

**Entrepreneurial education for professionals:
Examples and lessons learned from nursing, music and education.**

A. Introduction

(Raffaella Borasi, Dean of the Warner School of Education, University of Rochester)

This symposium was organized to examine the potential of entrepreneurship education to strengthen the preparation of professionals in all fields, especially when we strive to develop capacity “towards civic responsibility” – in the spirit of the theme of this annual meeting. The symposium capitalizes on experiences developed at the University of Rochester in the context of the Kauffman Campus Initiative on Entrepreneurship Education (KCI hereafter) – one of eight such initiatives funded in the first round of a 5-year grant from the Kauffman Foundation and involving all academic units on the campus. Contrary to the common interpretation of entrepreneurship as “starting a new business,” our project assumed a much broader definition of entrepreneurship – as discussed later. At the core of this symposium will be presentations from representatives from the schools of nursing, music and education, who will briefly report on how their respective schools interpreted and approached entrepreneurship, the entrepreneurship education initiatives they developed and the insights gained from these experiences. These presentations will be followed by the comments of a discussant, and then by an interactive session involving all participants.

While I will say more about the scope and structure of this interactive session when we get ready to engage in it, I would like you to know upfront that we hope to devote at least half an hour to it, so as to take advantage of the unique opportunity of having so many people from different fields together. The interactive session will focus on the following questions, which I would like you to keep in mind as you hear the presentations and the discussants’ comments:

1. *What is entrepreneurial in your own practice?*
2. *What entrepreneurial concepts and skills could most benefit professionals in your field? Why?*
3. *How could these concepts and skills be best introduced to professionals in your field?*
4. *How are changes in your profession fostering (or impeding) the growth of entrepreneurial practices?*

Before introducing the various presenters, I would like to take a few minutes to describe the context that is common to the experiences they will relate – that is, the Kauffman Campus Initiative on Entrepreneurship Education developed at the University of Rochester.

This transformative campus-wide initiative started in 2003 as the Kauffman Foundation invited thirty universities – including ours – to submit proposals for a 5-year grant (up to \$5 million) to develop opportunities to learn about entrepreneurship for all students on campus. With the ultimate goal of empowering more people to be entrepreneurs in the “traditional” sense of starting new businesses, the Foundation’s intent was mainly to ensure that students majoring in all fields

– not just students in the business school – would be exposed to entrepreneurship so that they could consider it as an option later on in their life. From the very beginning, however, the University of Rochester was interested in a broader interpretation of entrepreneurship. The definition of entrepreneurship we eventually adopted – “transforming ideas into enterprises that generate economic, cultural and/or social value” (Green, 2005) – opened up new possibilities to strengthen the preparation not only of those professionals that want to start their own business, but also those who want to become “agents of change.”

Let me say a little bit more about this broader interpretation of entrepreneurship, as it informed all the entrepreneurship education initiatives we will report on. Most people tend to associate the term “entrepreneurship” with the starting of new businesses. In contrast, more recent definitions of entrepreneurship in the literature propose a view of entrepreneurship more broadly as a process that involves all the functions, activities and actions associated with recognizing opportunities and taking concrete actions to capitalize on them (Timmons, 2004; Bygrave & Zacharachis, 2004). In particular, there has been a growing interest in the concept of “social entrepreneur” – described by Bornstein (2004) as “people with new ideas to address major problems who are relentless in the pursuit of their visions, people who simply do not take ‘no’ for an answer, who will not give up until they have spread their ideas as far as they possibly can” (p.1). We suggest that assuming a broader definition of *entrepreneurship* opens up to new possibilities to strengthen the preparation not only of those professionals that want to start their own business, but also those who want to become “agents of change” to more effectively address social problems and improve human conditions as part of their job, or to enrich the world intellectually and culturally. We chose to adopt the definition of entrepreneurship as “transforming ideas into enterprises (i.e., sustainable initiatives) that generate economic, cultural and/or social value” (Green, 2005) because it explicitly captures the potential of entrepreneurship to add value in a few key different ways – *economic, cultural and social* – and because it puts emphasis on the process of *transforming ideas into enterprises (i.e., sustainable initiatives)* – a process we believe professionals in all fields could benefit from becoming more familiar with and adept at.

Indeed, while early research on entrepreneurship studied either the traits/characteristics of entrepreneurs (McClelland & Winter, 1969; Brockhaus, 1982) or the contextual factors affecting entrepreneurial activity (Schumpeter, 1934; Kirzner, 1979, 1989; Casson, 1982), more recent studies on entrepreneurship have challenged this artificial dichotomy to offer a more comprehensive approach to study entrepreneurship, one that focuses on entrepreneurship as a *process* (Timmons, 2004; Baron & Shane, 2005). At the core of the “entrepreneurial process” is the development of enterprises or innovations through a process that involves identifying and evaluating opportunities, developing carefully thought-out plans, implementing these plans, and monitoring and evaluating their results (Timmons, 2004). A number of attitudes, skills and practices have also been identified in the literature on entrepreneurship as supporting these various stages.

Recognizing the new possibilities that a broader definition of entrepreneurship opens up for the preparation of professionals in all fields, this symposium was organized to begin a conversation about what entrepreneurship education could look like in various fields and what benefits it could generate. So, we will now hear how three quite different professional schools – a school of nursing, a school of music, and a school of education – took on the challenge of figuring out ways

in which entrepreneurship could strengthen the preparation of the professionals they prepared. It is our hope and expectation that these stories will inspire the audience with new ideas about how entrepreneurship education could play out in their own field.

Each presenter will speak for about 10 minutes and we will welcome a few questions at the end of each presentation, although we will be able to do so for only a few minutes in order to ensure that we leave 30 minutes for the interactive session at the end.

