Assessing Curriculum Designed to Foster Students’ Entrepreneurial Knowledge and Small Business Skills from a Global Perspective*

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Abstract:

The purpose of this paper is to report on outcomes of a 3-year collaborative project that addresses the need for future professionals with entrepreneurial knowledge and small business skills. The multiphase project involved partnerships developed between textile and apparel faculty at four U.S. universities and faculty in similar programs at universities in Thailand, India, Russia, and South Africa. Based on primary and secondary research conducted with small apparel businesses and entrepreneurs in the five countries during Phase I of the project, eight modules were created for integration into existing textile and apparel courses during Phase II. Phase III focused on the assessment of students’ knowledge and skills following delivery of the modules. This paper reports on the results of module assessment via a repeated measures experiment using pre- and postsurveys that included closed- and open-ended questions. Analysis of the quantitative and qualitative data indicated that modules helped to increase students’ entrepreneurial knowledge and small business skills from a global perspective.

Keywords: curriculum development | entrepreneurship | learning modules | small business

Article:
According to the Small Business Administration (SBA), small firms represent 99.7% of all firms with employees and they have accounted for 64% of all new jobs created in the USA over the past 15 years (SBA, 2012). In spite of the downsizing that has occurred in corporate America, the rate of small business start-ups has grown as the failure rate of small business has decreased (SBA, 2013). In addition, nearly half (49%) of all U.S. textile-based product manufacturing firms (NAICS 313, 314, 315, and 316) are small in size, employing approximately 59% of the total number of employees in this sector (U.S. Bureau of the Census, 2011). Given the large number of small textile- and apparel-related firms, and the large percentage of small firms within the USA, it is likely that textile and apparel graduates will work for small businesses, to partner with small firms in the manufacturing process, or start small businesses of their own. Therefore, textile and apparel graduates entering the workforce must be prepared to support the critical role that small businesses play within the U.S. economy and industry as a whole.

An understanding of the challenges and opportunities unique to the small firm is important to navigating today's manufacturing sector (Clegg & Birch, 2007). Innovative business solutions are the core of any successful enterprise, but in the textile and apparel industries, these innovative solutions must account for challenges that arise from a global supply chain. Many businesses that were once large manufacturing corporations have scaled back in size and left domestic production. Instead, the production process is managed from the USA through supply chain partnerships that often span multiple international borders (Dickerson, 1999; Kilduff & Chi, 2006). As a result, textile and apparel businesses in the USA are inherently global in nature, with an economic importance that reaches beyond local and national economies to have a global impact (Davis, 2008). While many of the world's largest apparel retailing and marketing firms are headquartered in the USA, due to lower manufacturing costs abroad, the USA imports more apparel than it makes domestically (Platzer, 2013). Furthermore, many of the firms with which U.S. companies partner abroad are small businesses that face challenges similar to challenges faced by small businesses in the USA (Scott, 2006).

Given the global nature of the industry, companies require professionals who are capable of addressing the challenges faced by entrepreneurial and small firms from an international perspective. When problems arise throughout the production process, knowing how to manage the global textile and apparel supply chain necessitates creative thinking, resourcefulness, intercultural competency, and innovative solutions. Consequently, whether graduates work for a small business, start their own business, or source from a business abroad, an understanding of what makes the small firm important, particularly within the global context, is critical for achieving success in the current and future industry workplace. To prepare graduates to work effectively within this workplace, a multiphase project was undertaken to develop materials that could be used (i) to enhance students' awareness of the opportunities and challenges faced by small textile and apparel firms around the globe and (ii) to foster students' entrepreneurial knowledge and skills within the global industry.
In this paper, the third and final phase of the project is discussed. This final phase focused on the assessment of students’ knowledge and skills following delivery of the educational modules that were developed in the second phase based on the primary and secondary data collected during the first phase of the project. The literature distinguishes between entrepreneurs and small business ownership to the extent that an entrepreneur does not necessarily have to own a small business (Katz & Green, 2007). For this project, the authors followed this definition and focused on the knowledge and skills needed to function in a globally oriented, entrepreneurial and/or small business context.

