



PROMOTING ENTREPRENEURSHIP AMONG RURAL YOUTH THROUGH ODL: AGRICULTURAL PROGRAMMES IN THE NORTH-EAST REGION OF INDIA

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Summary

Today, open and distance learning (ODL) has emerged as the most viable system of teaching and learning across the world. It is gaining in popularity because it reaches the unreached sections/parts of various regions and provides access to education and entrepreneurial skills simultaneously to a large number of learners through the use of multimedia and ICT-enabled technologies. It is capable of transforming the rural youth into self-employed entrepreneurs, thus improving their socio-economic conditions. India's Indira Gandhi National Open University, a mega-university in terms of enrolments, provides examples of the success of ODL. The university is providing specific academic programmes and is organizing successfully various training programmes in agriculture in the North -East region – the most geographically, economically, and educationally deprived region of India. This training is provided through a combination of ODL and ICT-enabled learning methods. The methods used in training and the subsequent reactions of the participants provide positive and encouraging feedback which support the author's view that entrepreneurial skills can be imparted effectively through the ODL system.

Introduction

Agriculture is the main source of livelihood in India and a key to national development. Approximately 70% of the population of India's north-east region get their livelihood from the agricultural sectors. This region is faced with several difficulties – geographical, infrastructural, educational and economic. An ODL system is needed here for providing professional education to the people and helping in employment-generation and the development of region's economy.

This paper explores how ODL can be used to create awareness and promote entrepreneurial skills among rural youth in the area. Against this backdrop, the paper highlights the significant role being played by Indira Gandhi National Open University (IGNOU) through its programmes in agriculture which endeavour to enhance the professional competency of the rural youth in the region and transform them into agricultural entrepreneurs. The paper outlines the success of open and distance learning in India's north-east region and of

IGNOU's initiatives to promote entrepreneurship and capacity-building in agriculture among the rural youth there.

Profile of IGNOU

Indira Gandhi National Open University, established by an Act of Parliament in 1985, is the largest University in terms of its enrolment. Today, nearly 2 million learners from India and 33 other countries are enrolled in IGNOU. There are 21 schools of study, 59 Regional Centres, approximately 2,300 learner support centres in India and 52 overseas centres. The university offers 175 Certificate, Diploma, Degree and Doctoral programmes and has 380 faculty members and academic staff at the headquarters and Regional Centres. About 36,000 academic counsellors from the conventional institutions of higher learning and professionals from various organizations conduct the face-to-face sessions and contribute to continuous evaluation of the learners' performance. The Commonwealth of Learning (COL), Canada, has conferred on the University the 'Centre of Excellence Award' in Distance Education and the 'Award of Excellence for Distance Education Materials'. As an open learning institution, IGNOU provides flexibility in entry level in terms of age, place, pace and duration of study.

Instructional system

The university uses multimedia teaching-learning packages which include self-instructional print and audio-video materials, radio and television broadcasts, face-to-face counselling, laboratory 'hands-on' experience, teleconferencing, video-conferencing, interactive radio counselling, interactive multimedia CD-Roms, Internet-based learning and the use of the mobile phone for instant messaging. The learners can also undertake practical/practice teaching at selected programme centres.

The university has ushered in a new era of technology-enabled education with the launch of EduSat – a satellite dedicated only to education. There are 134 active two-way videoconferencing centres. All Regional Centres and high-enrolment study centres have been connected to these centres, the objective being to add value to traditional distance education with modern technology-enabled education and convert it into a *blended learning* system.

Student support

The learners at IGNOU are from a diverse range of social, economic and regional groups, such as the rural, urban and tribal; the physically challenged; jail inmates; housewives; and personnel from government and non-government sectors, and the army and security forces. To cater for the needs of all, the university has a network of Regional Centres, study centres, programme study centres, recognized study centres and partner institutions. Special study centres, which are usually located in educational institutions, have been opened exclusively for learners from minority communities, the socially and economically disadvantaged, the north-east region, tribal and low literacy areas and women learners. To extend access to education, especially vocational education to the people from rural areas, the university has also opened centres in collaboration with the Confederation of NGOs of Rural India (CNRI), Jan Shiksha Santhan (JSS), the Institute of Chartered Financial Analysts of India (ICFAI) and the Economically and Educationally Backward Blocks (EEBB).

