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1. Generate an exchange of ideas between scholars, practitioners and industry specialists
2. Enhance the development of theory and application useful to faculty and administrators
3. Provide an additional outlet for scholars and experts to contribute their research findings in the area of higher education

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Speculations on the Future of Graduate Management Education

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The current state and future direction of graduate management education is examined and reviewed. Challenges and opportunities are identified and discussed. The paper concludes that graduate management remains and will remain relevant to the needs of business and society at large but also points to the need for business school’s to become ever more responsive to the rapid changes occurring in the business environment.

INTRODUCTION

When business first took hold in the United States, formal management education was virtually nonexistent. Early in the 20th century, however, major universities were beginning to recognize the need for a formal education process that helped the working or aspiring professional manager to develop his skills. The growth of formal management education within universities accelerated in the second half of that century. Since that time, providers of management education have continuously sought to improve their programs and produce professionals with the skills necessary to succeed in the competitive world of business.

A Brief History of Management Education

From the onset of the industrial revolution, much of the knowledge about the world of business was passed along from one professional to the next through informal training, apprenticeships, or by trial and error. During the first half of the 20th century, professional business managers with formal education were a rarity in all settings. Those formal management education programs that did exist focused their curriculums narrowly on accounting, the law and the "language of business," as these topics were considered most important for corporate deal making at that time (DeAngelo, DeAngelo & Zimmerman 2005).

Following WWII, university-based business education began to center more on the development of functional and practical skills. In fact, it was not uncommon for business students to study drill press operations up until the 1950s. However, post-war economic growth increased the demand for a more comprehensive survey of managerial competencies in the business curriculum (Bennis & O'Toole 2005).

In the 1950s and 1960s business faculties rebranded themselves from schools of commerce to schools of management. This change represented the elevated view of management in academia and industry, as well as the growing body of management research in functional disciplines that differentiated vocational
and career colleges from more rigorous academic programs. In this migration to a more academic perspective the role of theory in the classroom began to edge out practical application in support of a more conceptual and strategic perspective that replaced the more mundane and less challenging shop floor focus of the past. By the 1970’s and 1980’s the landscape of management courses in the college catalog began to reflect a focus on the general manager and the larger organization. This transformation resulted in such changes as courses in Human Resources Management being replaced by Organizational Behavior, Sales being replaced by Marketing, and Data Processing replaced by Management Information Systems. Areas of study such as retailing and manufacturing were eclipsed by more strategic topics of study as strategy and globalization.

Since the 1960s, there has been an explosion of demand for business degrees at both the graduate and undergraduate levels, driven by the growing professionalization of business management and the ever-increasing need for such professionals among businesses (Pfeiffer, Jeffrey & Fong, 2002). Though the primary focus was initially on the undergraduate student, business schools soon realized that the market for both graduate and undergraduate management education was rich and inviting. The Master of Business Administration became the imprimatur of basic business competence that set ambitious business managers apart from the rest. This essential degree established a standard of professional competence based upon functional, strategic and interpersonal mastery.

Whereas students in undergraduate business education programs had only minimal experience in the business world, students participating in MBA programs were assumed to have enough work experience to approach the course material on a more sophisticated level. While the undergraduate student viewed marketing, finance, business operations and strategies from a theoretical perspective, the MBA student came to the classroom with several years of personal experience in those very fields. An MBA student could challenge the faculty and enrich the learning experience of other students with stories of his or her successes and failures, while an undergraduate student could only imagine practicing in the real world. Thus, each degree served its own unique and essential purpose.

Traditional full-time MBA programs were originally designed to cater to students who had modest practical work experience in the field of business, usually 2-3 years, who were able to spend two years as full time students. Part time programs evolved out of night school delivery models that were originally aimed at the employed professional seeking specialized knowledge to augment job competencies or to facilitate a job or career change. The part time student needed convenience and flexibility to manage the variably changing demands of a heavy or light course load depending on the competing pressures from work and family without enduring the high opportunity cost of pausing a career that a full time graduate management degree program would necessitate. The desire to flexibly balance work, school, and family remains a primary need of the part time graduate student today.

The Executive MBA, which was created by the University of Chicago in the 1940s, also began showing up in various forms nationwide after the Second World War. This degree became widespread in response to the pent-up anxiety of the mid-level manager who self-identified a need for a competitive edge to advance his or her career and who sought the knowledge and skills to more quickly advance into more senior management. Competitive firms began aligning with leading universities to send high-potential employees to these programs as a reward for their past performance and a demonstration of mutual commitment, and EMBA programs thrived on the generous tuition reimbursement policies of their sponsoring organizations.

EMBA programs were originally billed as a three-way partnership of the working professional, his employer, and the business school. The core of this partnership model persists today even though the role of the employer in this partnership has been greatly diminished as tuition support has evaporated and the notion of employee-employer loyalty has given way to an at-will employment mindset.

By the late 1980s, the EMBA market had developed so much that the demand for seats in selective programs far outweighed the supply. Dr. Ernest J. Scalberg of UCLA soon observed that an increasing number of younger working professional applicants with only 5 to 7 years of work experience were not being properly served by the EMBA model, but did not want to engage in a part-time program that could take as much as five years to complete. In response, he created the Fully Employed MBA (FEMBA).
model, which was an EMBA-like lock-step cohort with service features built in. The FEMBA provided more elective options to students and targeted applicants with an average age of 30. In the decades that followed, the FEMBA overtook the EMBA by preempting the demand (Scalberg, 1988).