**Background**

A Global Emphasis

Understanding how entrepreneurial and small businesses can maintain the apparel and textile industry's competitiveness on a global platform has become increasingly important as small U.S. businesses have become critical to international business growth (Vibhakar & Smith, 2004). Likewise, the core of postsecondary institutions’ missions is preparing “global ready” graduates to address the challenges of today's world (Deardorff, Wit, Heyl, & Adams, 2012). To do so, higher education curricula are increasingly focused on developing student competencies, particularly their professional skills. Such professional skills include that of working knowledgeable and living comfortably as a member of a global society (Lohmann, Rollins, & Hoey, 2006). This focus on “soft skills” is a result of organizations placing a premium on job candidates’ global competencies as these businesses strive to compete in an increasingly globally integrated marketplace (Yan, Zhu, & Hall, 2002). As reported in Reimers (2009), more institutions of higher education have placed globalization among their top priorities to address this demand.

Much of the literature suggests that global competence is comprised of knowledge, skills, and attitudes (Fantini, 2009; Hunter, White, & Godbey, 2006). Instructors and institutions have implemented a variety of strategies to enhance students’ global competence, from course work and reflection activities to study abroad opportunities. These strategies implemented both in and out of the classroom are intended to prepare students for the globalized workforce of the 21st century, and to equip students to take on the global challenges that confront society today (Deardorff & Jones, 2012). While global competence may be a challenge, particularly for faculty working in areas that typically do not have a global focus, it is imperative that curriculum and course work include opportunities for global knowledge and awareness to prepare students for the world in which they will live and work (Li, 2013).

To address these needs, this multiphase project was undertaken by faculty at four U.S. institutions and faculty at collaborating institutions in Russia, Thailand, South Africa, and India and industry professionals in each of the five countries. By creating linkages between university programs in these countries, the project created a global framework to foster the globalization of
teaching and learning. The four primary project objectives were to (i) create educational materials, including hands-on, active learning activities, as well as readings and case studies that foster students’ knowledge of small firms, enhance their understanding of the importance of small business within the global industry, and develop requisite entrepreneurial knowledge; (ii) create modules from these materials that, by targeting existing courses, address the multifaceted role of small business at different points within the global industry supply chain; (iii) develop an assessment tool to measure the knowledge and skills facilitated by the modules and relative to the needs of the global industry; and (iv) deliver and evaluate the modules and measure project outcomes.

The development of students’ entrepreneurial knowledge and skills within the global environment is a critical component of U.S. higher education (Jackson, 2012). This is particularly important given recent reports that while students graduate with discipline-specific knowledge, they are lacking strength in areas such as numeric and literacy skills, innovation, cultural awareness, problem-solving skills, and self-management (CBI, 2011). If institutions of higher education do not equip students with these skills, employers, particularly small business owners, will bear the financial burden of teaching them (Landrieu & Murray, 2011). Furthermore, college graduates lacking these skills will be disadvantaged in the job market.

Entrepreneurship and Higher Education

Due to the importance of entrepreneurship and the belief that the knowledge and skills needed to become an entrepreneur can be taught (Coleman & Robb, 2012), most educational establishments now offer some entrepreneurial training. For example, in the USA, most nationally ranked schools offer entrepreneurship courses (Kuratko, 2005). Entrepreneurship education becomes even more important as increasing numbers of individuals move from working for large corporations to self-employment (SBA, 2013). There is great variation in approaches to teaching entrepreneurial skills, however, and little agreement on which approaches are effective and to what extent (Coleman & Robb, 2012). Entrepreneurship education includes everything from stand-alone schools and departments focused solely on that area, to short workshops and seminars designed to address particular dimensions of the topic.