The learners at these centres are provided with multiple support services such as subject-specific academic counselling, listening/viewing of audio/video programmes, library facilities, teleconferencing, video-conferencing, and laboratory and practical work. The tele-learning centres (TLC) are established at the Regional Centres to help learners on online programmes. Interactive lectures and counselling are provided through interactive radio counselling from the university's studio and 26 regional FM radio stations. EduSat

counselling is provided through SITS and DTH. Figure 1 depicts the instructional system of the university.

IGNOU's Agricultural Programmes in the North-East Region of India

The north-east region of India comprises 7% of the country's geographical area. Though it is richly endowed with fertile agro-climatic conditions, it cannot utilize its resources and potential fully due to its difficult geographical, climatic and educational situation. IGNOU has taken the initiative to promote entrepreneurial skills in agriculture among the rural youth of the region with a vision of bringing sustainable development and agrarian prosperity to the area. The overall objective is to connect education with capacity-building and empowerment of the rural youth there.

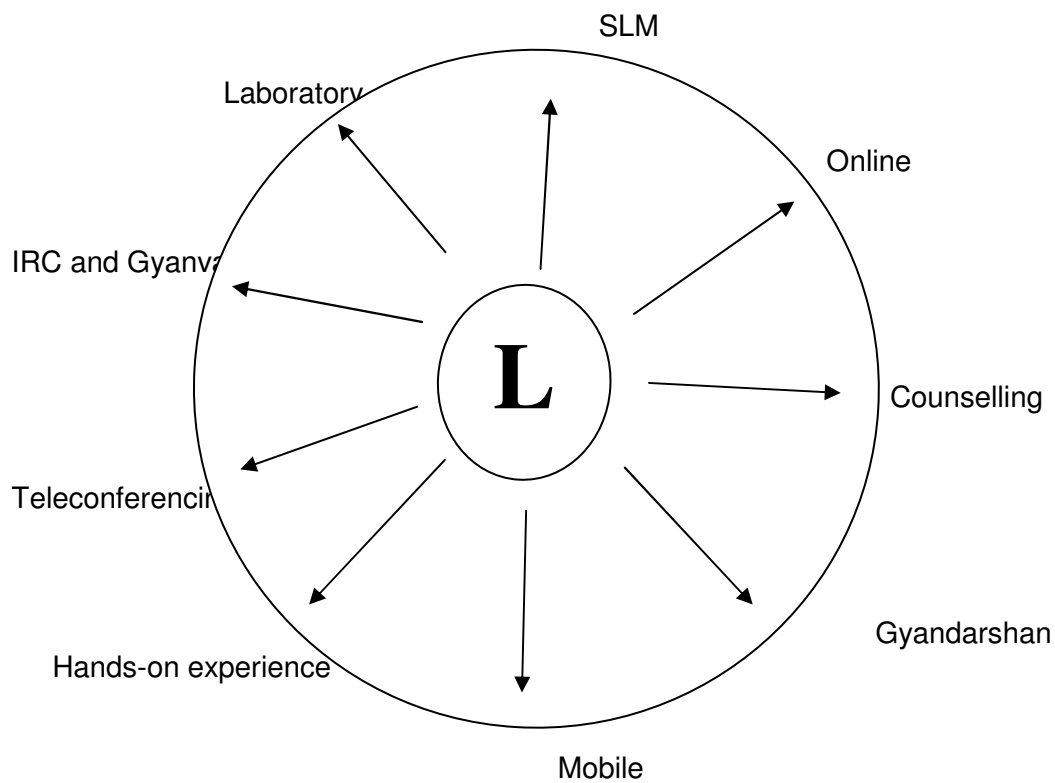


Figure 1: IGNOU's instructional system

The delivery of the programmes

The agricultural programmes of IGNOU are delivered through open and distance learning using the following modes:

