Developing an Agribusiness Management Module for Farmer Organizations

Integrating Research, Learning and Consulting/Teaching in Agribusiness for a Lifelong Learning Process.

The report of this study provides an overview of the process for designing a course module on Agribusiness Management for Farmer Organizations (AMFOs).

The module development was based on several interdisciplinary field case studies along with provision of consultancy services to participating farmers as part of the “AgShare” Open Education Resource (OER) project. The purpose of the study was to develop a pedagogical model and a pilot module for teaching farmer organizations such as community based organizations to change their attitude, gain new knowledge, and acquire agri-business management skills (ASK) for transforming farming from a livelihood practice to a business enterprise. In other words, transforming the farmer’s mindset from perceiving a farm to a firm.

The foundation of this cyclical process of research, learning and consulting is based on two philosophical pedagogical premises of learning at universities. First, is about the role of universities in society which highlights the significance of learning through research. Second is the way of learning which elicits the role of general education at universities as a means of integrative learning. Ultimately, the fundamental pedagogical role of universities is to create opportunities that nurture learning as a lifelong process.

Learning by Research

The role of research at universities is very critical for learning. Thus, the debate over the role of research at universities has been with us for over 200 years since Humboldt’s 1810 dichotomy between “university” and “school” (Elton, 2008). According to Elton, in Humboldt’s view;

…..a university treats scholarship always “in terms of not yet completely solved problems, whether in research or teaching, while school is concerned essentially with agreed and accepted knowledge.” The consequence, …., is that in universities “the teacher is then not there for the sake of the student, but both have their justification in the service of scholarship”.

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In other words, the role of both faculty and students is to enhance scholarship which according to Elton has also been defined by Ashby (1958, p. 22) as *the empirical approach to knowledge*. However, fear has been expressed about positioning scholarship on teaching and learning within the disciplines (Weimer, 2008). This has been the most common trend at universities as opposed to Ashby’s empirical approach to knowledge which is interdisciplinary and integrative in nature. For most universities in the American system of university education, this process is founded on the platform of General Education (or other similar programs).

**Role of General Education**

In his discussion of “What is a Generally Educated Person”, Jerry Gaff refers to the late Joseph Katz who defined general education as "the knowledge, skills, and attitudes that all of us use and live by during most of our lives - whether as parents, citizens, lovers, travelers, participants in the arts, leaders, volunteers, or Good Samaritans". (Gaff, 2004) He further argues that general education is relevant today “because the United States has moved from an agrarian economy, through an industrial economy, to a knowledge-based economy”. He supports this contention by indicating that labor economists have determined that, for a knowledge-based economy where many people work on solving unscripted problems, a liberal education is excellent preparation for the best careers (Carnevale and Strohl 2001). And according to White (2004), one of the key goals for general education is “to help students develop the tools essential for constructive participation in civic affairs - the social, political, professional, and artistic environments we inherit and then, leave for others”.

One area of interest and debate typically revolves around the approach to teaching General Education. Indeed, Gaff (2003), has equated the development of general education to the “original sin” by highlighting the demands on educators to overcome their academic pride and sacrificing the focus on their own discipline, research interest and autonomy. Thus, in most cases, educators at colleges and universities come from specific disciplinary backgrounds. However, general education requires an interdisciplinary integrative approach to teaching. A review of disciplinary perspectives and approaches includes concepts such as disciplinary, cross disciplinary,
multidisciplinary, interdisciplinary, and integrative approaches.

1. A *disciplinary perspective* involves teaching a specific subject matter within a discipline by an expert in the respective discipline using specialized disciplinary theories and methods. But while most college and university programs have been designed around their disciplines, all the models for teaching general education need to go beyond a disciplinary coverage.

2. On one hand, a *cross disciplinary approach* tends to teach a subject matter in one discipline by taking on ideas from another discipline such as by borrowing of concepts, models, theories etc in order to provide a rich understanding or a comparative context of one's own discipline. A *multidisciplinary approach* on the other hand puts emphasis on involvement of multiple disciplines, especially in problem solving situations where input is collected from a wide variety of viewpoints. In both cases, a teamwork approach to teaching is not only encouraged but is expected. While these two approaches enrich student learning, they are still done along disciplinary boundaries and therefore not fluid enough.

3. An *interdisciplinary approach* tends to melt these boundaries. According to Heidi Hayes Jacobs (1989), interdisciplinary learning is a “knowledge view and curriculum approach that cautiously applies methodology and language from more than one discipline to examine a central theme, topic, issues, problem or work”. According to Erickson (1998), interdisciplinary learning is said to have become active in the United States in the 1890s until the 20th century when it gained considerable attention from an education theorist John Dewey and boosted during the 1960s “open classroom” concept and Hilda Taba’s research works when educators began collaborative teaching units and creativity became the most important element in curriculum design. While the process experienced some setbacks in the 1970s anti-open classrooms, the education community had started to shift so that by the 1980s, emphasis was already being placed on the teaching of higher order thinking skills.

**Integrative Learning**

However, this was not without concern from those who viewed interdisciplinary approach as a threat to the integrity of the disciplines and thus “upsetting hundreds of years of educational theory” (Jacobs, 1989). Jacobs’ initial concern was about the earlier attempts that resulted in the so called the "potpourri effect," instead of true interdisciplinary design. She therefore argued that it was the works of
researchers such as Ackerman and Perkins who helped expand horizons by suggesting that “educators align the teaching of thinking with the teaching of content, to ensure that students developed higher-order thinking skills and discipline-based knowledge in an integrated way” (Jacobs, 1989).