Whatever the form of entrepreneurship education, formal or informal, for the young student to the older entrepreneur, pedagogical researchers contend that the teaching process should focus on active learning, which places greater emphasis on the student exploring his or her own skills, competencies, and self-awareness (Richardson & Hynes, 2008). While many courses focus on the financial side of business ownership (e.g., how to write a business plan, present a proposal to investors), some research suggests that the success of a venture begins with the entrepreneur. For example, Mattare (2010) argues that high self-efficacy, emotional intelligence, and well-developed interpersonal skills have been shown to equate to a firm's success and that development of these skills is necessary in the entrepreneurship curriculum.
To improve the quality and relevance of entrepreneurship education, Hynes and Richardson (2007) discussed the importance of linking the university entrepreneurship course to examples within the real world. The authors argued that entrepreneurship education must focus on areas relevant to industry and to economic growth. Educators must be prepared to modify courses to reflect the changing economic landscapes (Richardson & Hynes, 2008). These changing economic landscapes include entrepreneurship education to a broadening market interest, including students in majors other than business (Solomon, Duffy, & Tarabishy, 2002), such as those enrolled in textile and apparel programs, thereby highlighting the need for this multiphase project.

**Developing the Educational Materials -- Phase I and Phase II**

To improve the quality and relevance of entrepreneurship education, Hynes and Richardson (2007) discussed the importance of linking the university entrepreneurship course to examples within the real world. The authors argued that entrepreneurship education must focus on areas relevant to industry and to economic growth. Educators must be prepared to modify courses to reflect the changing economic landscapes (Richardson & Hynes, 2008). These changing economic landscapes include entrepreneurship education to a broadening market interest, including students in majors other than business (Solomon, Duffy, & Tarabishy, 2002), such as those enrolled in textile and apparel programs, thereby highlighting the need for this multiphase project.

A total of 35 interviews were conducted across the five countries. Four interviews were conducted in Russia, six in Thailand, eight in South Africa, seven in India, and ten in the USA. All interviews were conducted at the primary business location and lasted between 1.5 and 3 hr, depending on the setting and the availability of the interviewees. The interviewees represented a range of types of companies, from small apparel producers to retail storeowners.

Discussion with business owners in all five countries focused on global issues they face on a day-to-day basis. Questions included are as follows: What are the challenges and benefits of running a small business? and How do you see the apparel industry changing in the future? Participants were also asked to share their perceptions of the skills and abilities needed by students to deal with these issues as future industry professionals. For example: What characteristics do you look for when hiring new graduates? Secondary data were compiled for each of the five countries, including descriptions of the nature and definition of small business in the country, the role of small business within the country's industry, and the relationship between small business and government.

Findings from the interviews and secondary data were then used to inform Phase II of the project. Phase II of the project focused on the development of educational materials and content-specific modules. A number of skills were identified by the industry professionals interviewed during Phase I as being critical for the success of small apparel business in the global marketplace (e.g., intercultural skills, networking skills, financial skills, and
communication). Notably, communication, networking, and quantitative analysis skills were also skills that were highlighted in a survey of hiring managers by the National Association of Colleges and Employers (NACE; Adams, 2014). Learning objectives related to these skills were incorporated into the educational materials for use within existing textile and apparel courses. Educational materials included compilations of readings, videos, collaborative projects, and case studies based on Phase I data.

Content-specific modules (e.g., global sourcing, consumer behavior, and product development) were then developed which to integrated these educational materials. A total of eight modules were created, seven of which were content specific and one of which consisted entirely of case studies. The modules were designed to be relevant to global industry needs and to prepare students to successfully address them. Specific issues currently faced by industry entrepreneurs and small businesses in various parts of the globe are dealt with through learning activities built into each module (e.g., financing new product development, entering a new market). Module activities were designed to be completed in class or online. The instructional materials include teaching resources, such as PowerPoint lectures, current reading lists, quizzes, assignments, links to pertinent videos and Web sites, and in-class activities. Methods used to assess student learning include quizzes, essays, in-class discussions, short-answer response, research papers, and collaborative projects.