In the interest of time, I will also let each presenter and discussant introduce him or herself.

B. Preparing nurses to be innovators within the health field

(Pat Lindley, Faculty in the School of Nursing, University of Rochester)

If I were to tell you about a nurse who specialized in hospital reform, nursing education, community health, intervention programs, and biostatistics, I could be describing a University of Rochester alumnus, or Florence Nightingale, the founder of modern nursing in the 1850s to early 1900s. If I were to tell you about a nurse who designed and implemented a community-based, social entrepreneurship program, I could be describing a nursing alumnus, or Lillian Wald, founder of the Henry Street Settlement in New York City in 1893. If history were known, then it would be of no surprise that a traditionally female-dominated professional practice discipline would be an early adopter of entrepreneurship for education, research, and clinical endeavors.

Nursing's rich history in health care innovation is best exemplified in the 20-year history of entrepreneurship at the University of Rochester School of Nursing. To fulfill the objectives of this symposium today, I will first share a brief history of the School's Center of Nursing Entrepreneurship, including an overview of its businesses, model of nursing entrepreneurship, and entrepreneurship outcomes system. Afterwards, I will describe the framework for entrepreneurship education at the School and its Center. Throughout this presentation, I will comment on the decisions made and the insights gained in creating a culture of Unified Entrepreneurship at the School of Nursing.

Similar to a number of nursing schools at the time, in 1988, the School established a Community Nursing Center (CNC) in order to provide faculty with a clinical site for practice and for educating students. By the mid-1990s, the CNC, now a professional corporation, shifted focus from the typical academic health center model to a revenue-generating model and from the provision of primary care services to the elderly to community health education, health promotion, illness prevention, and disease management programs. By 1999, the School of Nursing faced a financial crisis and mobilized for extensive self-evaluation and bold strategic planning in its tripartite mission of education, research, and practice. During this difficult time, the CNC remained financially successful and supportive of the School's mission through continued development and growth of businesses and initiatives. The School joined in the Kauffman Foundation initiative and establishment of University of Rochester's Center for Entrepreneurship in 2003. The School was the first nursing program to participate in a Kauffman initiative. In 2004, the CNC was renamed the Center for Nursing Entrepreneurship, becoming the first of its kind in the nation and world.

The CNE operates as a corporate entrepreneurship model, specifically a producer model, in which dedicated funds support a formal center for product, service, and business development (Wolcott & Lippitz, 2007). Annually, the CNE generates \$3 to \$4 million in gross revenue, contributing a percentage of net revenue to the School's educational and research missions. To provide a consistent revenue stream for economic sustainability, the School and its Center have demonstrated successful fiscal outcomes in multiple methods of revenue generation in academic entrepreneurship: "donations, endowments, external programming, grants, academic programming and commercialization of technology" (Finkle, Kuratko, & Goldsby, 2006, pp. 184-5).

The CNE has launched and operates four businesses: Edvantage, a center for lifelong learning and career development; Health Checkpoint, offering wellness services to corporations and community agencies; Nutrition Weight Management services for individuals and corporations; and Passport Health, a franchised travel health clinic. In 2006, the CNE launched its first start-up company, the National Forensic Nursing Institute, a company based in Oklahoma, providing educational services and clinical products for forensic nurses. Plans are underway for two more businesses: Health E Novation, specializing in testing novel models of technology-enhanced health care; and Entrepreneur Nurse, a web-based membership organization, similar to Eastman School of Music's Polyphonic.org (described later). In addition to the businesses, the CNE operates a school-based health clinic at an urban high school with partial support from the state health department. During the fall, the CNE sponsors numerous flu prevention clinics throughout upstate New York.

Clearly, the major outcome of the CNE is revenue generation, and the CNE has fulfilled budgetary projections for the School and its own operations. Another major outcome of the CNE is scholarship on entrepreneurship, as exemplified by development of a conceptual model and an outcomes management plan. In the summer of 2007, the CNE leadership team developed the Rochester Model of Nursing Entrepreneurship, which incorporates the discipline's overarching concepts of person, environment, health, and nursing and the School's Unification Model, integrating education, research, and practice. Versions of the Timmons Model of the Entrepreneurial Process (Timmons & Spinelli, 2007) also influenced model development. During a similar time period, the Entrepreneurship Outcomes System (EOS) was designed and is currently undergoing a "pilot" testing. Similar to the framework described by Luke, Verreynne, and Kearins (2007), the EOS measures fiscal and other value outcomes at multiple levels for both the periodic evaluation of entrepreneurship outcomes for the School's strategic plan and for ongoing quality improvement of the CNE as a whole and for each of its businesses and initiatives. Both the model and the outcomes system explicitly use the University's definition of entrepreneurship, modified for the nursing discipline: "the transformation of ideas into innovative educational, research, practice, and business enterprises that create value."

A primary strategy underlying the Center's success has been diversification. In the early years of the CNC, when it served as a faculty practice site and student learning environment, revenue from fee-for-services of primary care to the elderly covered costs. With the CNC as a professional corporation, the shifting to community health programming with multiple methods of revenue generation was critical to sustain the Center. After 9/11, as the travel health market declined, the Center's Passport Health Clinic operated in the red. The success of other businesses

covered the losses, while maintaining the contribution to the School and supporting continued growth of the Center. Investing a portion of revenue into novel initiatives, the Center functions as a proof of concept center (Gulbranson & Audretsch, 2008) with its businesses as real-world laboratories for testing new products, services, and models of health care.

The overview of the School's and the CNE's history with nursing entrepreneurship offers insight into the context from which entrepreneurship education emerges. Successful revenue generation supports the School's tripartite mission, along with continued innovation and growth at manageable risk with the CNE. Economic sustainability affords the resources to create a culture of Unified Entrepreneurship, scholarly entrepreneurial initiatives in education, research, and practice.