During this period of MBA brand extension the core curriculum shifted from a design based upon areas of concentration (e.g., Marketing, Finance) to a broader generalist approach. In Management Education and Development: Drift or Thrust into the 21st Century? (1988) Lyman Porter and Lawrence McKibbin challenged the current structure and focus of management education and advocated for a more global and strategic focus in the curriculum. They further maintained that senior level MBA students were disadvantaged by pursuing a degree track that focused on a specific functional area because the time spent obtaining a functionally-focused graduate management degree was better spent expanding their knowledge breadth across an array of functional disciplines instead of just augmenting one area of study.

Because not all individuals who desire access to current research and the best business practices are able to participate in long-term programs, a demand for shorter, more targeted programs developed. Business schools aspired to be the preferred provider of management education for all types of students, including those interested in non-degree courses. However, they were constrained by the limitations of an academic faculty with no practical experience in the business world, as well as their unwillingness to invite non-academic professionals to act as instructors. In response, companies in the industry began offering customized programs to their employees that focused on topics such as leadership, cross-cultural negotiations, strategic planning and other important business issues. Thus by the end of the 20th Century graduate management education had evolved into a complex array of degree and non-degree programs targeting different audiences and using different modes of delivery.

A TAXONOMIC OVERVIEW OF MANAGEMENT DEGREES CURRENTLY AVAILABLE

Academic Programs

The Traditional MBA

Traditional full-time MBA programs were originally designed to cater to students with modest work experience. In these programs students earn MBA’s in a functional specialty, such as marketing, accounting or finance, that provides a point of entry into the management profession and helps to brand each student as he or she launches a career. The part-time MBA program emerged soon after full-time programs became popular. Part-time programs exist to provide an educational option to working professionals who wish to remain employed while pursuing their MBA credential.

Executive MBA

Executive MBA programs are designed with a comprehensive curriculum that results in a general MBA degree, as opposed to the specialized degrees offered by full-time and part-time MBA programs. EMBA programs assume that working professional managers already have a functional identity and, therefore, can benefit more from a comprehensive degree that focuses on developing leadership skills.

Executive Education

Executive education programs are typically structured as open enrollment programs or customized training. Open enrollment executive education programs are broadly advertised and target the general public. Custom programs are designed for specific organization following a needs assessment. In either case, executive education courses rarely accrue credit hours that would count toward a degree. When best leveraged within the business school, executive education programs become the working R&D platform for innovation. Programs and courses offered under executive education can be tested, and data can be gathered and used to foster continuous improvement within the school as a whole. In addition, aspiring faculty can practice their craft in executive education courses before teaching a more demanding course in an MBA, EMBA or FEMBA program.
Continuing Education

In addition to MBAs and executive education, many business schools also provide foundational skill development certificates earned through continuing education. In many cases, continuing education programs are more aggressive about building external relations with local businesses. Continuing education programs also tend to be more sensitive to the professional development needs of lower and midlevel professionals.

Hybrid Programs

Some universities also offer programs tailored specifically to individuals who want to use their MBA toward a career in a specific industry. For example, universities may offer MBAs with courses that focus on the law, technology or the medical field.

Industry Programs

When traditional academic programs are insufficient to meet a company's professional development needs, the company may develop its own managerial training resources. This undertaking can be quite expensive. A precise estimate of the investment in spending on training is difficult to determine because firms differ in what and how expenses are allocated in different firms and in what is considered education and training (ASHE-ERIC 2009). However a mid-range estimate of what companies budget and spend more on employee training and professional development in the United States for 2009 is $125.9 billion (Stern 2011). By way of comparison, state support for higher education at a similar time was $78.5 billion (Lederman 2011).

Corporate Learning and Development

For over two decades, increasing numbers of corporate universities have been developing within large business organizations. Though corporate universities originally aspired to becoming accredited degree-granting organizations, this is no longer the case. Instead, these universities have evolved into a centralized learning and development resource for employees of the organization.

Corporate university offerings include mandatory training exercises, such as those discussing sexual harassment or those required by the Occupational Safety and Health Administration, certifications, customer service training, leadership development, company process training, and other programs that fit the strategic direction of the firm’s human capital management and development objectives.

Professional development activities housed in the corporate university typically integrate a custom-designed curriculum centered on strategies employed by the firm. Courses incorporate the unique attributes of the firm's target consumers and product lines. Such programs often collaborate with local universities for certain specialized courses.

Corporate universities' in-house training programs not only develop employees' essential skills, but they may also help affiliate companies in the supply chain to connect on cross-organizational procedures. For example, these universities often develop programs that directly train affiliates on a variety of skills, services and products supported by the firm.

Private Consultants

Some companies in the industry employ private consultants to train employees and enhance their skills. Private consultants can specialize in a broad variety of areas, and they may provide content, assessments, IT solutions, distance learning courses and/or products related to learning analytics.

CURRENT TRENDS IN MANAGEMENT PROGRAMS

Degree Programs

MBA programs tend to enjoy greater success in today's market when they are shorter. Students know that they can finish the program quickly, and are therefore more motivated to enroll, in part because their opportunity costs are lower for shorter programs. Programs are also more successful when they are
flexible. Many students are balancing work, family and school, so convenience is extremely important. Furthermore, students are more likely to enroll in a program that is customizable. Students are more motivated when they can choose multiple electives, as doing so allows them to exercise control over their own destinies. Finally, when students choose programs, they tend to look for those with accreditations from the AACSB or ACBSP, which assure at least a minimum level of quality and are recognized as indicators of quality by corporate recruiters.