**Delivering and Assessing the Educational Materials -- Phase III**

The researchers from the four U.S. institutions then introduced the seven content-specific modules developed in Phase II into related courses ranging from the sophomore to senior level. The completed modules are now available online (Global Higher Education Challenge Project http://usda-smegrant.blogspot.com/) for any interested instructors to review and adopt in their classrooms, either in full or selected learning assignments. Further description of the project's phases and modules is provided on the modules’ portal. Each of the seven content-specific modules was delivered in existing courses at the four U.S. universities. The seven modules were incorporated into seven different courses, with one university delivering three of the modules, one university delivering two of the modules, and two of the universities delivering one module each.

To evaluate the effectiveness of the modules for fostering entrepreneurial knowledge and small business skills, a survey was conducted during Phase III. An instrument was designed based on the competency areas that emerged from the primary and secondary data collection in Phase I; the instrument was used in module testing. The instrument is described in detail in the next section of the paper. The remainder of the paper focuses on Phase III of the project and includes presentation and discussion of the results of the assessment of module effectiveness for developing students’ global entrepreneurial knowledge and skills.

**Method**
Module effectiveness was evaluated using an instrument developed based on the findings from previous literature (Forret & Dougherty, 2001; Omerzel & Antoncic, 2008; Runyan, Droge, & Swinney, 2008) as well as the interviews conducted with participants from the five countries in Phase I of the project (Hodges et al., 2014). With institutional review board approval, a final sample of 287 undergraduate students participated in the survey. Participants were recruited from the sample of students enrolled in the courses in which the modules were tested at each of the four U.S. universities involved in the project. Participants completed a questionnaire two times (before and after module delivery). Because the objective of the current study was to examine the effectiveness of the modules as a whole rather than to assess each individual module's success, the data collected from all four universities were combined for the final analysis. The mean age of the participants was 21 years old; 93% of the participants were female.

Forty-seven questions designed to assess six constructs were included in the instrument (both pre- and postmodule delivery), with responses recorded on a scale of 1 = “strongly disagree” to 7 = “strongly agree.” Of these, two questions were reversed items, that is, I have difficulty in making decisions about my finances (financial skills) and I do not like to take risks (personality). Examples of other questions include the following: I have the ability to effectively work with people who are culturally different from me (intercultural social skills); I make efforts to expand and enrich my networks (networking skills); overall, I believe I do a good job managing my finances (financial skills); and I am interested in learning more about people who live in other countries (personality).

Entrepreneurial knowledge was assessed by asking students to record on a scale of 1 = “strongly disagree” to 7 = “strongly agree” their knowledge of marketing/retailing; logistics; strategic management; human resource management; business management; global trade policies and regulations; communication skills; ability to see the big picture; team work and building relationships; critical/analytical thinking; ability to influence and convince others; ability to manage self and time; willingness to face new challenges; and ability to think of new ideas and implement them (Forret & Dougherty, 2001; Omerzel & Antoncic, 2008; Runyan et al., 2008). Entrepreneurial skills were measured by asking students to record on a scale of 1 = “strongly disagree” to 7 = “strongly agree” their skills related to communication; the ability to see the big picture; team work; critical/analytical thinking; ability to influence others; time management; face new challenges; and think of new ideas (Forret & Dougherty, 2001; Omerzel & Antoncic, 2008).

Prior to use, the instrument was pretested to ensure reliability of the items developed to measure the six constructs (intercultural social skills, networking skills, financial skills, personality, entrepreneurial knowledge, and entrepreneurial skills). The reliability of all six scales on the questionnaire was greater than Cronbach's $\alpha = .70$ for the pretest as well as the pre- and postmodule surveys. To determine whether the modules had an effect on students’ entrepreneurial knowledge and skills, a repeated measures experiment design was used, wherein each participant completed the survey two times, once before introduction to the module and again after module activities were completed. A series of multiple regressions were conducted to
test whether the various dimensions addressed in the modules had an effect on students’ entrepreneurial knowledge and skills.

