Promoting entrepreneurship among rural youth through ODL Courses – An experience of using the wikieducator

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Bamboo and Rattan are forest-based renewable resources that can facilitate the economic advancement of rural populations in our country. Currently, however, unsustainable and short-sighted methods of utilisation are causing ecological damage to forests as well as making these resources economically unviable.

Given their manifold uses and the importance of cottage industries (in converting them from raw materials to products), these resources have great potential. To aid in realising this potential, several research institutes have been conducting studies on cataloguing species diversity, improving management of growth and harvesting practices, economic viability as well as identifying novel uses. They have standardized various steps of production and utilisation that are efficient, economically viable and eco-friendly.

Recently there has been an increase in usage of bamboo and cane products in various industrial sectors and lifestyles, which should allow us to promote these resources. Their increased production can provide for a large-scale generation of jobs – the limitation lies in lack of trained personnel. Hence, indigenous people involved in extracting these resources and creating usable products are armed with valuable traditional knowledge that need to be shared.

In rural India, especially in the bamboo/cane rich North-Eastern region and Southern region, employment opportunities are currently very low, leading to migration of workers. Encouragement of standardised, on-site primary processing of bamboo/cane (that is extremely labour intensive) can help to arrest this migration. Additionally, unemployed rural youth (school dropouts) can be empowered with the skill-set necessary for bamboo/cane enterprise. This can give them a financially supportive occupation and allow them to help their society, rather than becoming a burden.

A need was felt for developing a means of taking the standardized and eco-friendly procedures developed by research institutes to the field. Adapting scientific methods of growing, harvesting, processing, marketing etc. of bamboo and cane in the country could result in better returns to the farming community dependent on them. Well-managed use of forests and their produce would also eventually lead to better forest cover and prevention of species extinction, leading to sustainable development.

Providing local, real-time training for the above-mentioned opportunities is an expensive and time-consuming initiative, especially when it needs to reach people in different parts of the country. Therefore, distance learning was felt to be the alternative option. International Network for Bamboo and Rattan (INBAR) prepared a concept paper and approached the largest Open University system in the world – Indira Gandhi National Open University (IGNOU), as well as Commonwealth of Learning (COL) and Centre for Indian Bamboo Resources and Technologies (CIBART) to develop a course to be conducted through the distance mode. The courses developed through this collaborative effort would cater to rural and urban producers, who have no or little formal training or qualifications. The present work plan is the result of this effort.

Targeted beneficiaries:

➢ Primary focus: rural communities with only basic education.

> ➤ Secondary focus: people working in diverse enterprises including wood processing units, who want to diversify into the bamboo and rattan industry as architects, builders, handicrafts people, designers, etc., with entrepreneurial ambitions.

Besides the course materials would be used by teachers/facilitators at IGNOU centres for contact classes and will be provided to anyone who would like to improve their knowledge.

Commitment to use the Wikieducator

The Commonwealth of Learning (COL) with its commitment to 'Open Educational Resources' was a major partner in the project; it brought a significant modification in the way the content creation was envisaged. Earlier, each module was to be written by one or two experts and the course collated by IGNOU. A decision to use Wikieducator (WE) as the space for material creation changed many things – instead of one/two authors, more people could provide input to the modules being developed in the 'open domain'; it promoted collaborative writing. Having decided to take the 'e-route' to authoring, I was approached by INBAR to coordinate this effort. Acharya Narendra Dev College (University of Delhi), hence, was another partner.

Objectives of the Project

General Objective

1. Increase employment opportunities and promote enterprise – human resource development; produce job creators.

2. Improve technical and entrepreneurial skills of farmers, rural youth, women and other disadvantaged groups leading to poverty alleviation; and empower them with knowledge so that they can set up enterprises and manage them professionally.

3. Exploit the potential of WE as collaborative writing tool for developing course material.

4. Creation of knowledge network by linking researchers and extension workers to practitioners through output of the distance learning program.

The project targets stakeholders working directly with the materials, and aims not only to provide skills enhancement, but certification of lessons learnt such that they are transferable. Ultimately, the endeavour is to develop job-creators rather than job-seekers by making the courses extremely enterprise oriented.

Specific objectives

The specific objectives of the project were:
> ➤ Develop awareness and certificate courses separately for both Bamboo and Rattan
> ➤ Use available expertise, from various part of the country, for developing courses.
> ➤ Write collaboratively, so more than one person contributed to each module
> ➤ Use Wikieducator as collaborative tool, so many people could contribute
> ➤ Publish in dual format : as hard text and e-learning mode
> ➤ Ensure creation of course material suitable for hands-on training, to be conducted at IGNOU Centres or Bamboo Network nodes

The project envisages the linkage of ICTs with traditional communication media through the Community Information Centres (CIC) system that is extensive with each block having its own internet centre. These CIC would be excellent for trialling the delivery system, in conjunction with local support organizations, such as the local bamboo/rattan NGOs. These local support organisations could also organize training activities, translate materials into local languages, and conduct adaptive or action research to test the materials in-situ and adapt them.