Programs tend to produce the most successful students when they practice a restrictive application process. For example, schools may use the Miller Analogy test, GRE or GMAT to screen students before admitting them. Such selective admissions may suggest less about the programs than about the preparation and intelligence of entering students. It is telling that the use of standardized tests are used less frequently in Executive MBA programs where work experience and accomplishments in business are given considerable weight in the admissions process.

Business programs can also increase the success of their students by implementing a curriculum that integrates skill building, theoretical discussion and practical application. Students graduating from such programs tend to be well rounded and equipped for success because they have been exposed to both specific functional business knowledge and skills as well as the way various individual business functions fit together within a larger organization. A combination of analytic skills and capabilities and interpersonal and communication skills also serves graduates well both early and later in their careers.

Non-Degree Programs
Non-degree programs tend to act as a research and development tool. Using these programs, schools test their curricula, allow their faculty to gain experience in the classroom and launch new courses to gauge their efficacy. Most open-enrollment non-degree programs have a focus on tactical content and they help to build relationships in vertical markets. Custom programs, on the other hand, tend to feature strategic, specialized content relevant to a single sector or company. They operate by utilizing existing relationships between the school and its corporate partners.

Flexibility
Today's management education programs do what they can to accommodate students' changing work and family situations. These programs allow students more control over their own learning, and they may even offer distance-learning options when appropriate. Programs are most successful when they can accommodate the traditional student as well as the working professional. This is especially true in executive and continuing education settings. The growing use of e-learning technologies, such as Webinars, online courses, and broadcast or streaming video is another way to provide flexibility for students while also reducing the cost and time away from the job that a residential program might require of participants.

Areas of Concentration
Today's programs may focus on general management, or they may offer specialization. Typical specializations include finance, operations, marketing and sales, among others. Programs that aren't general or functionally specialized sometimes operate under a theme, such as leadership, green business or global business. Yet other programs focus on a specific industry. Typical industries served include professional vertical, consulting, health care, law and technology.

Collaborative Friendships
Students attending MBA programs soon discover that building interdependent relationships with other students is not only useful, but is also critical for success, especially in programs that foster a competitive learning culture. Within this atmosphere, many adult students become dependent on their classmates for support when completing papers, projects, class presentations and basic study activities. These relationships often persist well beyond graduation due to the common bond that develops while the students face the intensive challenges of balancing work, school and demands of their family and friends.
CURRENT ISSUES IN GRADUATE MANAGEMENT EDUCATION

Confusion in the Marketplace
Because EMBA and continuing education programs target similar markets, there is often a "turf struggle" over both content and customer companies. Likewise, confusion exists within the market regarding which program provides the most value when the same university offers both types. The divide between part-time programs, which are increasingly being labeled “Professional” MBA programs or “Fully Employed” programs, and Executive MBA programs has also become murky as programs admit younger, less experienced students to Executive MBA programs to fill the void left by the shrinking of the market for the Executive MBA.

Student Debt
When students choose academic management education, they must typically pay for the program themselves or seek grants and scholarships. If a student cannot pay on his or her own, student loans are the only other option. Because tuition for these programs can be very expensive, students find themselves in significant amounts of debt after graduation. For this reason, students may avoid this educational path altogether or attempt to acquire a position that will provide reimbursement for continuing education. One reason for the historical popularity of part-time and Executive MBA programs has been the availability of tuition reimbursement programs for employees. However, these reimbursement programs are declining in number and those that remain are becoming less generous. Increasingly graduates of part-time and Executive MBA programs, like their full time MBA colleagues, are taking on debt in order to pursue graduate management education. Even as students have had to take on greater debt to finance their educations many programs have continued to aggressively increase fees and tuition. This is not sustainable in the long term and recent declines in applications to some programs may reflect a growing resistance to both the price of a graduate management degree and a reluctance to take on substantial debt to finance obtaining that degree.

Return on Investment
University MBA programs focus on developing skills that are deemed critical by the university's faculty. However, these skills are not always the same skills that are important to the typical corporate firm. As the true consumers of management education, students know that they are the ultimate beneficiaries of the educational process they choose because they are able to use the new credential in order to obtain a promotion at work or a new job (Pfeiffer & Fong 2002, 2003). There has also been growing criticism of the MBA by business school faculty who increasingly question whether the degree is producing graduates with the necessary skills to be successful managers (Bennis & O'Toole 2005, Connolly 2003, Datar, Garvin & Cullen 2010, Mintzberg 2004). As a result, there is a growing need in both academic and industry-related management education programs to allow each student to chart an individualized course for lifelong learning that takes into account his or her strengths and deficits as well as their needs for career success as managers. Otherwise, the student's investment in the educational process is not sufficiently rewarded and the value of a graduate management degree will be diminished in the eyes of prospective employers.

Need for Added Flexibility
In order to participate in graduate level management education, students must invest a significant amount of time and resources. Most adult students must also balance the demands of work and family like with their graduate school commitments. As a result, the current MBA market reflects the need for flexible access to course materials, faculty, peers and other student services in order to improve program retention and facilitate degree completion. Fortunately, many current programs are designed so that meeting times, location, technology and other features center on the lifestyle of the typical working professional. Some of these programs even invite spouses and children to social events in order to create an extended family atmosphere that supports the student as a whole. This emerging relationship-centric
approach to management education creates a more humanistic value and creates a sense of unity, as opposed to the antiquated "sink or swim" atmosphere. It also serves to create a genuine learning community that can facilitate the educational experience of the student and extend learning beyond the traditional classroom.