Along with the quantitative data collected from the pre- and post-test, seven open-ended questions, designed to facilitate reflection on the learning process and outcomes, were included on the post-test to collect qualitative data. Examples of questions include the following: What did you like most about the experience? Why? What was the most challenging part of the experience? Why? and What did you learn that will help you function as a future entrepreneur or small business owner in the global industry? Following standard protocol for qualitative data analysis, responses to the open-ended questions were typed, combined into a narrative, and analyzed for common categories and themes (Rubin & Rubin, 1995).

A total of four researchers (one researcher from each of the four partner U.S. universities) analyzed the data to identify overarching themes contained in the data. As previously stated, the goal of the current study was to examine the effectiveness of the modules as a whole. Therefore, each of the four researchers analyzed the data collected from all of the universities together. The four researchers’ analyses were compared and contrasted, and disagreements among researchers were discussed until agreement was reached. Each researcher's analysis was then merged with the others to form a consistent whole that addressed the purpose of the study along with key issues identified in the relevant literature (Kvale, 1996). The resulting interpretation provides depth to the overall understanding of the extent to which the modules fostered students’ global entrepreneurial knowledge and skills.

**Results**

**Quantitative Data: Pre- and Postmodule Tests**

Table 1 illustrates the multiple regression results for both premodule and postmodule tests. The first set of multiple regressions was conducted using entrepreneurial knowledge as the dependent variable and students’ intercultural skills, networking skills, financial skills, and personality as independent variables. Results showed that before students were exposed to the modules (pretest), only networking skills had a positive effect on their entrepreneurial knowledge ($\beta = .30$, $t$-value = 4.81, $p < .001$). After the students were exposed to the modules (post-test), in addition to networking skills, financial skills were found to have positive effects on their entrepreneurial knowledge ($\beta = .33$, $t$-value = 5.31, $p < .001$; $\beta = .19$, $t$-value = 3.26, $p < .001$). In both models, students’ networking skills had the highest predictive power for entrepreneurial knowledge.

Another set of multiple regression analyses was conducted to test whether students’ entrepreneurial skills were predicted by their intercultural skills, networking skills, financial skills, and personality. Results showed that prior to being exposed to the modules (pretest), students’ entrepreneurial skills were positively predicted by their intercultural skills ($\beta = .31$, $t$-value = 6.15, $p < .001$), networking skills ($\beta = .25$, $t$-value = 5.33, $p < .001$), and personality ($\beta$
After students were introduced to the modules, results from the postmodule tests indicated that intercultural skills ($\beta = .25$, $t$-value = $4.38$, $p < .001$), networking skills ($\beta = .33$, $t$-value = $6.17$, $p < .001$), financial skills ($\beta = .10$, $t$-value = $2.03$, $p < .05$), and personality ($\beta = .20$, $t$-value = $3.35$, $p < .001$) positively predicted students’ entrepreneurial skills. In the premodule tests, personality played the most influential role in students’ entrepreneurial skills; after the modules, students’ networking skills showed the highest predictive power (Table 1).

**Table 1. Results of Pre- and Post-Test Responses of Students ($N = 287$)**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Entrepreneurial Knowledge (6 Items) $\beta$ ($t$-Value)</th>
<th>Entrepreneurial Skills (8 Items) $\beta$ ($t$-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Post-Test</td>
</tr>
<tr>
<td>Intercultural Skills (6 items)</td>
<td>.00 (0.00)</td>
<td>.03 (0.51)</td>
</tr>
<tr>
<td>Networking Skills (10 items)</td>
<td>.30 (4.81)**</td>
<td>.33 (5.31)**</td>
</tr>
<tr>
<td>Financial Skills (5 items)</td>
<td>.10 (1.67)</td>
<td>.19 (3.26)**</td>
</tr>
<tr>
<td>Personality (12 items)</td>
<td>.09 (1.27)</td>
<td>.03 (0.48)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.14</td>
<td>.20</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.12</td>
<td>.19</td>
</tr>
</tbody>
</table>

F(4,274) = 10.66, $p < .001$; F(4,259) = 16.48, $p < .001$; F(4,274) = 64.81, $p < .001$; F(4,259) = 45.08, $p < .001$.