The material was to be developed by experts on Bamboo and Rattan selected from all over the country - initially about thirty experts were identified for the purpose, making sure that each content area was covered. There are several challenges when writing for the kind of target group identified. Also, the course was meant not only to educate but encourage entrepreneurship.

Processes Adopted

The project started with a three day workshop in July 2006 in which, besides representatives of INBAR, IGNOU, CIBART, COL and ANDC, 15 experts on Bamboo and Rattan from organizations in various parts of the country participated. The workshop had the following objectives:

➢ Development of curriculum and syllabus for the certificate courses

The group discussed the scope of content that needed to be communicated to learners. Since the authors were researchers who had conducted training courses for farmers and bamboo & rattan workers in their own areas, there was clarity in what could be conveyed to a specific audience in direct-contact mode. But distance mode is not the same thing – there was the need to internalise the fact that 'exhaustive' was not going to be effective.

It was decided that of the many species of bamboo and cane in India – only commercially important species would be dealt with. Similarly, of the many methods of post-harvest treatment of bamboo/cane – only the most efficient, scientifically tested and economically viable processes were deemed important.

➢ Identification of authors/experts for each of the modules

Authors were identified based on expertise of subject area as well as representation from both North-eastern states and southern states of the country, such that diversity aspects were taken care of.

➢ Understanding of the collaborative authoring tool – Wikieducator

Two resource persons from Commonwealth of Learning (COL) conducted a workshop to explain the basic concept of "Open Educational Resources' – this was an unfamiliar concept to the authorial group. There were queries about intellectual vandalism and copyright issues. The next session involved module(s) outline development and training in uploading data into WE – learning the syntax for wiki editing was not easy for many. A brief exposure to eXe and Moodle followed. Though the continuum of collaborative writing tool (Wikieducator), authoring tool (eXe) and LMS (Moodle) was appreciated, the participants did not want to tackle more than WE at that time. ANDC provided support for the hands-on training.

➢ Agreement on acceptable module format, taking into account the target audience.

This was a challenge since the material was targeting adults but who were probably poorly educated. After much discussion it was agreed that modules would need to use very simple language – small sentences; be activity based; have many photographs and illustrations; not use technical terms unless unavoidable; and build in interactivity. It was also realised that it would not be easy to write for a target audience that is spread across the country – there is so much variation with respect to bamboo/cane in different areas – in the species grown, products made, resource availability, practices etc. Besides, there were climatic and socio-cultural differences, which would influence availability and utilization of bamboo/cane.

➢ Understanding specifics of writing a module to promote entrepreneurship

This was a greater challenge – what information in a module would encourage entrepreneurship?

Since learners would be in geographically different areas where dissimilar species of the resource grow, they would need contextual education – to conceive and understand the modalities for this, was not easy. It was essential that course material should promote exploration of environment around the learners and make them think of the entrepreneurship opportunities. It was realised that potential entrepreneurs need to know about resource processing carried out in their locality, identify products which have a market, learn to make labour-cost estimates for harvesting, transport – basically be able to create a project proposal that is fundable by banks.

➤ Consensus on work partitioning between group members by identification of individual roles

The authors would write various modules taking into account all aspects of format discussed – attempt to reduce technical language, make it simple and user-friendly and upload materials on WE pages created. Any questions regarding uploading etc could be addressed to COL or me – they could send materials after word processing to me in case of difficulties in uploading. I took on the responsibilities of making changes in the material to make them very user friendly – simplifying language, etc. Also, a difficult proposition involving the responsibility of modifying materials (to aid in promotion of enterprise among learners) was placed on me. COL was given the responsibility of creating a help page and answers to FAQs about WE. Two researchers, one each in Bamboo and Rattan, undertook the task of crosschecking materials after inputs from me, for technical correctness of materials. INBAR and CIBART would coordinate with authors and provide materials on economic and entrepreneur aspects. IGNOU would be responsible for final collation and production of the material.

Experiences on the Project

Due to my experience in school textbook development, I am a firm believer in collaborative development of materials. Thus, learning about the Wikieducator from COL representatives immediately made me see it as an ideal tool for the group. The idea of web-based collaborative writing solves so many problems of group writing; the need to discuss ideas, maintaining multiple versions of text materials, the hierarchy aspects etc. Furthermore, the simple concept of 'open editing' would allow any user to contribute content to the same page/s – with the identification of authors ensuring its success. Basically, WE envisages users creating web pages in their domain of specialisation – democratically.

My excitement only added to the ease with which I understood and took to the wiki editing, during the workshop. Soon I was in a position to talk about WE and promote its use for collaborative writing in other contexts.

