

Can Recruitment, Success, Gender Equality and Retention Rates be Enhanced in Vocational Fisheries Education with a Shift in Delivery Mode to ODL

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ABSTRACT

Bangladesh Open University has been offering a certificate programme on fisheries namely Certificate in Pisciculture and Fish Processing through its School of Agriculture and Rural Development from January 1998, with the aim of creating self-employment and poverty alleviation. The aim of this study was to find out the problems and prospects of vocational education in fisheries being effectively delivered through open and distance mode. A structured questionnaire was prepared to collect data on different aspects of the programme. The questionnaires were administered on a significant number of learners in face-to-face situation and focus group discussions were also carried out with the tutors. A number of dropouts, successful learners and their employers were also interviewed. The potential clientele of this programme, therefore, included significant numbers of learners from rural areas, particularly youth and distressed women who must continue to work to support their families. However, participation of female students was very low in comparison to the males. The completion rate of the programme was 63.6%. On the other hand, dropout rate was very high (25%). Results of this study revealed that the programme was effective and appropriate in terms of skill development for self-employment and poverty alleviation although a significant number of learners dropped out from the programme for a variety of reasons. Therefore, measures should be taken to improve and develop a sustainable ODL delivery mechanism so that learner becomes attracted to the programme.

Keywords: Fisheries, Skill development, Learners achievement, Vocational education.

INTRODUCTION

Fisheries are major components of agriculture and firmly integrated into the economic structure of farm and village life of Bangladesh. The fisheries sector directly contribute approximately 4.43% of the country's Gross Domestic Product (GDP), however, the indirect contributions are estimated at 22.21% (Azad, 2012). This sector plays a vital role in the development of rural economy in Bangladesh. Although different conventional training institutes under Ministry of Fisheries and Livestock, and Ministry of Youth and Sports offer 1-3 months basic and applied training programmes on fisheries, they do not have any academic affiliation with universities or education board. Therefore, after completing these training programmes students are not able to enroll in any other academic institutes to upgrade their knowledge and skills. People of different ages and professions are not being able to take these programmes due to lack of time and space. Therefore, an open and distance learning (ODL) approach is the only choice for training a large number of people of heterogeneous age and professional groups, with appropriate academic accreditation. Considering the above facts and positive response in the needs assessment survey, Bangladesh Open University (BOU) has launched a certificate programme on fisheries namely Certificate in Pisciculture and Fish Processing (CPFP) through its School of Agriculture and Rural Development (SARD).

The CPFP programme of BOU is designed to train the unemployed youth force, distressed women and other interested people to create self-employment. It is a 15-credit programme, which comprised of 6 courses including theoretical and practical components. The programme is one semester-long and two intakes per year. The programme is marketed through the university's student support services (SSS) division. The SSS division comprised of 12 regional resource centres (RRCs) and coordinating offices (COs) distributed across the country. The SSS division advertises for student admission and the respective RRCs and COs select and enroll students. The programme is regularly monitored by a programme coordinator that is an academic staff of SARD.

The importance of 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, distressed women, etc. However, it is very expensive to set-up and maintains more vocational institutes in the present economic context

of Bangladesh (Anonymous, 1997). Currently more than 300 vocational training centres under different ministries are providing training programmes in different fields to create skilled craftsman (Mohiuddin, 2002). Although these training centres are located in different areas of the country and provide comprehensive training to the respective target groups, it is very difficult to train a large number of people within a short time with the existing training centres. Besides, people of all ages, in different locations cannot be trained with this conventional system. Therefore, ODL system is the best option to deliver vocational programmes to create a large number of skilled craftsmen of heterogeneous age and professional groups to support the economic development of Bangladesh. The present study was aimed to evaluate the problems and prospects of vocational education in fisheries being effectively delivered through open and distance mode.

METHODOLOGY

The samples of this study were CPF current students, dropouts, successful students, tutors and employers. A structured questionnaire was prepared for the current students to collect data on different aspects of the programme. This questionnaire was first pretested on a very small group of students and then the questionnaire was restructured in accordance with the student's responses. The specific areas covered in the questionnaire were background characteristics of the students, programme presentation, skill development, employment/promotion and programme cost borne by the students.