NOTE: *$p < .05$; **$p < .01$; ***$p < .001$.

In general, students’ networking skills were found to be crucial for enhancing entrepreneurial knowledge and skills. Although financial skills did not seem as critical in developing entrepreneurial knowledge and skills before students were exposed to the modules, results indicated that after the students were exposed to the modules, an increase in financial skills helped predict entrepreneurial knowledge and skills.

Qualitative Data: Thematic Interpretation
Three thematic areas surfaced from the responses to the seven open-ended questions that enhance the findings of the regression analyses and highlight students’ overall experiences with the modules: (i) running a small business, (ii) developing a global outlook, and (iii) thinking like an entrepreneur. Within each theme, participants’ views on the learning opportunities and outcomes provided by the modules are discussed. To protect confidentiality, numbers were assigned to respondents and were used in place of names throughout the interpretation.

Running a Small Business

Responses point to the extent to which the modules helped students to become more aware of what is required to start and maintain a successful small business. The two main issues that surfaced were the degree of hard work that is required to get a business off of the ground, but even more importantly, the effort that is required to ensure its ongoing success, particularly the role of managing the financial side of the business.

Students frequently used words such as “stressful” and “hard work” in reference to what it means to run a business. As one wrote, “There is a lot of hard work that needs to be done in order to run your own business. A LOT!” (S143). Along with the recognition of the hard work required, some responses indicated recognition of the positive outcomes of owning a business, using such terms as “exciting” and “rewarding.” Some even realized that owning a business was a possibility as a result of the module activities: “It never occurred to me that I might have the opportunity to open my own business one day” (S205). Others had the opposite response, in that after completing the activities, they realized that they did not want to own a small business, but the process helped them to understand the kinds of industry jobs they wanted to pursue after graduation.

Student responses indicated awareness of the fact that, while there are many sources of support available to start a business, the challenge for the small business owner comes in making that business successful for the long term: “[It] is simple to actually start a business. I learned how difficult it is to have a successful, thriving business” (S2). Likewise, the realization that the success of the small business owner lies in his or her ability to grow the business to achieve the desired outcome surfaced: “You can't always start out where you want to, but have to work your way up to where you want to be” (S67).

Several students responded that the activities helped them see the scope of the need for financial skills, or as one put it, “Seeing the aspects that require costs in a business” (S14). Another student’s response connected the skills learned in managing personal finances with those of a company, should she eventually own a business, pointing to how important it is to “learn how to manage your own finances to make it easier handling [those of] a company” (S53). Although small businesses form the majority of businesses in the U.S. economy, one student pointed out that this has its negative side, in that “Small businesses have to work harder because their competition is [tougher]. They need to target customers and keep them loyal” (S172).
Competition comes not only from the many other small businesses but also the big companies, particularly when competing in the global apparel industry.

Developing a Global Outlook

On the whole, students responded that the module activities offered a great way to learn about the different countries involved in the global apparel industry and to understand how businesses are interconnected and affected by the global economy and trade. Many students responded that they think it is important to be aware of what is happening globally. As one student said, “Learning about different cultures is important because the world is tied together” (S43). The value of looking outside of one's own cultural context and considering what it is like to live and work in another country became apparent. One student responded: “I enjoyed learning about other countries and the hardships that they deal with and how they handle them” (S47). A similar response reflects the idea that starting a small business might seem difficult, until one looks at the issue from a more global perspective: “I thought it was difficult before to start a business in the U.S., but now I understand that [small firms] in other countries can sometimes deal with even more challenges” (S22).