The School of Nursing's initiatives in entrepreneurship education consist of seven complementary endeavors, all of which are available for students and faculty in the School and open to interdisciplinary students, faculty, and members of the community. The principle of diversification, advantageous for the businesses, has also guided the creation of learning opportunities on entrepreneurship.

1. *Credit-bearing courses.* These courses are required or elective within one or more of the academic nursing programs. In these courses, entrepreneurship content is either the focus of the course or is incorporated as a module or section with a broader focus. The CNE leadership team has been developing two new courses, 1-credit-hour *Foundations in Entrepreneurship for Healthcare Practice* and 4-credit-hour *Applications of Entrepreneurship for Healthcare Practice*. (These new courses replace 486 *Become a Successful Health Care Entrepreneur* and 484 *Marketing Essentials for the Health Care Entrepreneur*. Both former courses received positive student evaluations, and content from both is incorporated into the new courses.) The *Foundations* course will be offered online to nursing and other students and present content on the history, major concepts, and principles of entrepreneurship. A 4-hour portion of this 1-credit *Foundations* course will soon be required for all matriculated School of Nursing students to complete at some point in their degree program. The *Applications* course is designed as a hybrid (online and in class) course for nursing and other students interested in applying entrepreneurial knowledge and skills to developing health care opportunities of their interest.
2. *Continuing professional education.* The CNE's Edvantage, center for lifelong learning, has offered a variety of courses as continuing professional education for nurses and others in the University and community. In addition, Edvantage offers career development services. Examples of some of the repeated continuing professional education courses are the Registered Nurse First Assist (surgical) program, the Registered Nurse Refresher program, Sign Language for Health Professionals, and Spanish for Health Professionals.
3. *Laboratories.* The CNE has served as a real-world laboratory in the design, testing, and evaluation of entrepreneurial initiatives and offers various program and research learning experiences to students. The CNE's Well Balanced Program has worked with one post-doctoral research fellow and one undergraduate nursing student, Passport Health with one doctoral nursing student and two undergraduate nursing students, and Nutrition Weight

Management with one undergraduate nursing student. The CNE leadership team has served as mentors to doctoral nursing and education students and other university undergraduate and local high school students.

4. *Entrepreneur educators.* Nurses and members of other disciplines are welcome to partner with Edvantage to develop and teach a course. Educators receive a percentage of the course revenue for their services. New courses required the review and approval of the School's Curriculum Committee and faculty body. Many of these courses have a hybrid design, some content in a classroom setting and some online.
5. *Entrepreneur Nurse.* Once operational, students and faculty at the University of Rochester, as well as interested nurses globally, will be able to join a web-based international organization dedicated to promoting nursing entrepreneurship. One function of this organization will be on entrepreneurial education for members through online programming, consultation networks, and access to resources.
6. *Business development.* The CNE offers business development services to students and faculty in nursing and other disciplines and to members of the community. As conceptualized in the Rochester Model of Nursing Entrepreneurship, the prospective entrepreneur works closely with experts in the CNE and the School in consultation with an Advisory Group to develop their idea into an opportunity and to transform the opportunity into a value-generating venture. During this partnership, experts mentor these new entrepreneurs, supporting not only the development and growth of their venture, but also of their entrepreneurial knowledge, skills, and attitudes.
7. *Innovation networks.* All students, faculty, staff, alumni, and members of the community have multiple opportunities to attend and participate in workshops, paper presentations, conferences, meetings, etc. on entrepreneurship topics. The University's Center of Entrepreneurship and its various schools and departments offer many of these educational events, in addition to those sponsored or co-sponsored by businesses, organizations, and agencies in the community.

C. Preparing tomorrow's musicians to succeed in a world with changing musical needs and career opportunities

(Ramon Ricker, Senior Associate Dean for Professional Studies and Director of the Institute for Music Leadership at the Eastman School of Music, University of Rochester).

In 1993, Robert Freeman, then the Director of the Eastman School, challenged the faculty to think about the state of the Arts and Eastman's place in it. From these talks creative ideas bubbled up from the faculty. These ideas took on a collective name--the Eastman Initiatives. We observed that students were coming to Eastman with greater facility on their instruments, but with diminished collateral skills—keyboard, ear training, sight-singing, etc. In addition, their ability in writing English was also weaker. We realized that music students were being trained in essentially the same manner as 50-75 years ago and that times were changing. Students were seeking more non-traditional eclectic careers.

As a group we determined that a new kind of professional preparation to the curriculum was needed. We needed a bridge between the Ivory Tower and the Real World. The faculty imagined a curriculum that was based on more than just dexterity and artistry on one's instrument. They imagined one that included experience and discussion around topics such as advocacy, business sense, diplomacy, communication, opportunism, imagination and tenacity—all necessary entrepreneurial skills and traits. We wanted to nurture in our students a sense of initiative and leadership rather than nostalgia for the past, or even worse despair about the changing state of classical music.

One of the Eastman leaders in this thinking was Douglas Dempster. He lobbied for a collection of courses that would include the following headings: Performance, Technology, Arts Advocacy and Career Development. In 1996 the Arts Leadership Program (ALP) was created and in 1998 the *Catherine Filene Shouse Foundation* gave a major three-year grant of over \$3 million to provide spendable earnings to be used to develop and sustain an arts leadership curriculum.