Focus group discussions were carried out with tutors. A total of ten different 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 dropouts, successful students and their employers were also interviewed. In these cases, one-to-one interview and focus group discussions were made.

A total of 36 questionnaires were provided to the students and collected. A total of 25 tutors were participated in tutor's focus group discussion. It was very difficult to interview dropouts, as they did not come to the TCs although contacted earlier. However, finally 7 dropouts were interviewed at their offices or farms. All the data were analyzed using MS Excel software.

RESULTS AND DISCUSSIONS

Students' Profile

The percentage of students enrolled in the academic year of 2011-2012 from rural/urban areas, male and female, and different age categories are shown in Figure 1. From the figure, it is clear that the targeted group i.e. the rural students enrolled at a higher rate than urban. However, there was no significant difference between the enrolment rate of rural and urban students in the programme. Participation of male students was significantly higher than female. This may be due to various physical, social, religious and circumstantial constraints of rural female to enroll in any academic institutions. Regarding the age categories, participation of the targeted age category i.e. 21-30 years was highest followed by <20, 31-40 and 41-50 years. Targeted groups for this study were rural youth of either sex up to 21-30 years of age who were unemployed or self-employed. In respect of students' characteristics, as for rural/urban and age categories, targets have been significantly achieved as about 55.8% of the rural students and more than 72% of the targeted age categories enrolled.

Employment Status of the Students

Employment status of the students enrolled in the academic year of 2011-2012 has been studied. It was found that a large number of students came from unemployed (47.2%) categories while 41.7% students were employed either in government, NGOs or the private sectors. There were also a few students with business background followed by self-employed. In terms of employment status, it can be considered that target has been achieved as unemployed and self-employed constituted more than 52% of the students. The reason might be skill development for promotion, income generation or advancement of professional knowledge for success in business.

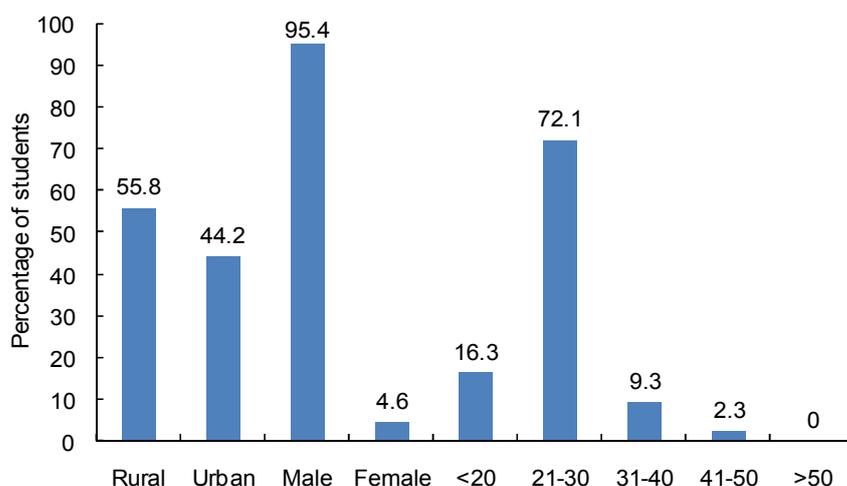


Fig. 1. Percentage of students from rural/urban areas, male and female, and different age categories enrolled in the academic year of 2011-2012.

Actual Achievements

Year-wise student enrolment, completion, failure and dropout rates of the programme from January 2008 to December 2012 are depicted in Table 1. In the year of 2012, it was observed that 63.6% students successfully completed and 11.4% failed, however, dropout rate was as high 25.0%.

Table 1. Year-wise student enrolment, completion, failure and dropout rates of CPFP programme

Year	Total no. of student enrolled	Appeared in the examination	Completion rate (%)	Failure rate (%)	Dropout rate (%)
2008	60	47	70.0	8.3	21.7
2009	48	44	75.0	16.7	8.3
2010	41	33	73.2	7.3	19.5
2011	40	29	57.5	15.0	27.5
2012	44	33	63.6	11.4	25.0

Improvement in Employment Prospects, Incomes and Promotions

The current students' response related to their future employment prospects, improvements in incomes and promotions are shown in Table 2. It was found that employment prospect rates were moderate to good. On the other hand, most of the students rated the improvements in income issue as good followed by moderate and very few rated it less or none. However, most of the students did not response on improvements in promotion possibilities. This may be due to the fact that most of the students were unemployed. Those who were employed rated the promotion response from good to moderate.

