

### Equipping Youth with Agripreneurship: Linking Secondary Agricultural Education to Communities

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#### Problem Statement

How do we ensure food security for a global population approaching nine billion people? This is one of many concerns for world leaders. The phenomenon is worsened by the declining number of youth engaged in or who aspire to pursue agricultural-related professions or careers across the globe (Mukembo, Edwards, Ramsey, & Henneberry, 2014, 2015). Although youth in Africa are becoming better educated, the investments made have not yielded the anticipated returns, because most are unemployed or underemployed (Gough, Langevang, & Owusu, 2013). Further, many of the skills they acquire in school do not match those needed by employers or help youth to become self-employed (Montpellier, 2014). When youth leave school early without the necessary life skills to survive in the real-world, it limits the income they are likely to earn, which negatively impacts their quality of life and communities (Valle, 2012). Most distressing is that the prospect of African youth securing good livelihoods is not assured even if they attain higher education (Valle, 2012).

According to the International Labor Organization [ILO] (2014), youth entrepreneurship in agriculture, i.e., *agripreneurship*, could be the missing link to address the challenges of poverty and unemployment experienced by many young people, especially in developing countries. Further, promotion of *agripreneurship*, including value addition to agricultural products by youth entrepreneurs, has the potential to mitigate the challenges many young people experience, to improve their livelihoods, and to increase food security (International Youth Foundation, 2014; Montpellier, 2014).

Agricultural entrepreneurship is synonymous with *agripreneurship* (Bairwa, Lakra, Kushaha, Meena, & Kumar, 2014). *Agripreneurship* emanates from the discipline of entrepreneurship (Lans, Seuneke, & Klerkx, 2013).

*Agripreneurship* is the application of entrepreneurial principles to identify, develop, and manage viable agricultural enterprises/projects, optimally and sustainably for profit and improved livelihoods.

A number of factors drive people into entrepreneurship and the same factors may motivate youth to pursue *agripreneurship*. These factors form two categories, i.e., **push and pull factors** (Vyavahare & Bendal, 2012). **Whereas the push factors mainly arise from situations and circumstances surrounding an individual, i.e., extrinsic forces, the pull factors emerge from the individual's inner self or desire; their motives are intrinsic.**

*Agripreneurship* has the potential to contribute to a country's economic development by creating employment for the local populace in direct and indirect ways, improving nutrition, and contributing to food security and food sovereignty (Bairwa et al., 2014). Alsos, et.al, (2011) posited that communities and nations dependent on agriculture as their main source of livelihood can develop by transforming the agriculture sector to embrace *agripreneurship* and support aspiring *agripreneurs*. However, because most extension agents are specialists in a particular field, they may require additional training in the principles of agricultural entrepreneurship to be effective at mentoring aspiring *agripreneurs* (Kahan, 2013). In addition, young aspiring *agripreneurs* need to be equipped with real-world experiences in agricultural entrepreneurship through *hands-on, minds-on* approaches and that can be achieved through project-based learning approaches, i.e., learning by doing.

## What is Project-Based Learning?

Project-based learning involves students working mostly in teams, on ventures or enterprises in real-world environments under the mentorship and guidance of their teachers or other adult facilitators (Mills & Treagust, 2003). Blumenfeld et al. (1991) defined project-based learning as “a comprehensive approach to classroom teaching and learning that is designed to engage students in [the] investigation of authentic problems.” Blumenfeld et al. (1991) added that **the collaboration between students and teachers is akin to that of a “master-apprentice relationship” in which the teachers model for learner and equip them with techniques to implement their projects.**

## Project-Based Learning in Agricultural and Extension Education

Historically, project-based learning has been the cornerstone of experiential learning in agricultural education with the aim of equipping students with vocational skills to succeed in the real-world through *hands-on, minds-on approach*, i.e., learning by doing (Phipps, Osborne, Dyer, & Ball, 2008). For example, the use of Supervised Agricultural Experience (SAE), as reflected in the three-circle model of high school agricultural education in the United States (see Figure 1), provides learners with opportunities to apply the content learned in the classroom to situations in real-life (Barrick, Hughes, & Baker, 1991; Phipps et al., 2008).