While an interdisciplinary approach has in many cases been treated as synonymous with an integrative approach to learning, in practice, the former tends to put emphasis on the presentation from multiple perspectives while the later tends to focus on the integration of ideas covered previously and synthesizing them from an interdisciplinary perspective. For example, Schneider (2003) talks of integrative learning in form of culmination of learning. She points out that starting with: “today’s students now have multiple, structured opportunities to make connections across disciplines and fields, to connect theories to practice, and even to engage their own lived experiences in the context of what they are learning in general education and in their majors. This commitment to integrative learning helps ensure that students will learn to take context and complexity into account when they apply their analytical skills to challenging problems”.

And according to Rothblatt (1993), integrative learning focuses on educating the "whole" person by encouraging "breadth of outlook, a capacity to see connections and hence an ability to make fundamental decisions and judgments". It requires deliberative and reflexive stance towards knowledge acquisition and typically considers differing dimensions or perspectives of the problem and making links among the perspectives or dimensions such as contextual learning. According to the Center for Excellence in Teaching (CET) at the University of Southern California, “Contextual learning occurs when teachers relate subject matter to real world situations. Students are motivated to make connections between knowledge and its applications to their lives as family members, citizens, and workers”. According to Rothblatt (1993), the focus of integrative learning is on: “discovery and creativity, integrating and interpreting knowledge from different disciplines, applying knowledge through real-world engagements, or teaching students and communicating with the public.....disciplines are now less bounded, with new areas of scientific knowledge emerging on the borders of old ones”.

Based on the context of the disciplinary perspectives, and best practices, it is therefore the interdisciplinary integrative approaches that have been viewed as representing the “whole” and therefore more realistic for general education purposes. An interdisciplinary integrative learning is thus the foundation of an effective lifelong learning.

**Project Design and Methodology**
The project involved research and consulting activities to cultivate a process of learning among all the three key stakeholders, i.e., faculty, students and farmers. The project developed a pilot course module by combining concepts with regard to the structure of the agricultural sector and policies, context of the economics of a firm, behaviors of an entrepreneurial mind set, sustainable farming and applications of information technology. The framework was based on five key outcome objectives as outlined below.

1. **Form Community-wide Partnerships:** The goal here was to enable and facilitate community-wide partnerships (CWP), networking opportunities to support the project’s vision and exploration of policy and strategy issues. This include partnerships with both farmer organizations and other relevant stakeholders, i.e., partnerships among USIU faculty and at least one university in Kenya with agriculture faculty, one producer organization and one NGO involved in women and agricultural / rural development and arrangements for feedback loops among those partners for information sharing for OER development and use and reuse.

2. **Build Capacity:** The framework was tailored towards facilitating advanced business management and organizational skills development of farmers and producer organization to increase their overall ability to transform their members’ farming practice from a livelihood to a business enterprise. Similarly, in partnership with a local agriculture university (AgShare Partner), the module was to be used for training masters level students as a field work seminar. This included creating capacity for awareness of OER platform and understanding of creating information, using and reusing OER materials among all USIU AgShare project partners.

3. **Create Learning Materials (OER):** The team worked in partnerships with Moi University to co-create an OER environment and associated learning materials. USIU faculty developed syllabus content, teaching and class activity content, and case studies for teaching. They also taught the course in collaboration with each other from an interdisciplinary perspective. USIU internship students participated in the module development and case study process. They developed case study scenarios through interview data collection, writing of farmer stories, and captured farmer experiences through films and pictures. The completed draft was shared with the AgShare partner universities for feedback, input and possible adoption. All USIU AgShare project partners agreed on Open Access Licencing of AgShare project materials. This was a non credit
module except that participants were to receive a certificate of completion.

4. Create an AgShare Fellows Program: The AgShare Fellows Program (AFP) constituted both faculty, students, and farmers who championed the concept of OER within their respective universities. USIU coordinated with internship and community service programs to recruit student Agshare fellows who would capture local stories that could be used as illustrations, examples, and even case studies. Four students were recruited including three USIU undergraduate students from journalism, entrepreneurship, and IT and one agriculture masters student from the AgShare partner university.

5. Assess the Impact: During phase two of the project, the team embarked on project assessment with the dual quantitative and qualitative goals of determining the level of output as well the effects of the project. The output levels included: assessing the level of partnership and networking; development of modules for Farmer Organizations; and generating a variety of OER materials produced (modules, cases, and video). Determination of impacts included; the impact on farmers, impact on faculty and students; and desirability of modules at universities.

   Issues of sustainability and ethics were embedded in the module. Agribusiness issues to be covered included green business development, sustainable supply chains, and a focus on development of socially responsible ventures. The farmer organization issues also included concepts of green farming practices, carbon footprint minimization, economically sustainable planting and harvest methodologies, and sustainable and just labor practices. This was accomplished through participating faculty’s selection of appropriate books, articles, case studies, experiential exercises, facilitated discussions, and lectures which make reference to sustainability and ethics or provide a format for their use as one of many analytical tools.

Concluding Observations

The process of course development is in itself a research process that imparts learning for the developer. The consultancy outcome solidifies that learning process. This is further enriched by not only a process of integrative learning, but also when the teacher, student, and practitioner and all involved in the process of creating knowledge, developing skills and changing attitudes through research and learning from each other. This project was a demonstration of this integrative and collaborative process of learning.