Problems faced:

➤ Difficulty of writing for target audience

The team of researchers/experts, all of whom were highly qualified (many of them Ph.Ds) found it tough to write using simple language; it was very difficult to avoid technical terms. It was not easy to understand that so-called common words like 'node' and 'knee' were not easy for learners, when there are technical connotations. To tackle this problem, it was decided that the 'very essential' technical words would be explained in the beginning along with illustrations or photographs.

There was then the question of local names and terms – a table giving the commonly used terms was adapted to give a comparative picture and solve the confusion of name multiplicity for the same species.

The requirements that the materials directly address the learner (use of 'you') – a syntax usually not common except in children's teaching-learning materials – was not adhered to by most authors. The authors often wrote scientific papers or other materials, for adults, hence their difficulty.

Most of the materials had to be rewritten to make them useful for target audience, and it was not easy. The highly scientific technical materials which were exhaustive had to be weeded such that only the essentials remained. Language simplification was the next step. The most difficult step was to build in the interactivity and 'entrepreneurship'. There was a tendency to avoid open-ended questions, because IGNOU believes in providing model answers.

During modification, several questions that forced the learner to look around, had to be added e.g. Which of the things that you use daily are made of bamboo/rattan? Of things that you use daily that are not made of bamboo/cane – can any of them also be made from these? What is salary of a daily wage labourer in your area? If X man-days are involved in any particular job (say harvesting cane/unit area) how much would it cost you to have it done? How much would you have to pay for transport? How far

would you have to transport the cut stems? Where is the nearest market for cane? What size are bamboos cut to, in your locality?

These questions will force the learner, hopefully, to explore and appreciate the various aspects of enterprenuership.

➢ Wiki editing skills

In the presence of facilitators, the authors found it easy to put materials in the wiki syntax but most contributors decided it was best to send materials to me by email for uploading, rather than uploading it themselves. They lacked the confidence to further their wiki editing skills on their own. Maybe the option of forwarding materials for uploading should not have been available, but in the interest of the course and for other authors who were not present at the workshop, this alternative was suggested. The extend of collaboration envisaged did not occur despite use of WE; materials continued to be shared through normal email. There was hesitation to work on materials on WE. The WE aspect also put off some authors so much that they dropped out and we had to find alternate people, who but naturally did not use WE.

➢ Opening up to criticism from an open forum

The usual hesitation to work in an 'open domain' is not easily overcome. It requires confidence (and a little recklessness initially) to write materials that will be 'open edited'. That it was not a major issue was clear since authors did permit me to place the materials on the WE. Doubts about the quality after open editing resulted in authors continuing to work on offline versions.

➢ For a few issues relating to copyright and vandalism persisted.

Status of the Project

Most of the materials are in but only partially uploaded. They are presently being modified by me. As soon as I get the rest of the text I should be able to complete it.

Learning from the Project

➢ Need for longer hands-on training of authors

There was a feeling that training should have been at least a week long, so that authors could have actually written a module and then uploaded it. Just test uploading did not give the requisite confidence. There was also the problem of poor connectivity and low speeds. Even in Delhi, I did not initially find it easy to upload the materials sent to me. Since then, connectivity has really improved. COL was ahead of time – such a project would be more acceptable now.

➢ Need for orientation towards 'open culture'

The serious researcher is so engrossed in his work that some of the rapid changes that are taking place in the web-world bypass them – there is need for wider discussion on the FOSS culture. Due to hard sell by proprietary software companies and their tie up with hardware companies, the concept of 'free and open' is still at a nascent stage in India.

The project provided an exposure to all the people involved to OER and the WE. There was general agreement that it was absolutely essential to switch to 'open' processes and for all educational materials be available in the open domain. This was particularly important in a developing country like India. The bamboo and cane experts felt that WE was very useful but were unhappy that they were not being able to adapt to it; they felt that it would take some time to understand wiki editing.

There is need to follow up with governmental educational agencies involved in developing materials for distribution via the web, to encourage them to make their materials available through creative commons licence for the greater good.

➢ Capacity building of participants in the project to develop

- Materials collaboratively in a distance mode
- materials suitable for distance learning
- materials specially aimed at entrepreneurship

Writing of 'adult' material for the 'school drop-out' audience is tough – but any project that aims at educating the underprivileged will have to tackle this issue. Most group writing is done by sitting together and discussing things before writing – this project provided the useful option of distance mode collaboration. Writing for students that you cannot see is never easy – it becomes doubly difficult when the audience has to be taught so that they can be usefully employed after doing the course – in a field requiring practical skills. The experience of specifically writing to promote 'entrepreneurship' was a big learning experience – a tough demand but with satisfactory results.

This experience can feed into other such projects.

➢ Follow-up Studies

Once the material is ready, there is a need to study the efficacy of the course. What are the outcomes and impact? Detailed study on suitability of the course for the target audience is mandatory. Testing whether the material helps the prospective entrepreneur to understand ground realities would be interesting. What is the reaction of facilitators at IGNOU contact centres to the course? Do they find it useful? A technical feed-back study should be done, which would provide necessary learning to facilitate undertaking of projects targeting similar target groups