**Shelf Life**

One of the most common concerns among management students is the expiration of the course content. Though some topics, such as basic accounting and statistics, have an indefinite shelf life, others are constantly changing. For example, technology, international business and industry-specific strategies and regulations change on a regular basis. While it might be assumed that business schools within research universities would have a competitive advantage and take a leadership role in updating management education, the reality is that much of the research in research oriented business schools is not focused on industry needs. This does not mean that the research that is conducted is irrelevant. Indeed, much of it does eventually find application in management practice. Rather, it suggests that research oriented business schools, or any business school for that matter, do not fill the critical role of updating management skills in response to the immediate needs of practicing managers and the firms for which they work.

Thus, the ultimate responsibility for updating management topics with relevant information lies either with each individual learner or with their employer. The reality is that many employers have neither the resources nor the expertise to provide such updating. One of the primary challenges faced by MBA programs is that students rarely understand that they must assume ownership of the learning process after the program ends. Unfortunately, the act of graduation tends to send a signal of finality and closure that often deactivates the student's quest for knowledge. Successful graduates will either figure out the need for such continuing education on their own or they will graduate from programs that inculcate the need and ability for continuing education as part of graduates' skills and career planning.

One means by which business schools can extend the shelf life of their MBA programs is by building bridges to alumni in hopes of perpetuating the relationship between the student and the institution. Offering alumni supplemental instruction in the form of seminars, refresher courses and exclusive access to executive education programs is one way to make a graduate business experience a life-long experience. These resources also serve the critical need of the ambitious careerist – relationship building and networking. Alumni events broaden the former student's network across programs in a setting that supports skill enhancement and professional growth.

**“Soft” versus “Hard” Skills**

MBA programs are constantly seeking to balance soft skills, such as leadership communication and management of change, with hard skills, such as finance, risk analysis and optimization. Though most firms prefer management professionals with a mixture of soft and hard skills, they don't agree on what this mixture should be. Thus, for MBA programs, finding a balance that appeals to a large number of firms can be quite challenging. In fact, students and businesses often make distinctions among different MBA programs based on how they choose to balance these skills. It is also often the case that the hard skills are more important early in a career and the soft skills become more important with experience and career advancement. Hence, many Executive MBA programs, which serve a more experienced student, often place more emphasis on strategic thinking and leadership.

Because the goal of an MBA program is to create a professional qualified to work as a general manager, a healthy balance between these skills is essential but the relative import of these skills changes over the course of a career. This need for balance distinguishes MBA programs from the more specialized functional management programs, which typically focus on technical skills. In fact, professionals with master's degrees in specialized areas, such as engineering or more relevant to business, accounting, financial engineering or marketing research, may benefit from pursuing an MBA in order to advance into general management.
Globalization
The phenomenon of globalization creates a unique and unanticipated problem for business schools. Prior to globalization, U.S. business schools needed only to focus on business trends in the United States. However, the rise of globalization has quickly connected businesses in the U.S. to those on other countries, thus making it necessary for business schools to incorporate international business strategies and theories into the curriculum. A common education strategy is to offer an “international” experience to students, often at the option of the student and to include courses in the curriculum modified by the terms international or global, such as international finance, global marketing or just international business. The problem with these approaches is that the experiences and courses are often isolated and not integrated into a larger perspective. It is also critical that the classroom include international students. Fortunately a U.S. business degree remains attractive to students from around the world. The key is to create within a business program a microcosm of relevant international markets and work forces.

Faculty Shortage
Many business schools lack a highly qualified faculty. The shortage of business faculty, in general, is well documented (Gardiner 2011, Hawawini 2005). However, the generic shortage is exacerbated by the even smaller number of faculty members with significant business or management experience. Many faculty members tend to be well versed in business theory but inexperienced in the actual business world (Bennis & O’Toole 2005). While there is a growing willingness in many business schools to the idea of incorporating business professionals into their faculty, driven in part by the shortage of faculty, there is also huge variability in the qualifications of such individuals. There is a vast difference in an entrepreneur who has had modest success in a small business and the CFO or CMO of a multinational corporation. There are also vast differences in the willingness and ability of a successful senior manager to adapt to the collegial environment and community of learning that characterizes a university-based business school.

Technology
As technology continues to develop and students rely ever more on it for learning, business schools have begun to adapt their instructional methods to the needs of the tech-savvy student. However, there has been enormous resistance by faculty to the use of these technologies. When faculty members are not experienced in using relevant technologies, incorporating technology into the curriculum is challenging. In many business schools there are few incentives, and often significant disincentives, for faculty members to be innovative in the use of course delivery technology. But faculty members are not the only ones skeptical about the ability to deliver a high quality graduate education experience using any modality other than the traditional classroom. Students and employers are also skeptical. This is both unfortunate and problematic because research has clearly demonstrated that the classroom experience can be replaced by alternative technologies in many cases.

