Why focus on entrepreneurship in middle-level tertiary education?
Investment in entrepreneurship has the potential to significantly grow African economies and increase food security (Agriculture for Impact, 2014). In Sub-Saharan Africa (SSA), many stakeholders believe that the supply of entrepreneurs can be augmented (Mahadea, Ramroop, & Zewotir, 2011). Herrington, Kew, and Kew (2010) contend that a culture of entrepreneurship could reveal the latent potential of the South African economy. The World Bank (2000) argues that qualitative, quantitative, and general observation all support the premise that higher education in developing countries is essential to income growth.

Middle-level tertiary education programs are perfect entrepreneur incubators. These institutions (also referred to as monotechnics, polytechnic colleges, further education colleges, vocational colleges, or brevet de technicien superieur) grant national diplomas but do not grant bachelor’s or higher level degrees. They serve numerous audiences including place-bound students, students who do not score high enough on national exams for university admission, students who cannot afford university tuition, and students who prefer a diploma and focused career preparation. These institutions serve large numbers of diverse students who are benefiting from greater access to basic education.

What is entrepreneurship education?
Entrepreneurship education (EE) is defined as: “[t]he scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated and exploited. Consequently, the field involves the study of sources of opportunities, the process of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them” (Shane & Venkataraman, 2000, p. 218).

An EE curriculum teaches a set of behaviors, idea generation (divergence), idea convergence, development of business plans, financing, business set-up, internal and external assistance seeking, business start-up, acquisitions, and business expansion or ‘flipping’ an established business (Vesper, 1996; Vesper, 2001). EE is best taught through both practice and theory, in partnership with practicing entrepreneurs, and as a lifelong endeavor.

Approaches to EE program delivery
Colleges usually begin integrating EE by offering a course, transition into an area of emphasis or minor, and ultimately into a major or as a series of courses and experiences that are included in the common core curriculum. There are generally two approaches to program delivery—one-shot and extensive immersion which are undergirded by one of two ideological approaches—neo-liberal and capabilities.

One-Shot Approach: The EE programming in SSA is predominately course-centric. One-shot courses are easily incorporated into existing curricula, and relatively low-cost to offer in terms of faculty salaries. However, there is no standardization of course titles or content, little agreement of when the course should be taken in the course of study,
and one-shot programs offer little time for students to internalize course content. Representative course titles in South Africa include: (a) Small-Business Management, (b) Small Business Finance, (c) New Venture Creation, (d) Franchising, Innovation and Technology, and (e) Growth Management (Co & Mitchell, 2006).

**Extensive Immersion Approach:** Extensive immersion programs require a great deal of institutional investment and long-term buy-in from key institutional stakeholders. EE is embedded in all majors through a core curriculum, and multiple, sequenced theory and hands-on skill development courses are required. Faculty must teach entrepreneurial skills and theory in addition to their academic area of expertise.

Federal Polytechnic, Ado-Ekiti, in Nigeria is a model extensive immersion program. In this program, students complete a theory course in the first semester of each academic year, followed by a skill acquisition course in a broad range of easily-entered enterprises (e.g. apiculture, aquaculture, or poultry). The enterprises for the skill acquisition courses are chosen based on local market analyses. Limitations of this model include faculty and laboratory costs and required credit hours outside of an academic major. The primary benefits include transferable skills and expertise in business development.

**Ideological Approaches:** Regardless of delivery model, DeJaeghere and Baxter (2014) contend that there are two distinctively different lenses in which EE curriculum is developed—either through a neo-liberal approach or through a capabilities approach.

The neo-liberal approach is subject matter-centered. EE framed through a neo-liberal lens is a behavioral or human capital approach, focusing on teaching knowledge and its application, creativity and business management, with little regard for a respective student’s situation.

The capabilities approach is student-centered, focusing on a student’s personal situation including basic livelihood needs, strengths and weaknesses. The individualized program focuses on expanding capabilities linking the student’s attributes and skills to ways to tap into market demand. The program then helps the learner transform these capabilities into functions or active choices with regard to managing profits through savings, spending for household needs, or spending to enhance personal status among peers. EE framed through a capabilities approach is designed around the value of the student and illuminates the importance of the transfer of knowledge and resources.

**The way forward**

**For Researchers:** More empirical evidence is needed on African-centric content, delivery models and impact. For regional program EE expansion it is recommended that a larger mixed methods research study be conducted to better characterize existing programs.
For Program Development: Committed institutions should integrate an entrepreneurship ecosystem as part of their institutional culture (Maas & Herrington, 2011) including: (a) an explicit mission for EE articulated in their strategic plan; (b) an international focus coupled with a purposive regional economic development action plan (think globally, act locally); (c) a cultivation of an interdisciplinary or cross disciplinary faculty accommodating individualized teaching styles within a centralized institutional curriculum; (d) a faculty reward system for exploiting opportunities for innovation; and (e) a tripartite emphasis on teaching, scholarly activities, and entrepreneurial incubation and broader community outreach. Attention must be paid to program outcomes. Also, a cadre of EE faculty must be developed. Finally, revenue capture models should be phased in and programs should be expected to generate revenue, particularly in agricultural colleges when programs are charged with farm-management.

For Regional or National Development: A SSA accreditation body should be created to develop common program outcomes. Quality indicators directly related to program outcomes must be made explicit, regular institutional data collected, and regional economic and workforce data must be monitored. Accreditation would facilitate ex post impacts on the nature and magnitude of program effects in reducing poverty, contributing to local economies, and increasing employment. Additionally, a Center for Agribusiness EE Research, Evaluation and Accountability should be established in Sub-Saharan Africa. This center could serve Extension agencies, community-based extension delivery, TVET-based institutions, as well as higher education institutions. It should conduct both basic behavioral economics research, applied consumer/producer behavioral research and program-assessment related research. This center could generate revenue in part by providing oversight to regional EE academic program assessment where member institutions would provide revenue for securing and maintaining accreditation.

Entrepreneurship is a critical piece of economic development for SSA. Attention should be paid to EE capacity building for middle-level tertiary institutions.

For the full version of this brief, please see Developing the Capacity of Middle-Level Tertiary Education in Preparing and Nurturing Young Entrepreneurs in Sub-Saharan Africa by Matt Baker on the InnovATE website.

References