Some responses indicated an awareness of the value of understanding other markets for the small business, particularly if there is a desire to expand into new locales: “There has to be research about other countries’ ways and standards before ever going into business in and/or with another country.” Other students recognized that it is helpful to be knowledgeable of laws and regulations as these can translate into costs for the small business. For example, one student stated that as a small business owner, it is important to “know everything about the country you intend to work with and all of the costs!” (S89).

An interesting issue surfaced across students’ responses. This issue summarizes the overall purpose of the project: awareness of small business as a global industry phenomenon, because each small business, while independent, is also part of an interconnected network of global textile and apparel businesses. As one student succinctly wrote, “This experience helped me understand how small businesses help shape the entire global industry and are the backbone of it” (S100). Moreover, some students noted how the global nature of this network has a lot of bearing on the U.S. industry, as it helps to illustrate the big picture of U.S. small business and what this means for those interested in careers in apparel: “I liked learning about the various countries’ apparel industries and how it all affects the USA. It will benefit me in the future” (S133).

Thinking Like an Entrepreneur

Responses to the open-ended questions suggest that the learning activities helped to open students up to the pros and cons of not just starting and maintaining a small business, but what it takes to be an entrepreneur. As an added bonus, some students saw how this viewpoint helped
them be more creative in their approach to understanding the industry as a whole. For example, one student pointed out the broader applicability of what she was learning, “We [were able] to understand how the government truly affects small business. I think it is important for everyone, not just entrepreneurs, to know” (S201). This was also the case for another student who indicated that she did not expect to like the learning experience provided by the module, however: “I was shocked that I enjoyed it. I thought this would be boring, but it helped me change the way I think about the apparel business” (S18).

The notion that success often comes from who rather than what one knows surfaced in students’ realization that building a network is at the core of how successful entrepreneurs operate. Although some students do not enthusiastically embrace the prospect of networking, one student admitted that “making connections is good for your career and future goals” (S37). Many individuals within an entrepreneur's network are business contacts, while others are friends and family members. The road to success can be a difficult and lonely one, and as one student realized, entrepreneurs often have to look to others for support and encouragement: “I learned that there is a huge advantage in reaching out to those in your life and seeking support” (S54). Deliberately making and maintaining connections with others can also expand one's own thinking. Interaction with others helps a person to be more open to opportunities and possibilities as well as to seeing where others may be coming from. One response indicated an awareness of the fact that module activities were specifically designed to prompt such interaction: “The in-class activities encouraged bonding, discussion and integration. This was interesting and helped me understand others’ viewpoints” (S72).

Along with being more open to happenings, students’ responses indicated awareness of the fact that because entrepreneurs often have to do more with less, they need to work smart and to accept that success means taking risks, as both qualities are particularly important when running a small business. As one student wrote, “There are a lot of components to keeping a small business relevant in the economy. You have to make smart choices and take risks at the right moment to stay afloat” (S114).

Regardless of whether students want to start their own businesses, become entrepreneurs, or do both, the modules were meant to expose them to the opportunities and challenges these professional paths present within the global industry. In keeping with the focus in the literature on entrepreneurial education, through active learning, responses indicate that the modules offered students a way to learn and build skills that was real to them. As one student stated, “The experience provided real-life scenarios that are relatable to one's future career” (S12).

**Discussions and Implications**

According to recent Association of International Educators statistics, about 1% of all students enrolled at institutions of higher education in the U.S. study abroad (NAFSA, 2011). This means that about 99% of students will not engage in an international exchange experience while in college. Modules developed through this project introduced students to entrepreneurial
knowledge and small business skills and served to expand their global perspective, a point reinforced by student responses to the module activities. Although these activities do not replace the real-life experiences of being in another country, at the very least they provided students’ glimpses of how things may work in other parts of the world.