Table 2. Student response rate (%) on employment prospects, improvements in incomes and promotions

Parameter	Good	Moderate	Less	None	No response
Employment prospects	44.4	38.9	11.1	5.6	-
Improvements in incomes	52.7	36.1	5.6	5.6	-
Improvements in promotions	13.8	16.7	11.1	5.6	52.8

Efficiency of Delivery Mechanism

Students' response on the quality of delivery mechanism is shown in Table 3. It was observed that most of the students rated delivery mechanism as 'good' followed by 'excellent' and 'moderate'. This suggests a high level of acceptability of the programme by the recipients.

Appropriateness of Learning Materials

It was found from the study that most of the students rated print materials as 'good' followed by 'moderate' and 'excellent' (Table 3). However, in the case of radio/TV programmes, approximately one third of the students did not response, indicating that they did not listen to radio or watch TV. This may be due to various reasons such as, lack of radio/TV facilities, inconvenient broadcasting times, or other causes. Those who listened to the radio or watched TV programmes rated as 'moderate' followed by 'excellent' and 'good'.

Quality of Student Support Service

Students' response on the quality of student support service is depicted in Table 3. It was found that as large as 44.4% of the students rated the students' support service as moderate, 16.7% students were happy with the quality and 5.6% students rated the service as of low quality. However, 33.3% students did not response due to the fact that they did not go to RRCs or COs.

Table 3. Student response rate (%) on different aspects of programme delivery

Parameter	Excellent	Good	Moderate	Low quality	No response
Efficiency of delivery mechanism	27.8	44.4	16.7	11.1	-
Appropriateness of learning materials					
-Print	19.5	47.2	33.3	-	-
-Radio/TV programmes	16.7	11.1	38.9	-	33.3
Student support services	-	16.7	44.4	5.6	33.3

Mechanism and Effectiveness of Quality Management

The main tools for quality assessment for the students of the programme were tutor marked assignment (TMA) and semester-end theoretical and practical examinations. Students were asked, "whether or not TMA is a continuous process of students' quality assessment"? More than 70% answered 'yes'. On the other hand, delay in processing and publishing examination results were serious concerns in all students of BOU. It is identified as one of the major reasons for delay of completion or failure or high dropout rate (Numan et al., 2007).

Match with Learners' Time, Language, Context and Culture

Students did not face any problems regarding language, context and culture as the entire course books were written in *Bangla* and all the students came from the same culture. Besides, their educational qualification was at least SSC level. More than 61% students rated the number of courses were adequate, however, 27% students suggested that the duration of the programme should be increased (Table 4).

Table 4. Students' opinion (%) on programme duration and number of courses

Parameters			
Duration of programme	Be increased	Adequate	Be decreased
	27.8	63.9	8.3
Number of courses	More than required	Adequate	Less than required
	11.1	61.1	27.8

Student Financing

It was found from the study that most of the students meet their expenses e.g. tuition fees, including expenses borne by their parents. In this programme, 61% students were self-financed and 14% students borrowed money to complete the programme. However, only 6% students were financed by their employers and 19% students were financed by other sources. A very small number of students in the current cohort were sponsored by their own organization or company, although the researcher was informed by some NGOs that previously they sponsored a large number of students.

Tutors' View on Skill Transfer

Theoretical knowledge could be transferred easily. Face to face tutorial session was also a means of both theoretical and practical skill transfer. Practical facilities and the number/duration of practical classes were inadequate being a major constraint for transferring practical skills. Little or no financial support for practical classes from BOU was obtained. Practical facilities and number/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, appropriate videos should be supplied in TCs.