- Self-learning materials (print)
- Audio and video learning aids
- Teleconferencing
- Interactive radio counselling
- TV counselling through Gyan Darshan and Direct To Home (DTH) channels
- Counselling through EduSat

- Practical counselling
- Training programmes
- Collaboration with non-governmental organizations (NGOs), the Agricultural University and Research Centres, and Animal Husbandry Departments
- 'Hands-on' training
- Lectures by experts.
- Field visits
- The e-learning portal: Information Systems Services and Networking for North-East Agriculture (KISSAN-NE)
- The IGNOU Centre for Research and Training in Agriculture (ICRTA) and the North-East Agrarian Practices and Prosperity Alliance (NE-APPA) act as coordinating centres for agricultural organizations to provide practical training for the rural youth in the region. Video studios and call-centre systems are being established here to provide a direct channel of communication and serve farmers and agricultural organizations.

The following academic and training programmes in agriculture are offered in the north-east region:

Table 1: Academic programmes in agriculture

Sl. No.	Level	Nos.	Programme
(a)	PhD	one	<ul style="list-style-type: none"> • Agriculture Extension
(b)	PG Diploma Programme	two	<ul style="list-style-type: none"> • Plantation Management • Food Safety and Quality Management
(c)	Diploma Programme	four	<ul style="list-style-type: none"> • Value Added Products From Fruits And Vegetables • Dairy Technology • Meat Technology • Production of Value Added Products from Cereals, Pulses and Oilseeds
(d)	Certificate Programme	Two	<ul style="list-style-type: none"> • Organic Farming • Sericulture
(e)	Awareness Programme	Two	<ul style="list-style-type: none"> • Dairy Farming for Rural Farmers • Value Added Products from Fruits and Vegetables

Table 2 Training Programmes in Agriculture

Sl.	Area	No. of participants	Year	Place
1.	Marketing Management of	35	2007	Guwahati

	Horticultural Produce in NER			
2.	Water Harvesting	55	2007	Guwahati
3.	Integrated Farming System	49	2007	Guwahati
4.	Dairy Farming	200	2006	Imphal
5.	Watershed Management	50	2007	Agartala
6.	Pickle and Jam making	60	2007	Aizawl
7.	Rain and Harvesting and Watershed Management	48	2007	Kohima
8.	Vermicomposting	32	2007	Shillong
9.	Technology in Milk Production	51	2008	Guwahati
10.	Sericulture	30	2008	Guwahati
11.	Hygienic Meat Production and Processing	54	2008	Kohima
12.	Poultry Farming	30	2008	Aizawl
13.	Fruit Preservation	41	2008	Gangtok
14.	Pig Rearing	50	2008	Imphal

Methods of training

Outlined below are the elements which have been included in the training programmes for the various areas:

- *Dairy farming:* Lectures on various topics related to dairy farming were delivered by experts from the Agricultural Science Centre, Central Agricultural University and the Animal Husbandry Department. Field visits to the Research Complex and Milk Cooperative were also organized to demonstrate the practical aspects.
- *Value-added products:* Lectures were delivered by eminent scientists on various topics related to different fruits and vegetables, their improved varieties and scientific methods, methods of propagation, and cultivation and post-harvest management. Lectures were also delivered on value-added products from vegetables i.e. canned vegetables, vegetable powder, juice pickles and from flowers like gulkand, rose water, essential oil, vanilla and dry flowers. A hand-out describing the steps and ingredients for materials required in preparing various value-added products from fruit and vegetables (e.g. jam, jellies, marmalade, pickles, fruit-wine, squash and juices) was also circulated among the participants. A field visit was arranged to show different fruits and vegetables and their varieties grown in the Institute Research Farm.
- *Watershed management:* Various specialist/experts from the Indian Council of Agricultural Research(ICAR), the State Agriculture University, the Forest Department, the Ground Water Board and the National Bank for Agriculture and Rural Development

(NABARD) covered in detail aspects such as: a survey and demonstration of the topography of land; the preparation of inventories of resources; soil erosion and its management; rainwater conservation and its reutilization; animal husbandry; poultry production; the application of new technologies; different agricultural and horticultural practices; mushroom cultivation; agro-forestry; fish farming; people participation; and financial avenues from the banks.

