	26.7	33.3	20.0
	CPFP	0	17.6	23.5	41.2	17.6

Match with learners' time, language, context and culture: Learners did not faced any problems regarding language, context and culture as all the course books were written in Bangla, the mother tongue (see Fig. 1) and all the learners came from same culture. From Table 6 it is evident that most of the learner rated the number of courses and duration of the programmes as adequate.



Fig. 1: Course books of CLP and CPFP programmes

Table 6: Responses on learners' time and number of courses

Parameter	Programme	Be increased	Adequate	Be decreased
Programme duration	CLP	29.3%	52.0%	18.7%
	CPFP	17.5%	70.7%	11.8%
Number of courses		More than required	Adequate	Less than required
	CLP	18.7%	61.3%	20.0%
	CPFP	11.8%	67.6%	11.8%

Learners Evaluation Results

Completion and dropout rates from January 2006 to December 2009 are presented in Table 7. About 72% and 91% learners successfully completed the CLP and CPFP programmes, respectively. The results of the present study are much higher than initial years (January 1999 to December 2002) (Rahman et al. 2005; Shah et al. 2005). The student dropout rates were reduced about 50% of the initial stage for both the programmes (Rahman et al. 2005; Shah et al. 2005).

Table 7: Semester-wise completion and dropout rates

Semester (Year)	Total no. of learner enrolled		No. of learner appeared in the semester-end exam		Completion rate (%)		Dropout rate (%)	
	CLP	CPFP	CLP	CPFP	CLP	CPFP	CLP	CPFP
061 (2006)	92	23	72	16	84.7	87.5	21.7	30.4
062 (2006)	73	30	50	21	80.0	100.0	31.5	30.0
071 (2007)	113	42	104	19	51.9	84.2	8.0	54.8
072 (2007)	117	35	109	29	59.6	89.7	6.8	17.1
081 (2008)	81	26	79	20	70.9	80.0	2.5	23.1
082 (2008)	89	42	60	27	70.0	96.3	32.6	35.7
091 (2009)	84	20	76	20	84.2	100.0	7.1	0.0
092 (2009)	113	20	95	18	73.7	88.9	15.9	10.0
Total	762	238	645	170	71.9	90.8	18.8	25.1

Programme Effectiveness

The main objective to launch CLP and CPFP programmes was primarily to cater for those learners who were excluded from the conventional education system for a variety of reasons. The potential clientele of these programmes were rural youth who must continue to work for supporting their families. These programmes aimed to create a group of skilled manpower in livestock, poultry and fisheries sector that would ultimately play a significant role to enrich agricultural economy of Bangladesh by creating self-employment.

Results of the present study clearly demonstrated that programme effectiveness was positively correlated with its goal as evidenced by a large number of participation of rural unemployed youth. However, participation of female learners was very low compared to males. This might be due to various reasons such as financial constraints, distance of SCs from their locality, less or no time as busy with family.

In the present study the completion rates were much higher than the previous study (Rahman et al. 2005; Shah et al. 2005). Dropout rates were also decreased than initial stage. However, learner enrolment is still steady and no new centres were introduced. Number of centres was also decreased, especially for CPFP programme which is now reduced to only one centre. This is mainly due to the learners' financial constraint, lack of programme recognition by the different loan granting authorities or banks, lack of free time, as they were busy with other sources of income generation, over standard courses, toughness of examination system etc.

A three months long similar vocational programme in livestock, poultry and fisheries is offering by the Ministry of Youth and Sports through its Youth Training Centres (YTCs) (Anonymous 2002). Although quality of that programme was low in comparison to CLP and CPFP programmes of BOU. However, all the learner of YTCs receives a scholarship of 500 Tk. per month and they do not need to pay for course fee and lodging. Although they have no academic affiliation with any academic intuitions, they are getting bank loan on easy terms and conditions. These features make the learner more attracted to take training from YTCs rather than BOU although these programmes were of good quality. It was evidenced by the participation of large number of YTC-trained (n=26) and other government institutions-trained (n=9) learners in the CLP and CPFP programmes.

Skill Transfer through CLP and CPFP Programmes

Tutors' view: Theoretical knowledge can be transferred easily. Practical facilities, and number & duration of practical classes were inadequate. This was a major constrain for transferring practical skills. There were no applied facilities, e.g. field and farm visits. BOU provided no financial support for practical classes. There was a great deal of variations in tutors' perception of ODL system among different SCs. The tutors commented that practical facilities, number and duration of practical classes should be increased. Practical lessons should be made field-oriented. Attendance in the practical classes should be made compulsory. In addition to printed materials videos should be supplied in SCs or nearby COs. Arrangement for field and farm visit should be made. Activities of SSS and its wings like RRCs and COs should be improved. Arrangement of tutors training workshops on ODL system should be made regularly.

Employers' view: Quality of the course materials was good, so learners were able to gather knowledge and skill in less time than the conventional delivery system. As most of the learners were working at the field level, they could easily justify their work and if encountered any problems could consult with their respective tutors. They had a good chance for piloting their skills and could easily disseminate acquired knowledge and skills to the farmers as they were working with them. As these programmes were very much applied, therefore, it was difficult to achieve practical skills through ODL system properly. The learners had less exposure on practical due to time constraints, institutional facilities and flexibility of attendance. Practical classes could be made more effective by supplementing videos and the learners' attendance compulsory. Arrangements could also be made for field-based practical demonstrations.

CONCLUSIONS AND SUGGESTIONS

In conclusion, both the programmes were found effective and appropriate for skill development for self-employment and poverty alleviation of the target group. It was also found that learners drop out rate was decreased and completion rate was increased. However, measures should be taken to increase the number of SCs as well as learner. Generally the curricula, choice of media of delivery and methods for assessment were found acceptable in current socio-economic context of Bangladesh but there are ample scopes for further improvement. The results of this study should have important practical implications in policy decision and further research. Based on opinions from learners and tutors, innovative approaches, such as revision of curricula, supply of audio-visual materials to the tutorial centres, increase facilities for practical sessions, introduce asynchronous electronic technologies (internet, e-mail and mobile phone) for rapid dissemination of information on admission, tutorial session

and examination are suggested. Additionally, liaison with government and/or other non-governmental organizations should be maintained so that proper arrangements of loans for learners and entrepreneurship development can be made.

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