Competition
The graduate management education market is competitive. Business schools must find ways to build up their school's brand and attract students and corporate partners in order to maintain a long-term position within the industry. There has been an increasing flight to quality with students applying to fewer but better schools. The shortage of qualified faculty has created “have” and “have not” tiers of graduate management programs. The “have not’s” are increasingly unable to compete for students and have difficulty placing graduates. This problem is further exacerbated universities use of the revenue generated by business programs to subsidize all manner of other programs. These subsidies, which reduce the ability of business schools to invest in themselves, typically go to fund low enrollment programs that produce graduates who are unemployable. This is not sustainable over the long term but does raise the question of whether the future of graduate management education resides in universities. The decoupling of business schools and universities, which have much to offer to business students, would be an unfortunate consequence of universities’ refusal to prune irrelevant and financially draining programs.
Changing Demographics

In the past, students were primarily male. Most business professionals were male, so females rarely entered the business school. Today, however, business students are overwhelmingly female. In fact, more than 60 percent of current undergraduate business students are women. In addition, many students are single parents with family responsibilities and a need for flexibility. They are more demanding when it comes to their educational products, and they focus on price and convenience when choosing a program. Today's student is looking for the WIIFM (“What’s In It For Me”), and they want to be sure that they will receive a good return on their investments.

Supply and Demand in Management Education

There is a fundamental push and pull in the underlying curricular design of many graduate management programs. This can be characterized in terms of supply side versus demand side. In the case of the MBA, demand is driven by the individual student seeking to gain a competitive career advantage by earning a master degree in business and employers who seek capable management talent. Perhaps even more important an educated managerial class will feed community economic development goals, generate more jobs in the region, and purchase more goods and services with local businesses.

The supply side of the process rests with the university or college and the faculty who own the curriculum for the degree. While content driven by demand is dynamic and responsive to changing market forces, program content driven by supply is static because tenured faculty are entrenched and reluctant to add, modify or remove core curriculum content without engaging in a lengthy debate typically driven as much by issues of academic territory as concern for keeping the curriculum in sync with a rapidly changing economy.

Consequently, most MBA programs are designed using a functional model that represents the in-place faculty (Bennis & O'Toole 2005). Because business school faculties have little or no formal training in curriculum design other than structuring an individual course syllabus, there is a general reluctance to revisit the full architecture of the degree. Innovation tends to exist around the edges of a curriculum, rather than at the core of the educational mission. Still, the responsibility for academic program design historically rests with a faculty that may approach the topic encumbered with political as well as pedagogic concerns.

The corporate consumer of MBA graduates is keenly aware of the fundamental disconnect between what best prepares an effective manager and what is typically taught in an MBA program (Datar, Garvin & Cullen 2010, Mintzberg 2004, Pfeiffer & Fong, 2002, 2003). A common complaint is that an MBA is often well padded with non-essential esoteric content that does not serve the immediate strategic execution of the firm. Corporate consumers also complain that professors have little or no practical managerial experience or even real work experience outside academia, and that graduates of such programs add little or no real value to the overall performance of the company. A common statement made by corporate firms is that MBA students can solve hypothetical cases, but not real world problems (Pfeiffer & Fong 2002).

The issue of corporate dissatisfaction with university business training impacts support of both MBA and executive education programs. Not only are MBA programs experiencing a drop in applications and admissions but, similarly, non-credit executive education programs are struggling as well. Companies want talented professionals who are ready to execute with little or no on-boarding (plug ‘n play), a measurable set of skills that add value to process efficiency and specific identifiable competencies. Corporate consumers of MBA graduates expect their new employees to be able to think, plan and act independently, solve problems with the big picture in mind and communicate across functional subcultures. Furthermore, they prefer managers who possess excellent social/emotional intelligence with a dash of a secret ingredient known as “executive presence.”

The Student's Perspective on Academic MBA Programs

At the start of his or her relationship with a business school, the student seeking admission to an MBA program finds him or herself on a steep learning curve. The student must evaluate available
programs, make financial plans and negotiate agreements with colleagues at work and partners at home. Full-time programs tend to attract younger students who are willing to relocate, whether it be across the country or even across international borders. Working professional students, on the other hand, are generally captives to their own geographic area and are limited to those programs that are within a reasonable traveling distance or that are delivered through distance education technology. Students with families are further limited to programs structured to minimize the time spent away from home.

Many top tier programs tout national rankings as an indication of relative value, but most business schools must rely upon other reputational metrics to legitimize their value to applicants. These metrics include placement statistics, faculty reputation, cost or special program features, such as international trips.

Accreditation is also confusing to the MBA applicant. Many programs claim accreditation but fail to distinguish between regional institutional accreditation and professional program accreditation. Only a minority of business programs has the AACSB stamp of approval, which is based on relevance and rigor of curriculum, the quality of the faculty and admissions standards. In truth, most applicants have little clear understanding of the importance of accreditation and thus fail to utilize this characteristic in their decision-making process.

In many cases, the final decision a student makes about which MBA program he or she will attend comes down to the connection they feel with the school, the convenience of the program, their perception of the program's value and the cost of the program in terms of time, money, the political risk suffered at work and the emotional pressures of the new commitment.

Once admitted to a program, the new student often discovers that problems arise due to conflicting pressures from spouse and family, work commitments and the competing obligations of study team members and professors. Just when a new student figures out how to make all the gears of his or her overcommitted life work together, a new semester changes everything, a crisis occurs on the job, a spouse starts to wonder about all the time spent away from home with new study buddies and a boss starts to openly question the value of time spent in school instead of at work. During this period of inevitable buyer’s remorse, there is a need to continuously resell the value of the program to everyone, including the student himself.