From the success of the Arts Leadership Program an even more encompassing entity was imagined by the Eastman Dean James Undercofler, and in 2001 *The Andrew W. Mellon Foundation* awarded a 3-year grant of \$1 million to Eastman. This support was used to strengthen the School's capacity to provide future generations of musicians with the skills, experience, and understanding needed to assume the non-traditional roles of the new musician in the professional music world. The single greatest outcome of the grant was the creation of the Institute for Music Leadership (IML) and the position of Senior Associate Dean for Professional Studies. Eastman faculty member Ramon Ricker was named to that position and he assumed the Directorship of the IML. This grant also provided for (1) outright funds for ALP, (2) Orchestra Studies Diploma--unique partnership with the Rochester Philharmonic Orchestra, (3) creation of a Certificate in College and/or Community Music Teaching, (4) Music for All--a community outreach program, (5) OSSIA--a student run new music ensemble and (6) participation in the Mellon Foundation's Orchestra Forum. (ESM was the only higher education institution included in this group of thirteen orchestras.)

From the outset the IML was entrepreneurial. It championed and promoted entrepreneurial thinking and ideals. It encouraged its students to have a broad education, an evangelistic spirit, a strong belief in themselves, a passion to follow their dream, to do something they like--not just to do it, to envision the future and to think big. This philosophy was recognized by the Kauffman Foundation and in 2004 as part of the University of Rochester's \$3.5 million, 5-year grant from the *Ewing Marion Kauffman Foundation* to integrate entrepreneurship education in academic activities, \$700,000 in grant funds were allocated to Eastman. Eastman has used these funds to strengthen its entrepreneurial curriculum, and to be an influencer among university and music school leadership. In November 2007 at the National Association of Schools of Music Conference, Kauffman funds were used to present a pre-conference workshop on entrepreneurial leadership. Sixty music school deans and senior administrators attended. Building on the success of this workshop a follow up workshop is planned for January 2009 in Rochester. In addition, as part of his 2008 strategic plan, Dean Douglas Lowry has committed to the creation of a Center for Music Entrepreneurship that will reside within the IML.

The previous grants outlined above helped Eastman leverage its most recent major gift: A \$1.2 million gift from the *Symphony Orchestra Institute*. The financial, physical, and intellectual assets of the *Symphony Orchestra Institute* was conveyed to the Eastman School of Music and the Orchestra Musicians Forum (OMF) was established under the IML. On April 10th, 2006, the OMF unveiled www.Polyphonic.org <<http://www.Polyphonic.org>>, the ultimate online companion for today's professional orchestral musician. Currently, again with Kauffman support of \$25,000, the OMF is developing two online courses—*How to Negotiate an Orchestra Contract* and *Entrepreneurship in Music*.

The Eastman School philosophy around music and entrepreneurship has always been that first and foremost we are helping educate musicians to achieve a high level of performance and scholarship—breadth and depth. Upon that base we build leadership and entrepreneurship. Put another way, we want to make sure our graduates have an opportunity to gain real-world savvy i.e., entrepreneurial skills, while still in school and before they fully begin their professional life. For that reason our entrepreneurial courses are usually one credit, (sometimes two) and address specific areas. They are taught by experts, often outside of academia, who have careers in the areas that they teach, and many of the instructors are Eastman staff employees. A list of these entrepreneurial offerings has been provided in a handout (*see Appendix*).

C. Preparing educators to be more effective agents of change

(Raffaella Borasi, Dean and Frederick Jefferson, Emeritus Professor, Warner School of Education, University of Rochester)

Unlike the other two professional schools, the Warner School of Education did not have a history with entrepreneurship before the beginning of the KCI project. However, the broader definition of entrepreneurship assumed in the project enabled the school to immediately recognize a valuable connection with its mission of “preparing educators as leaders and agents of change,” committed and able to bring about the changes needed to improve education and thus better serve students and their communities. Educators who are agents of change are essentially involved in initiating and implementing innovations; since this process is at the core of what entrepreneurs do, it follows that educators should also be able to benefit from concepts, attitudes and skills used by successful entrepreneurs.

As this concept was relatively new to the field of education, the school first established a Study Group comprised of faculty and doctoral students interested in studying what it means and what it takes to be entrepreneurial in the field of education. Based on the findings of the Study Group, two elective graduate courses were developed (“Entrepreneurial Skills for Educators” and “Grant-writing and Other Funding Strategies for Educators”), as well as shorter entrepreneurship education modules to be included in required courses in the preparation of teachers, counselors, K-12 school administrators and higher education leaders, respectively.

We would like to share some highlights of what we learned from these experiences by briefly reporting on:

- What we think educators should know about entrepreneurship and why.
- How we created some courses and modules to introduce these ideas to different groups of educators prepared at our school.

- Some insights about entrepreneurship education that we gained in the process.

What should educators know about entrepreneurship and why?

Our original belief that the study of entrepreneurship could be valuable for educators was based on the promise of a broader conception of entrepreneurship to provide new insights about what it takes to be more effective innovators, as definitions such as Green's suggest striking parallels between the practices of traditional entrepreneurs and those of successful agents of change in education. Even more specifically, when we looked at educational leaders who have transformed the institutions they lead (whether they are school principals, district superintendents or university deans), we realized that they did not just have good ideas for innovations, they were also skilled at evaluating and seizing opportunities, developing and implementing well-thought out plans, building coalitions, securing resources, evaluating and managing risk, creating a culture that encourages creativity and initiative – some of the very same skills that characterize successful entrepreneurs in other fields. The most valuable employees in a successful educational institution (whether faculty or staff) are often those who demonstrate creativity, initiative, and most importantly a penchant for developing initiatives that add value to the organization and its mission – “traits” that have also been identified as characteristic of entrepreneurs and intrapreneurs across fields.