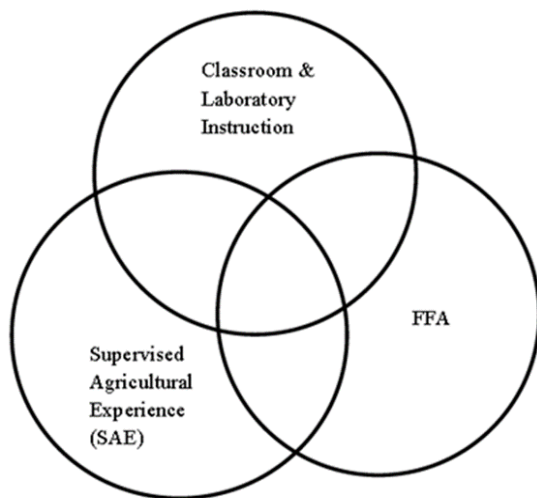


Figure 1. The Three-Circle Model of Agricultural Education (National FFA Organization, 2015).

The SAE component involves *hands-on, minds-on* learning experiences in real-world situations, such as conducting a supervised entrepreneurship project, or a research project, and so forth, under the supervision and guidance of a teacher or another qualified adult (Croom, 2008), involving project-based learning approaches. Agricultural entrepreneurship is an important aspect of SAE and has been instrumental in helping students establish their own agricultural enterprises after graduation from school (Moody, 1992). Barrick et al. (1992) posited that when students develop and manage their agricultural entrepreneurship projects, they are able to “develop the necessary skills and competencies to become established in their business or gain employment” (p. 29). Such skills gained by students include good work ethics, record keeping, risk taking and management skills, idea generation, and skills to solve problems encountered in real-life situations (Moody, 1992).

Project-based learning has been used around the world by universities and non-governmental organizations, such as Sasakawa Africa Fund for Extension Education (SAFE), to ensure that agricultural graduates are equipped with the real-world experiences, skills, and knowledge necessary to succeed (Kanté, Edwards, & Blackwell, 2013; Mutimba & Khaila, 2011). For example, SAFE has facilitated capacity building among extension workers to immerse them in real-world experiences through Supervised Enterprise Projects [SEPs] (Kanté et al., 2013).

The students who complete the SAFE program earn a bachelor’s of science degree, whereas they previously held only a diploma or certificate in a technical area of agriculture.

Supervised Enterprise Projects [SEPs] are similar to apprenticeship projects for the mid-career agricultural extension agents to upgrade their knowledge and skills (Kanté, 2010).

In the SEP model, mid-career extension agents work with instructors and supervisors to develop a project proposal to solve a farmer-focused problem identified within their respective communities, and they work together with local farmers to effect the project's implementation (Kanté, 2010; Mutimba & Khaila, 2011). This approach ensures that extension agents acquire the experiences, knowledge, and skills related to the kind of services they provide to avoid a potential *mismatch* between the community's needs and human resources (Zinnah, 1997).

In Uganda, Gulu University uses project-based learning to ensure that its agricultural graduates receive hands-on experiences through community engagement (Kalule, Mugonola, Odongo, & Ongeng, 2014, p. 1). Students are matched with farmers willing to provide them with apprenticeship opportunities, and they work with the farmers on projects to gain real-world experiences, and, in turn, students provide technical advice to the farmers, as may be appropriate (W. Odongo, personal communication, September 12, 2015).

Similar to Gulu University's community outreach model, Costa Rica's EARTH University uses project-based learning to ensure that students in their second and third years of study work with small-scale farmers to address challenges impacting agricultural production in their communities (Study at Earth, n.d.a). The community outreach model used by EARTH University has different areas of specialty, such as agricultural development, human development, as well as microfinance, and students engage with the community on a project addressing one or more of these areas (Study at Earth, n.d.a). However, during the implementation of the project, special emphasis is put on the project's entrepreneurial aspect to solve an identified community problem, including the project's long term environmental impact, and sustainability (Study at Earth, n.d.b).

The above mentioned project-based learning approaches employed by U.S. high schools, EARTH and Gulu universities, as well as SAFE involve an element of students engaging with the community. This approach has helped bridge the gap between

schools and communities while ensuring that students acquire real-world experiences to apply classroom concepts through hands-on, minds-on approaches (Barrick et al., 1992; Kanté, 2010; Study at Earth, n.d.a). However, with the exception of the SAEs used in the U.S. secondary schools (Barrick, et al., 1991), most of the project-based learning approaches used in agriculture have focused mainly on students in tertiary institutions, e.g., EARTH University, Gulu University, and the SAFE approach (Kanté et al., 2013; Kalule et al., 2014; Study at Earth, n.d. a, b).