Following the recent 2008 economic downturn, MBA applications declined at an unexpected rate. What was once thought to be a never-ending supply of MBA students is now seen in the context of a customer who is unwilling to assume the new debt required to enter the program. This customer has seen corporate tuition reimbursement drop to less than 20% nationally and has started to question the fundamental cost/benefit of the degree in the marketplace. Furthermore, these customers worry that the opportunity cost of the time spent in pursuit of the degree may undermine his or her promotability due to lost “face-time” with his or her boss, rather than increase his or her appeal as an employee.

Certainly, financing the increasingly expensive MBA degree is becoming a major stumbling block in a prospective student’s decision process. In the past, a student could easily finance the degree with a combination of personal loans, tuition reimbursement from an employer, and/or financial aid. However, program costs have steadily increased, while the recent economic downturn has made it harder to manage the associated debt. For example, a good FICO score is the key to qualifying for financial aid, but many applicants’ scores have tumbled in recent years, thus making this option unattainable. Furthermore, older F/EMBA profile students in their 30s and 40s must now weigh the prospect of student tuition debt in a broader context. An adult applicant may well ask, “should I take on additional financial aid at a time when one or more of my children is planning to attend college and will need those same funds for his/her tuition?” The answer is often "no."

Millennial students, on the other hand, are faced with a different calculus. If they are working, they probably do not have tuition subsidy benefits. Further, in recent years, many firms have cut or eliminated in-house training programs formerly offered in their corporate university. The younger worker assumes a different social contract with the company than his older Baby Boomer colleague. The Millennial assumption is one of less dependence on the mercurial beneficence of his company and, thus, more responsibility for managing his or her professional development and learning options. Whereas the older
adult may opt out after weighing the calculus of his personal cost/benefit of paying for a graduate management degree, the younger applicant is more likely to opt in because the opportunity costs are relatively low.

Due to the current fiscal crisis, many state university funding models have reduced enrollment ceilings for public universities resulting, thus resulting in fewer seats available at the tax subsidized tuition price that makes most state business school MBA programs so attractive to students. As a result, self-supporting programs that use no tax monies and charge market rates have emerged as an alternative. This has also narrowed the price gap between private and state institutions, much to the benefit of mid- and upper-tier private colleges and universities.

Re-Emergence of Specialty Degrees

As competition increases in the field of management education, more focus is placed on the quality of the admissions process, curriculum and faculty at each institution. To differentiate themselves, some business schools have focused their efforts on offering specialized graduate degrees, as opposed to a general curriculum. Examples of specialized degrees include Financial Engineering, Marketing Research, Health Care Management, Sports Management, Supply Chain Management, Management Information Systems, Scientific/Technology/Engineering Management and Masters in Accounting degrees.

Though these efforts at specialization may attract a specific group of students, they may have a negative effect in the long term. For example, such narrowly focused programs target a very narrow customer base, as opposed to the broader market targeted by the general MBA. Specialized degrees may also have limited growth potential in certain markets. Such programs may also cannibalize the MBA. They are typically shorter than the MBA degree, which makes them attractive to students concerned about the time, tuition and opportunity costs associated with the MBA.

KEY ISSUES ON THE HORIZON

Ubiquity versus Scarcity

An MBA has historically helped a professional to advance his or her career. However, as more people obtained MBA degrees, the market has become saturated at the very time that many corporations are shedding middle managers. When everyone applying for a position has an MBA, the degree itself seems somewhat obsolete. In such an environment, professionals will be forced to find other ways to stand out from the crowd and compete with other applicants. In addition, many positions simply do not require a graduate management degree and can be filled with bright graduates of undergraduate programs. In addition, many positions simply do not require a graduate management degree and can be filled with bright graduates of undergraduate programs.

Market Value of MBAs and Executive Education

Historically, MBAs were obtained primarily from academic institutions. However, as corporations realize that their view of a quality MBA program is not the same as the perspective of the typical academic institution, the value of such a degree becomes questionable (Datar, Garvin & Cullen 2010, Mintzberg 2004, Pfeiffer & Fong, 2002, 2003). Without integration of the two differing perspectives, it is difficult to construct programs that benefit all consumers involved. Furthermore, the MBA itself becomes devalued in corporate circles, thus lowering the return on investment for students who pursue formal business education.

Even institutions that realize the importance of catering to corporate needs have trouble keeping up with the industry's need for high performance talent. Corporations expect graduates of MBA programs to be skilled, up-to-date and ready to work without further training. However, because the industry is always changing, producing such a graduate can be challenging.

Customization

Business schools often try to customize their programs in order to benefit a specific organization or industry. However, without the help of industry professionals, can the faculty of a business school
actually perform this function with accuracy? If not, is customization really worth the trouble, or should corporations simply create their own in-house programs?

Most management programs also attempt to tailor their programs to suit individual learners. However, it is not yet clear whether this process is truly beneficial to the program as a whole. For example, a program tailored to an individual's strengths and weaknesses may be more rewarding for that particular student, but it may not produce a graduate capable of meeting the expectations and needs of his future employer.

Long-Term Product Support
The shelf life of an MBA in today's ever-changing marketplace is variable. In light of this fact, it is difficult for schools to determine whether they should act as a vendor of a specific educational product or a long-term partner for continuing professional development. Even though some schools attempt to provide former students with support after graduation, few students feel motivated to take advantage of this opportunity. At this time, the most effective methods schools could use to reach out to former students are not clear.