At the same time, once we recognize the potential contributions that entrepreneurship more broadly conceived can provide educators, a number of interesting questions arise: What forms can entrepreneurship take on in education, across different fields and positions? What kind of “value” can educators add by being entrepreneurial? Which specific entrepreneurial attitudes, skills and practices may be most useful for educators? Can these attitudes, skills and practices be acquired, and if so, how? How do entrepreneurial educators balance fiscal responsibility with commitment to their educational mission? What kinds of contextual variables can support or hinder entrepreneurial behaviors in educators?

Unfortunately, there was not much available in the current literature to address these questions. Indeed, we found only one book – Brown & Cornwell's *The Entrepreneurial Educator* (2000) – that begins to address what it means for educators to be “entrepreneurial” in their job and what advantages this could bring to the field of education. This book was helpful for us to begin to identify benefits of being “entrepreneurial” for educational leaders and educational institutions, attitudes, behaviors and skills identified as “entrepreneurial” in business or other fields that educators should consider using, and fundamental differences between the fields of education and business that should be taken into consideration when applying the notion of entrepreneurship in education. Yet, the book does not provide any concrete guidelines or tools to be more effective as an entrepreneurial educator, nor does it offer in-depth examples of entrepreneurial educators or educational organizations to help us understand more concretely what it means to be entrepreneurial in the field of education.

To fill these gaps, we decided to undertake a series of case-studies of *entrepreneurial educators* – which we defined as educators who have been able to consistently transform ideas into initiatives that have added value to their institutions and the clients they serve. To date, our Kauffman Study Group on Entrepreneurship Education has completed seven such case-studies, which purposefully featured different professionals within education – including K-12 school administrators (a principal and an assistant superintendent for instruction), university academic and administrative leaders (an academic dean and the director of the campus libraries), a teacher,

a social activist (the CEO of a not-for-profit organization) and also two educators who started their own for-profit business providing educational services.

As a result of these case-studies, we have identified a number of *strategies* used successfully by these entrepreneurial educators to engage productively in the various stages of the process of initiating an innovation, that is:

1. Coming up with ideas for worthwhile initiatives
2. Evaluating whether the idea is worth pursuing
3. Making detailed plans for the initiative
4. Gathering the necessary resources to launch the initiative
5. Implementing and monitoring the initiative
6. Ensuring long-term sustainability/ growth

Our case-studies also revealed that there was more to the success of these innovative educators than what they did when initiating a specific innovation. To better understand what made them successful agents of change, we then also looked at how they went about the following aspects of their everyday practice:

1. Visioning.
2. Dealing with risk.
3. Marketing.
4. Dealing with finances.
5. Dealing with human capital.
6. Decision-making and problem-solving.
7. Dealing with “growth”.
8. Developing an entrepreneurial culture.

We concluded that it would indeed be valuable for other education professionals to become aware of the set of strategies these successful entrepreneurial educators used, both in the process of initiating a specific innovation and in the course of their everyday practice, while taking into consideration the characteristics and constraints characteristics of their professional role. The challenge now was to figure out how we could best convey this knowledge to our students, especially taking into consideration that most programs that prepare education professionals are heavily determined by state requirements and accreditation expectations and, thus, have little room for electives.

Teaching education professionals about entrepreneurship – Two examples

Our strategy for providing maximum opportunities for our education students to be introduced to relevant entrepreneurial ideas was a two-prong approach consisting of:

- (a) The development of two elective graduate courses that would provide interested students with an in-depth introduction to key entrepreneurial ideas and how they may apply to the field of education, and begin to develop some of the entrepreneurial skills we identified as

valuable for educators who want to become agents of change; the first of these courses, “Entrepreneurial Skills for Educators,” was intended to provide an introduction to the application of entrepreneurship in education, while the second one, “Grant-writing and Other Funding Strategies for Educators, was designed to develop skills in securing funding that are so critical to the success of educators who want to initiate sustainable innovations.

- (b) The development of shorter “entrepreneurship modules” to be offered as part of one of courses already required for the preparation of teachers, K-12 school administrators, higher education administrators, and counselors, respectively (as these programs have essentially no electives).

To give a sense of how this dual approach worked in practice, in what follows we will provide an example within each of these two categories of entrepreneurship education initiatives.

A course on “Entrepreneurial Skills for Educators”

Building on the results of our study of entrepreneurial educators, we designed a 3-credit graduate course entitled “Entrepreneurial Skills for Educators” to share key ideas and tools from entrepreneurship with students from any program in our graduate school of education – which include programs to prepare K-12 teachers, school leaders, counselors, higher education administrators, human development specialists, program evaluators, and researchers in various specializations within the field of education.

Four major goals were outlined for this elective course. The first goal was “to understand what it means to be an ‘entrepreneurial educator’ and how entrepreneurial educators can be most effective in pursuing their mission,” as a means to enter into a dialogue about the relevance of entrepreneurship to education and to actively explore how they as entrepreneurial educators may more effectively pursue their missions. The second goal was to “understand what is involved in the ‘entrepreneurial process’ ... and to learn about some of the key attitudes, behaviors and skills that can be employed at various stages of this process to improve its effectiveness”. The third goal focused on sharing with the students what we learned about other strategies and practices that entrepreneurial educators use and that could empower other educators to become more effective in pursuing their mission, with special attention to the areas of vision, marketing, resource management, human capital management, risk management, dealing with growth, decision-making and problem solving, and organizational culture. Finally, we felt it was important to have the students “identify and learn about characteristics of educational organizations that can encourage or hinder entrepreneurial activity.”