The results of the quantitative and qualitative parts of Phase III of this study provide evidence that exposure to the educational modules created in Phase II had a positive impact on undergraduates’ entrepreneurship knowledge and skills. Given the likelihood that graduates from textile and apparel programs will work for or with small businesses in the USA (U.S. Bureau of the Census, 2011) or abroad (Davis, 2008; Vibhakar & Smith, 2004), awareness of and experience with the information presented in the modules will be useful for their future success in the industry.

Prior to completing the modules, the students indicated that they had an idea that networking skills were important to be successful as an entrepreneur. As shown through analyses of the quantitative and qualitative data, this notion seems to have been solidified through their involvement with the learning modules. It is not surprising that these undergraduates identified the key role that networking plays for small business success. The millennial generation, of which these students are a part, is familiar with the concept of networking with other people, particularly on social networking Web sites like LinkedIn (Lenhart, Purcell, Smith, & Zickuhr, 2010). While entrepreneurs have emphasized the usefulness of networking in general (Greve & Salaff, 2003), the effectiveness of social networking Web sites in particular for building and maintaining relationships with business partners and customers is not guaranteed (Lacho & Marinello, 2010). As done in the learning modules, it is important to integrate the differences and appropriate uses for the various types of social networks at the entrepreneur's disposal within coursework designed to foster networking skills.

The undergraduates also recognized, prior to completing the modules, that working for or with small textile and apparel firms required intercultural skills and certain personality traits. The quantitative data confirmed the importance of intercultural skills in developing entrepreneurial skills. The participants seemed to understand that the industry is global in nature; however, as the qualitative data revealed, completion of the modules reinforced this notion in their minds. The students realized that the likelihood that they would be working with individuals representing cultures different from their own was high. Similarly, the learning modules reinforced students’ understanding of the entrepreneurial personality. That is, they seemed to be aware, before completing the modules, of the idea that individuals with certain personality traits would tend to be more successful in entrepreneurial endeavors. However, the quantitative assessment of the modules revealed that after completing the modules, the participants tended to downplay the importance of personality traits in favor of other skills. This observation is consistent with previous research that suggests that, while certain personality traits, such as extraversion, may serve entrepreneurs well, the success of an entrepreneur is not based solely on his or her personality (Ciavarella, Buchholtz, Riordan, Gatewood, & Stokes, 2004; Taormina & Lao, 2007).
Of more importance than personality traits to the success of a small business venture may be financial skills (Heilbrunn, 2004; Rogoff, Lee, & Suh, 2004). After completing the modules, the students seemed to realize that, without a sound financial plan, a small business would not succeed. Both the quantitative and qualitative results revealed that the modules helped students appreciate the significance of financial skills to the sustainability and long-term growth of an entrepreneurial venture. Because financial skills will benefit undergraduates regardless of the position they obtain after graduation, textile and apparel educators could consider adding material related to business finances to existing courses, much like that found within the different learning modules. One of the most notable findings of this research reinforced that of the NACE survey data (Adams, 2014): universal skills, such as networking, financial acumen, and effective communication, can be learned across academic disciplines.

Limitations and Future Research

Given the high number of small textile and apparel firms, and the large percentage of small firms in general within the USA and abroad, it is likely that graduates will work for a small business or partner with small firms in the manufacturing process. Moreover, because many students in textile and apparel programs aspire to eventually own their own businesses (Hodges & Karpova, 2009), building the skills needed to create and maintain a successful enterprise must be an essential part of their undergraduate experience. This project offers several means of integrating opportunities designed to foster such skills for professional development and success.

There are limitations that can be addressed in further research on this topic. Notably, this study was conducted with U.S. undergraduate students at one point in time. Future research could be conducted with undergraduates in different countries to compare the effectiveness of the modules for teaching textile and apparel undergraduates around the globe about entrepreneurship and small business. Furthermore, researchers interested in career trajectories could conduct a longitudinal study with participants to investigate the impact of the modules or similar kinds of educational experiences on the success of graduates employed in small businesses.

References