The Un-MBA -- A Blue Ocean Approach
In response to the problems faced by business schools, a movement for alternatives to MBA programs has entered the market. In an ideal world, such programs would be unafraid to be unique, and they would not proclaim to be all things to all people. Instead, they are structured with a focus on the demands of the local market. The "un-MBA" would come with a fully integrated content architecture designed to promote skill mastery. The curriculum would be structured specifically for business professionals without regard to antiquated academic standards. Schools operating under this approach would also offer clear differentiation of MBA programs so that students could easily find the educational path that fits their needs.

Why Business Schools Remain Relevant
Thus far, business schools have continued to remain relevant in spite of the challenges they face. The reason for this relevancy lies in the benefits business schools are still able to offer to their students. First of all, business schools help create career opportunities, both for faculty members and the students they teach. Business schools also improve the quality of life for their students by teaching them valuable skills that they can use to further their careers. Furthermore, business schools provide education opportunities that can benefit all citizens, including those who do not work in the business industry. Business principles are relevant in all aspects of human life, and business schools impart useful knowledge and teach valuable skills.

Looking Forward
The role of corporate sponsors is changing. Companies remain the silent partner of graduate management education and executive education programs, but they are becoming more critical of the product they receive. To retain the support of these corporate partners, business schools must learn to capitalize on the relationship by creating an MBA product that more closely aligns with industry needs. The market is hungry for alternatives to the traditional white bread MBA, and business schools must react to this need.

If corporations aren't satisfied with the programs offered by academic-sector management programs, they are tempted to create their own. Likewise, a student is more likely to study management through programs operated by corporations since the corporation itself will be the student's future employer. In light of these facts, the survival of the business school is contingent upon the health of its relationship with the corporate sector. Without this relationship, the academic business school is unlikely to persist.
RETHINKING GRADUATE MANAGEMENT EDUCATION – THE BOTTOM LINE

The U.S. budget crisis, the rise in unemployment and the fall of the housing market have all led to great volatility within the economy. These events affected business schools in a variety of negative ways. Business schools are now forced to cut their budgets, accomplish more with less money and charge students higher fees. However, because more people are in the market for a career change, this crisis has also created an unprecedented opportunity for business schools to increase their appeal.

Because the business world is always changing, successful business schools must do the same. Constant monitoring of program effectiveness, student retention and graduate success are key components of any successful management education program. In addition, business schools must forge strong relationships with corporate partners and use them to their advantage. Without the approval of the corporate partner, the degree offered by the program becomes less valuable.

Though corporate approval is important, students must approve of a business program as well. Programs must be customizable to meet the needs of an individual student, and they must provide flexibility and convenience for students with other obligations. Faculty members must be up-to-date on the latest business trends and relevant technologies, and they must be willing to coach and mentor students outside of the classroom. They must also be open to changes in curriculum, and they must encourage students to participate in real-world business experiences. Finally, they must be dedicated to producing measurable outcomes, both for students and corporate consumers of program graduates.

Without these measures, the business school simply can't survive in today's world. However, if business schools take advantage of the opportunity before them, they can take hold of the market like never before.

REFERENCES


Despite the many positive benefits which can be derived from group assignments, faculty members frequently report that students generally dislike being assigned to a group project. This paper reports a quasi-experiment which presented students with information about the relevance and importance of group skills during the time in which they were working on an assigned group project, and then measured the students’ attitudes toward group projects. The reported study demonstrates that instructors can alter students’ perceptions of group work by incorporating instruction about group skills into group assignments.

INTRODUCTION AND LITERATURE REVIEW

Group assignments are considered a well-established approach to helping students develop teamwork skills (Campbell and Ellingson, 2010) and have been documented as enhancing student learning. (Freeman, 1996) Marketing courses from Principles of Marketing through Advanced Marketing Management require that students actively engage in group activities as one means of achieving both the teaching and the assurance of learning objectives stated in course syllabi.

A number of empirical studies have concluded that activities such as study groups, group research projects, and group presentations of project results enhance the depth of students’ understanding of assigned course materials (McKeachie, Pintrich, Lin, & Smith, 1986; Kimber, 1996; Bacon, 2005). Studies also have shown that group skills are valued by employers and that the experience of participating in group projects as a student transfers effectively to career activities (Colbeck, Campbell, & Bjorklund, 2000; Coleman 1996).

Despite the documented benefits of participating in group projects a considerable number of business students tend to express negative opinions about being assigned to participate in group activities. The most frequently expressed complaints regarding group assignments center around the negative interactions that take place between group members. Students point to group experiences that reportedly involved personality conflicts, poor communication, and low levels of individual commitment to the group. A prevalent manifestation of these reported negative intra-group interactions focus on a member, or members of a group who continually shirk their assigned responsibilities. These unproductive group members have been called, aside from terms unrepeatable in the current context, “free riders” or “free loaders.” Quite frequently the so called free riders are considered responsible for initiating viral intra-
group conflicts that the student group members may not be equipped or empowered to resolve. Such conflicts impact the day-to-day performance of the group and almost certainly impact the individual evaluations of members by other teammates and in the end, the overall project outcomes (Gottschall & Garcia-Bayonas, 2008).

The problem of negativity toward group projects is especially acute for students in the earlier phases of their business degree programs where the mastery of fundamental concepts evolves into a focus on the application of these concepts to specific situations. The situation to be addressed by the group may be, for example, a case study or a research project. Both of these assignments depend in part on creating a cooperative environment which, even if not completely free of differences between and among the members, encourages efforts on the part of the group members to manage or resolve conflicts which have bearing on group discussions and on the analyses and presentation of the final results. In summary, the premise which initiated the pedagogical experimental method reported on in this paper was the observation that students were frequently assigned group projects without really understanding the behaviors required of an effective member of a team and without experience in dealing with conflicts that arise in the course of the activities of even successful work groups.