The development of key activities in this class was informed by the scholarship of Collins, Brown, and Newman (1989) and Lave and Wenger (1990), who suggest that the learning of complex skills and practices can be most effective when individuals observe an expert engaged in the practice (possibly with the opportunity to ask questions about what is taking place and why); participate in limited ways – what is often referred to as “legitimate peripheral participation” (Lave & Wenger, 1990) – in the performance of the targeted practice in authentic contexts and under the guidance of an expert; and engage in the targeted practice independently, yet still benefit from some support and feedback. Another important element informing the course was the importance of reflection and making explicit connections with one’s practice as key vehicles to affect the development of one’s identity as a professional.

This led us to design the course around six key activities (for more details, see the course syllabus on <http://www.rochester.edu/entrepreneurship/index.html>). These included:

1. An examination of case studies, including those provided in *How to Change the World*, by Bornstein (2004) as well as those produced by our own research, in order to examine how some entrepreneurs have approached the development of specific enterprises and/or innovation. This was done with special attention to all of the dimensions identified earlier (i.e., vision, marketing, financial and human resource management, risk management, dealing with growth, decision-making, problem solving, organizational culture) as well as characteristics of the organization they belonged to.
2. The invitation of entrepreneurial educators as guest speakers who provided valuable personal insights into their own entrepreneurial ventures and initiatives, and the corresponding skills and processes used in developing them.
3. Having each student conduct an in-depth interview with an entrepreneurial educator of their choice.
4. Under the guidance of the instructor, participating as a class in the process of identifying an innovation worth pursuing at the Warner School, going through the first key steps of the entrepreneurial process (i.e., generating initial ideas and evaluating whether these ideas are truly opportunities worth following) and in the process introducing some important concepts and skills about marketing, financial and human resources management, and planning more generally.
5. In small groups (with guidance and support from the instructor and specific class activities) conduct a systematic and rigorous evaluation of the opportunity presented by an innovation of their choice, to determine whether or not it is worth pursuing (this activity also served as a culminating assessment).
6. At the end of the course, reflecting in writing on the implications of the entrepreneurial ideas learned in the course for one's own practice (this activity also served as a culminating assessment).

“Entrepreneurial Skills for Educators” has now been taught for three times, and each time it has been well received by the diverse group of doctoral, masters and non-matriculated students that were enrolled in it. Through teaching this course, we found that students were receptive to and interested in the various applications of entrepreneurship to their own educational practice, reaffirming our belief that entrepreneurship can indeed inform education professionals to become more effective agents of change.

Infusing entrepreneurial concepts into the course “Counselors as System Consultants”

(Frederick Jefferson, Professor Emeritus, Warner School of Education and Human Development)

Since our programs to prepare counselors have only one elective, we were not ready to sacrifice this choice by requiring a course on entrepreneurship nor thought it would be realistic that many students in this program would choose their elective in entrepreneurship. Instead, we ensured that all prospective counselors would be at least introduced to some basic entrepreneurial concepts and practices in one of their current required courses – “Counselors as System Consultants,” which emphasizes counselors’ responsibility to try to influence systems so as to eliminate causes

for their clients' problems as well as in the pursuit of social justice more general. Entrepreneurial concepts/principles (e.g. risk management, idea generation/innovation, leading change that produces sustainable value, etc.) have been embedded into all aspects of the course, rather than developing an isolated module.

More specifically, the course introduce students to Social Entrepreneurship through activities including:

- a) Reading and discussing in class "The Meaning of Social Entrepreneurship" (Dees, 2001)
- b) Inviting an entrepreneur as a guest speaker to the class.
- c) Having students assess whether or not the guest entrepreneur is a social entrepreneur using the following lenses:
 - i. Adapting a mission to create and sustain a social value.
 - ii. Recognizing and relentlessly pursuing new opportunities to serve that mission.
 - iii. Engaging in a process of continuous innovation, adapting and learning.
 - iv. Acting boldly without being limited by resources currently in hand.
 - v. Exhibiting heightened accountability to the constituencies served and for the outcomes created.
- d) Having students develop and implement a community project that meets the University of Rochester's definition of entrepreneurship.

Insights gained about entrepreneurship education for education professionals

The experiences of teaching the entrepreneurship courses and modules discussed above over the past three years led to some insights about the potential contributions of entrepreneurship to the preparation of education professionals. Among these insights we would like to briefly share the following ones, and use them as a starting point for further discussion with symposium participants:

- Teaching education professionals about entrepreneurship is indeed both feasible and valuable. It can result in students' greater awareness of what educators need to take into consideration and put into place in order to be successful as agents of change in their profession.
- Learning how to systematically evaluate opportunities for innovation is probably one of the most valuable and appreciated outcomes of our experiences teaching entrepreneurship.
- Many education students (and faculty) carry with them misconceptions about entrepreneurship, and the field of business more generally, that can make them very "suspicious" about the potential benefits of entrepreneurship for educators. This can lead on one hand to choosing to avoid entrepreneurship courses when offered as electives, and on the other hand to resistance when entrepreneurship modules are introduced in required course. These misconceptions need to be addressed explicitly early on to ensure that students will engage productively in readings and course activities.

Concluding Thoughts

The experiences reported by our three groups of presenters show how entrepreneurship education can play out differently in the preparation of professionals, depending on the interpretation of

entrepreneurship assumed, the nature of the field, and the institutional goals for the preparation of professionals in that field. When taken together, these experiences suggest a number of interesting ways in which entrepreneurial concepts and skills can be used to enhance the preparation of professionals, as well as limitations and potential obstacles that need to be taken into consideration when introducing entrepreneurship education in an institution. We hope that symposium participants can build on these examples to produce even more innovative ideas about how to capitalize on entrepreneurship education for the preparation of professionals in specific fields – starting from the interactive session following these presentations and the discussant’s comment.