Employers' View on Skill Transfer

Quality of the CPFPP programme was good, so students were able to gather quality knowledge and skills without spending much time as required in conventional system. As most of the students were working at the field level, they were able to justify their work and consulted their problems with the respective tutors. The course books gave them opportunities to brainstorm different practical problems, which was very helpful for developing new ideas. As they were working with the farmers at field level, they had a good chance to practice their skills and this way they disseminated acquired knowledge and skills to other farmers. As the programme was very much applied, therefore, it was a bit difficult to achieve practical skills properly through ODL.

Students' View on Skill Transfer

In the questionnaire all students were asked whether the programme could enable the transfer of skills or not. As many as 90% students answered 'yes' and a few answered 'no'. Students were also asked to grade their achievements on gains of overall knowledge and practical skills. Most of the students graded their skill transfer as moderate (Fig. 2). However, the percentage of students who graded moderate was higher in case of practical skill transfer than in gains of overall knowledge. This may be due to various reasons, such as lack of required financial support from BOU to conduct practical classes, lack of practical facilities in some TCs; student attendance was not compulsory.

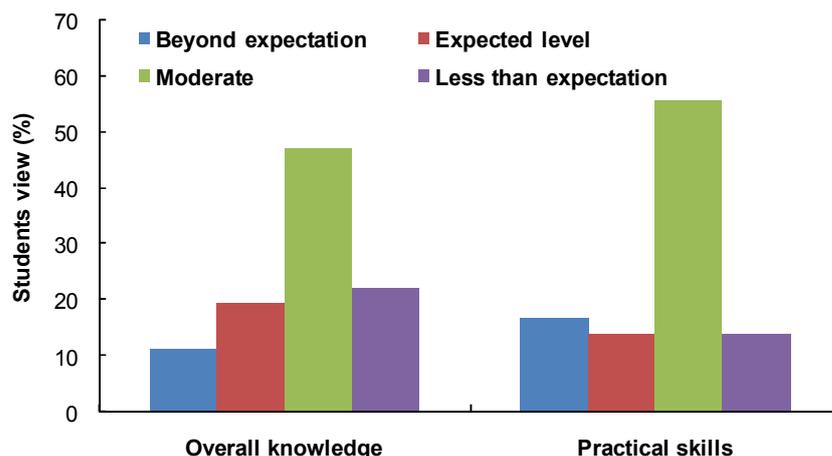


Fig. 2. Students view (%) on increment of overall knowledge and practical skills.

The students were also asked whether they would consider themselves as skilled manpower after completion of the programme. Most of the students answered positively (72.22%) and 27.78% answered negatively. To overcome this situation, most of the students recommended that both duration and number of practical classes should be increased. They also recommended that practical facilities of existing TCs should be increased and field visits, attachment with farms and project works should be included.

Programme Effectiveness

This programme aimed to create a larger group of skilled manpower in the field of fisheries that would ultimately play a significant role in enriching the agricultural economy of Bangladesh by creating self-employment. Results of this study demonstrate that the programme's effectiveness is positively correlated with its goal as evidenced by the high level of participation of rural unemployed youth. However, participation of female students was very low compared to the males. This might be due to various reasons such as financial and religious constraints, distance to TCs from their locality, less or no time as busy with family etc. The completion rate in the year of 2012 was about 63.6%, whereas the dropout rate was 25%. This was mainly due to their financial constraints, lack of programme recognition by different loan granting authorities or banks, lack of free time as students were busy with other sources of income generation, less interest to complete the courses and both course materials and examinations being found to be too difficult.

CONCLUSIONS

Results of this study demonstrated that the programme was effective and appropriate in terms of skill development for self-employment and poverty alleviation although a significant number of students dropped out from the programme for a variety of reasons. Therefore, measures should be taken to improve and develop a sustainable delivery mechanism to attract students. To ensure a sustainable delivery of vocational education in fisheries through ODL, further development in areas such as syllabuses and curricula development, improvement of course material presentation, infra-structural modifications of RRCs and COs, set-up video-conferencing facilities, production of practical based videos, improvement of evaluation system, introduction of project activities and arrangement for internship in different hatcheries, farms, fish processing industries, etc. have utmost importance. The results of this study should have important practical implications in policy decision and further research.

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