**The use of project-based learning through SAEs have helped equip youth with practical skills in business development, record keeping, management, and value addition (Moody, 1992).**

Little effort has been directed toward empowering youth in secondary schools in developing countries with real-world experiences in agriculture, such as agricultural entrepreneurship through project-based learning for skills development and economic survival after graduation. Developed countries such as the United States have used project-based learning through SAEs to equip youth in secondary schools with practical skills, including business development, record keeping, management, and value addition (Moody, 1992). Some of the beneficiaries of this approach have used the acquired knowledge and skills to develop viable businesses, which created employment opportunities in their communities (Barrick et al., 1992; Moody, 1992). Therefore, adopting a related approach but modified to suit secondary school students in developing countries could be one way to equip them with practical skills for self-reliance and livelihood development. Such a project-based learning approach would integrate agricultural and entrepreneurship education so students are able to realize that agriculture is a business enterprise with prospects of gainful employment and community development.

## Equipping Youth with Agripreneurship Skills to Improve Rural Livelihoods

Using the concept of project-based learning, students working in teams, under the guidance of their agriculture and entrepreneurship teachers, could develop and implement innovative *Supervised Agripreneurship Projects [SAPs]* (see Figure 2). Such projects could involve principles of entrepreneurship, such as innovativeness, profitability, and sustainability, while engaging stakeholders in the community. As the students implement their projects at school, with the help of agricultural extension agents, they would be linked with other farmers in the community working on related enterprises to develop relationships based on mutual agripreneurial interests. Such relationships would involve a two-way learning process with reciprocal flow of information, collaboration, and feedback between students, farmers, and other stakeholders.

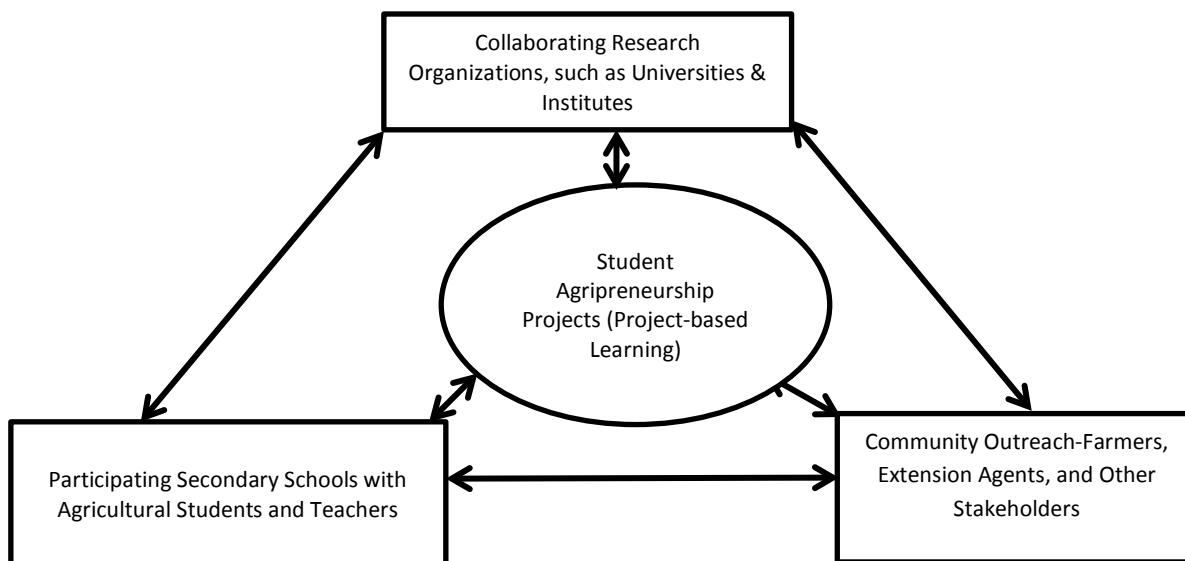


Figure 2. Diagrammatic representation of the synergy and reciprocal flow of information between collaborating institutions, participating institutions, and the community.

## Conclusions and Implications

Although many young people are becoming better educated (Africa Economic Outlook, 2012), the knowledge and skills acquired from school have had minimal impact in helping them solve the livelihood challenges they encounter (Gough et al., 2013; Montpellier, 2014). To that end, new approaches should be adopted to ensure students acquire *hands on, minds on* experiences to solve challenges experienced in their communities such as unemployment and food insecurity. One such approach could be the use of project-based learning in secondary schools to integrate agricultural and entrepreneurship education, i.e., *agripreneurship* to engage young people with farmers in their communities, as well as other stakeholders (see Figure 2). Moreover, as a result of these interactions, new ideas may evolve between the farmers, students, and other stakeholders leading to co-creation of knowledge, solving problems, and adoption of innovative practices (Mauser et al., 2013; Navarro, 2008). Promoting agripreneurship as a school-community, project-based learning model, it is likely to contribute to personal, community, and national development, while improving livelihoods (Alsos et al., 2011; Bairwa et al., 2014).

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