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APPENDIX: ENTREPRENEURSHIP COURSES DESCRIPTIONS

Nursing:

FOUNDATIONS IN ENTREPRENEURSHIP FOR HEALTHCARE PRACTICE (1 credit hour)
This online, asynchronous course is designed for healthcare professionals interested in learning the concepts and principles of entrepreneurship. Students will explore the history of entrepreneurship and gain insight into identifying and creating entrepreneurial opportunities. This course may be taken as an elective in the RN to BS and the master's programs. It is also open to non-matriculated students.

APPLICATIONS OF ENTREPRENEURSHIP FOR HEALTHCARE PRACTICE (4 credit hours)

This 4-credit hybrid (online and in class) course builds on existing knowledge, skills, and interdisciplinary collaboration of healthcare providers surrounding healthcare opportunities, population health, and niche markets in entrepreneurship in healthcare. Students will apply knowledge in entrepreneurship theory, principles, and concepts relevant to healthcare. This course may be taken as an elective in the RN to BS and the master's programs. It is also open to non-matriculated students.

Music:

ENTREPRENEURSHIP IN MUSIC (1 credit hour)

An entrepreneur takes an idea and transforms it into an enterprise that creates value. This course will provide tools to help you turn your ideas into reality. What every entrepreneurial musician needs to know about business entities, profit vs. non-profit, contracts and dealing with lawyers, branding, developing a business plan, ethics and professionalism, financial planning, basic accounting, how to read a balance sheet, cash flow management and taxes. Students will work alone or in teams to develop their real-world ideas.

ARTS MEDIA & PROMOTION: "PERFECTING & PITCHING" YOUR MESSAGE (1 credit hour)

Whether your career path leads you to a string quartet, a jazz trio, the opera stage, or a major orchestra, you'll need to know how to inform potential audiences about you and your performances. In this course, you'll explore the fundamentals of public relations, promotion, and advertising as they relate to a musician. Learn how to write an effective news release, construct a bio, assemble a press kit, create a promotional plan, and work with the print and broadcast media. Explore the role of alternative media such as the internet, direct mail, and other outlets for getting your message across. Guests will include local broadcast and print reporters and/or editors.

CAREER SKILLS FOR THE 21ST CENTURY (formerly GET A JOB! GET A LIFE!) (1 credit hour)

It's never too early to start thinking about your career, but how do you get started on your career path? This career skills course focuses not only on the "nuts and bolts" of getting a job, but helps to give you some of the skills needed for creating your own career. It will include a combination of lectures on specific career paths with guest lecturers and projects designed to prepare students

for life after Eastman. Students will craft resumes, cover letters, bios and press releases, use the Internet as a career development tool, and develop fundraising projects and awareness. It will also help to identify today's job market, assist with fundamental job skills such as networking and interviewing, and explore financial management and planning. Additionally, the course will focus on some of the typical and non-typical career paths that Eastman graduates have pursued and will offer individualized advising to graduating students to assist them in meeting their immediate career objectives.

INTRODUCTION TO DIGITAL PORTFOLIO CREATION (*formerly DIGITAL PORTFOLIO CREATION*) (1 credit hour)

Technology makes it possible for performers, composers, music educators, researchers and others to promote themselves and their work with websites, CDs, DVDs, and other multimedia tools. Familiarity with creative technologies is now also becoming a valuable asset in the music profession in general. In this 7-week introductory course, students will learn the basic technical skills for both online and product-based multimedia content delivery including best practices in the capture, creation and dissemination of multimedia content (images, audio, video and web).

This introduction will provide to those new to creative technology the knowledge and confidence to create their own material, and be a refresher course for those who already have some experience. Although a computer lab is provided, a personal laptop computer may be preferable, and applications for both Windows and Mac operating systems will be taught. It will also be helpful if students have access to capture equipment such as minidisc/CD recorders, camcorders and microphones, although there will be some available for loan. (Students who take Introduction to Digital Portfolio Creation should also consider ALC 210/410 Advanced Guide to Digital Portfolio Creation.)

GRANTS 101 IN THE ARTS & CULTURE WORLD (*formerly GRANT WRITING FOR THE MUSICIAN*) (1 credit hour)

This course will offer a basic introduction to the grant-seeking process for arts and culture organizations, with an emphasis on cultivating support from private foundations. Students will learn about funding sources for arts programs; resources for foundation research; preparing an executive summary, letter of inquiry, and full proposal; developing grant budgets; and stewarding foundation relationships. The highlight of the course will be a "Meet the Donor" panel presentation by representatives from foundations that support arts and culture programs in Rochester.

GRANTS PRACTICUM (1 credit hour)

This class puts into action the principles learned and practiced in "Grants 101" through the full completion of an actual proposal from start to finish. Students will have the choice of working on a proposal that will seek funding for a project on behalf of a specific department within Eastman (that meets the approval of the corresponding department head), or an area of the student's interest which falls under the School's identified priorities. The instructor will provide guided instruction and discussion of the initial determination of the need for a grant and the researching of likely sources for a specific grant within the framework of the Eastman School of Music. As part of the process, the class will review draft grant submissions for clarity of structure, logical presentation and readability. When possible, students will participate in meetings with faculty and staff members involved with their individual grant. Packaging the grant request and attachments

for submission will also be covered. PREREQUISITE: GRANTS 101. PERMISSION OF INSTRUCTOR REQUIRED.

INDIVIDUAL GRANT SEEKING (1 credit hour)

Are you determined but ill equipped to find funding to support your education or a particular project? Structured for individuals not affiliated with non profits, such as students, musicians and researchers, this grant-writing course teaches you how to compile a reliable and current list of prospective funders and to structure compelling proposals, both of which will strengthen your capacity to support your studies and your work.