- *Pickle- and jam-making*: There was expert involvement in discussions, lectures, demonstrations and 'hands-on' work on the processes involved, including the ingredients required, the types of spoilage, the packaging of materials, labelling, quality evaluation and obtaining licences.
- *Marketing management of horticulture*: In this case, the target groups were fruit and vegetable growers, rural youth, entrepreneurs, agricultural supervisors and extension functionaries. The programme included discussions, lectures and demonstrations on various aspects of the production potential of high-value horticultural crops, agricultural marketing, infrastructural and institutional development for promoting and facilitating agricultural marketing in the NE region, various marketing functions, post-harvest processing, and value addition, financing and marketing agencies and channels.
- *Water harvesting and watershed management*: Experts from Assam Agricultural University (AAU), the ICAR research complex for the north-eastern region, and the Agriculture Science Centre (KVK) and School of Agriculture, IGNOU, delivered lectures on topics pertaining to water storage, conservation and utilization. The farmers were taken on a local field visit to Thihu where a 'Watershed Society' is actively involved in water harvesting during the rainy season by collecting rainwater in ponds constructed at particular points in the fields. The conserved water is utilized for irrigation and fish and duck culturing.
- *Integrated farming system*: Experts from Assam Agricultural University (AAU), State government; Assam and ICAR delivered lectures on various aspects of an integrated farming system. (IFS), organic farming, farm composting, marketing, economics and fish production. An exhibition was organized showing the models of IFS, new crop varieties, animal health care approaches (vaccines), improved farm implements and handicraft items. The farmers were taken on a field trip to Sonapur village.

In all these training programmes, the farmers were evaluated by testing their basic knowledge prior to (pre-test) and after completion (post-test) of the training programme. A questionnaire developed and used for the pre- and post-tests consisted of objective-type questions on various aspects of the training programme. Most of the candidates scored 3 to 10 marks in the pre-test and 11 to 19 marks in the post-test, results which revealed that the training had significantly improved their knowledge and skills.

Feedback from participants

The feedback from the participants about the programme was collected by the IGNOU faculty in the School of Agriculture. It showed that the farmers considered that:

- the training programme was quite useful for helping them to gain technical skills;
- they can utilize the technical skills for improving their existing management of dairy animals;
- they gained knowledge about new scientific techniques employed in animal management, such as artificial insemination;
- the programme inspired them to take up dairy farming on a large scale;

- The knowledge gained can improve their animals' productive and reproductive performance;
- they had learned many technical skills which can be utilized for improving their existing agricultural/horticultural, and soil and water conservation, practices;
- they had gained knowledge about new scientific techniques used in rainwater-harvesting, soil conservation, and poultry/pig/fish farming;
- this knowledge can improve their watershed and water-harvesting management skills;
- benefited a great deal from this training programme, particularly about the hygiene and sanitation aspects of preparing pickles and jams;
- they will adopt this technique to manage their agro-wastes and apply them to raise their crops;
- they are inspired to become entrepreneurs;
- they learned many technical skills through these training programmes which will help in their capacity-building and improve their socio-economic situation; and
- such programmes must be organized regularly.

They thanked IGNOU for organizing training programmes for the benefit of farmers in far-flung areas.

The majority of the farmers adopted some aspects of the training at their farms.

Conclusion

The present study concludes that open and distance education has emerged as the most viable system of learning at the national and international level. It is increasing in popularity for providing access to education and entrepreneurial skills simultaneously to the disadvantaged and 'unreached' sections of society. Today, it has become an effective mode of teaching/learning for imparting both knowledge and practical training.

IGNOU's promotion of entrepreneurial skills in agriculture among the rural youth of the north-east region has successfully combined open and distance learning and ICT-enabled learning, with an instructional system which includes self-learning materials, practical lectures, demonstrations, audio/video aids, field visits and face-to-face training. While learning through these modes, the learners got opportunities to interact with their peer group and teacher/trainers, and the feedback from the participants provided very positive and encouraging data. The present study supports the view that entrepreneurial skills can be taught effectively through open and distance learning.

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