INTELLECTUAL PROPERTY & THE LAW: WHAT ARE YOUR DIGITAL RIGHTS? (1 credit hour)

If Napster (ultimately) helped composers, did Grokster? What did the Sixth Circuit mean when it said "you need a license to sample"? The goal of this course is to learn about current legal issues affecting the creation and distribution of music. We'll read laws, cases, and blogs and attempt to stay abreast of legal developments relevant to musicians.

INTRODUCTION TO RECORDING (1 credit hour)

Introduction to Recording is a course designed for today's musician. In an ever more complex technological world, working musicians sometime need more than just musical skills to make it in their respective careers. This course is designed to introduce musicians to the world of recording. Students will learn all the basics of microphone technology, console and loudspeaker design and usage. They will also learn the fundamentals of digital editing, mastering and CD production. Most importantly, students will learn how to record a proper demo that could land them their first job in the field of music.

ADVANCED GUIDE TO DIGITAL PORTFOLIO CREATION (*formerly THE MUSICIANS GUIDE TO ONLINE SELF-PROMOTION*) (1 credit hour)

Students will learn how to build a basic Web site from concept to implementation as self-promotion that uses components from their existing press kit or digital portfolio. Basic html, graphic presentation and layout, audio/visual file formats, and Web site creation/maintenance tools will be used to create the final project -- a professional Web site for each member of the class.. Pre-requisites: ALC 211/411 ARTS MEDIA & PROMOTION OR DIGITAL PORTFOLIO CREATION.

MUSIC PRESENTATIONS THAT CONNECT: HOW TO ENGAGE YOUR AUDIENCE (1 credit hour)

Through identifying key elements in music, using different musical exercises, connecting with people on different intelligence levels and basic public speaking techniques, students will be given tools to help them create presentations that allow the audience to have a personal connection to the music. (1 credit hour)

NEW SKILLS, NEW CHOICES, NEW CAREERS FOR MUSICIANS (*formerly CREATIVITY & TRADITION: EXPANDING CAREER OPPORTUNITIES IN MUSIC*) (1 credit hour)

This will be a highly interactive class focusing on creative thinking, innovative use of media and technology, and new resource materials. Individual attention and career direction is paramount.

There will be two class projects in which students develop and present plans for “real-life” music series, with accompanying budgets and publicity campaigns.

PR AND DEVELOPMENT: CAREER ESSENTIALS (1 credit hour)

For individual musicians and ensembles alike, public relations and development are essential elements in launching, building and refining a performance career. When musicians are able to use PR and fund raising with skill and creativity, the results can be dynamic. This course will examine concepts and practices of these related areas (such as branding, media relations, networking and donor relations) in an arts environment. Several musicians, at different points in their careers, will be guest speakers for the course.

TUNE IN, LOG ON, & DROP OUT: TECHNOLOGY AND MUSIC IN THE NAPSTER WORLD (1 credit hour)

The relationship between music and technology is as old as music itself; however, developments in digital technology and network delivery have the potential to impact music and music making as dramatically as the development of Edison's phonograph. From peer-to-peer environments such as Napster and Gnutella to audio codecs such as mp3 and RealAudio, new technologies offer musicians and consumers new and heretofore unimagined ways to create and experience music. This course will explore current and future technology and its impact on music, musicians, and listener.

MUSIC OUTREACH: PERFORMANCE, MASTER CLASSES & MUSIC APPRECIATION (1 credit hour)

This class is designed to give hands on experience in presenting music to young people. It will consist of 14 hours, with the first 7 sessions comprised of instruction in how to present an effective master class, lecture recital, and class for elementary school students. These 7 sessions will take place at ESM during a regularly scheduled class time. Of the first 7 sessions, 2 or 3 class times will be set aside for individual coaching sessions with the instructor for those students who would like additional assistance in preparing their outreach programs. The second half of the course will consist of 3 required visits/presentations (total of 6 hours) that take place in a local school district. The presentations will not occur during the normal class time period, and will be coordinated with the local schools and students' class schedule. Dave Mancini will accompany the students to provide on site feedback and guidance. After completion of the presentations, a final class at Eastman will summarize the course, share experiences, and discuss how each of the students can continue to fine tune and improve their presentations.

KEYSTONE COURSE: LEADERSHIP ISSUES IN MUSIC (formerly *TRENDS IN AMERICAN MUSIC PRESENTATION & TEACHING*) (1 credit hour)

This course will provide an understanding of what drives trends in professional performance and teaching in North America, and proposes ways in which young professional musicians can exercise leadership in shaping these trends to insure a healthy and productive musical future.

Education:

ENTREPRENEURIAL SKILLS FOR EDUCATORS (3 credits)

Engages students in the development of skills and practices that make traditional entrepreneurs successful and examines how these practices can empower educators to be more effective leaders and agents of change. This course especially focuses on entrepreneurial attitudes and behaviors that can help educators expand their abilities to identify and evaluate opportunities, develop and implement carefully thought-out plans, build coalitions, secure resources, evaluate and manage risk, and create a culture that encourages creativity and initiative. By doing so, students become more effective in promoting innovations that can improve their institutions and better serve their clients.

GRANT-WRITING AND OTHER FUNDING STRATEGIES FOR EDUCATORS (*3 credits*)

Implementing change and worthwhile initiatives in education most often requires securing the necessary funding. This course prepares educators and other helping professionals to secure such funding. Includes learning about potential funding sources, how to select funding sources appropriate to a specific project, how to write compelling applications to different types of funding sources (including federal and state grants, national and local foundations, private donors, banks and other lending agencies), and how to appropriately steward the funds when awarded. Students can come to the course with a specific project they want to fund, work on a project initiated by other students in the class, or work on a project identified by the instructor.