While group work can have significant positive effects on student learning and student success, the effectiveness of group work is dependent upon how instructors structure group assignments. More specifically, the group assignments should have four characteristics (Johnson & Johnson, 1994; Slavin, 1983 & 1989):

1) Provide instruction on interpersonal skills.
2) Foster interdependence among group members.
3) Align individual goals with group goals.
4) Encourage reflection on the group process.

Colbeck et.al (2000) reported that many faculty members assign projects that focus solely on content without attending to the structure of the assignment. For example, many instructors seem to assume that group skills are best learned by repeating group experiences. Thus, these instructors may think that the very act of being in a group (when repeated over multiple assignments and/or classes) sufficiently enables students to learn group skills. Other faculty members seem to assume that group cohesion is a function of geography, time availability, or the diversity of skills. These instructors may assign groups based upon where students live (e.g., place students who live near each other in the same group), students’ schedules (e.g., place students who have similar course schedules in the same group), or students’ majors (e.g., make sure each group has one accountancy major, one marketing major, etc.).

The present paper is based upon the premise that training in group skills can and should be deliberately integrated into courses that require group projects. The paper suggests a method for structuring group assignments that allows students to learn group skills alongside the content on which the assignment focuses. Further, data are presented that demonstrate the effectiveness of this method in achieving positive changes in students’ attitudes toward group work and in their attitudes toward intra-group interactions.

A METHOD FOR TEACHING GROUP SKILLS

By far the great majority of business students will at some point be engaged in group projects. Their opinions about the value of group projects may be derived from first-hand experiences or, in other instances, may have been learned from hearing about the experiences of others who have had first-hand experience with group assignments (Campbell, 1963). The reasons or rationalizations that underlie the negative attitudes regarding group projects offered by students should not be minimized or summarily dismissed. Rather these expressions of dislike for group projects should be accepted as attitudes which can, to some degree, be changed by the application of a careful and incremental program of behavior modification. An attitude has three major components (Campbell 1963). These are the cognitive component which refers to the extent of knowledge an individual has about the attitude object. The
second component is the affective aspect which indicates the intensity of positive or negative feeling an individual expresses toward the attitude object. In many instances the affective component presented as the intensity of liking or disliking the attitude object is used as the defining measure of an attitude. The third component is the behavioral aspect. This aspect takes into account the actions an individual will direct toward the attitude object. In this study the student sample were exposed to positive information about the benefits of group work at the same time they were working on group projects. The combination of cognitive and behavioral influences was expected to influence positive changes in the affective component of the students’ attitudes toward group work and group projects. The investigators reasoned that having learned about the appropriate skills and behaviors relevant to effective group performance students would develop more positive attitudes about the benefits of positive intra-group interactions (Festinger, 1957; Campbell, 1963; Kiesler, Collins, & Miller, 1969). These expected outcomes were stated as the hypotheses to be tested within the study.

An Outline of the Study

The study reported upon took place in the context of a course within which group work, in the form of presentations and written reports was the predominant method employed to assess each student’s progress and learning. The course was altered to meet the four structural criteria presented earlier. More specifically, early in the term, the course was altered to include a selection of readings and in-class exercises that focused on group work, the individual’s behavior in a group setting, and his/her responsibility to the work of the group. These readings and exercises were designed to provide instruction on interpersonal skills and foster interdependence among group members. The readings and in-class exercises were revisited later in the term to encourage the students to further reflect on the potential benefits of group activities. Lastly, the grading policy of the course was used to align individual goals with group goals. Seventy percent of each student’s final grade was dependent upon the instructor’s evaluation of performance of their group and the group members’ evaluations of the contribution of each member to the overall performance of the group. The course restructuring discussed above reflected the four characteristics of group assignments previously outlined. The following section provides further details regarding the manner in which assigned text materials and the materials introduced to underscore the relevance of group activities were integrated into the course.

Integrating Group Skills Instruction within the Course

Instructional material regarding group activities was integrated into the course through the following steps:

1. At the beginning of the term, the instructor
   a. Assigned students to groups;
   b. Explained the impact of group work on student learning and on student success; and
   c. Explained the grading policy to communicate the emphasis placed on group work in the course.

2. Required that students read a text on group dynamics and effective group behavior. For example, the authors assigned Lencioni, P. (2002) The Five Dysfunctions of a Team: A Leadership Fable. Other books are available (Corey, Schneider, Callahan, & Russell, 1997; Smith & Berg, 1997; Levi, 2010)

3. Lead a class discussion on the book, and had each group of students engage in a series of exercises aimed toward helping them better understand the personalities and work styles of the individual members of their group (see Figure 1 for an example).

Each exercise was introduced to the class as a whole. Afterward, students were given time to break up into their groups and complete each exercise (each exercise takes between 20-30 minutes). At the end of the designated time, students reconvened in the classroom and the next exercise was presented. This approach forced the group members to concentrate on one exercise at a time. A respite between each of the exercises allowed time for the materials to be discussed in some further detail.
4. Revisited the group exercises a few weeks later. By that time the students were expected to have developed a better understanding of each the individual members of their group. As a result of the discussions and first-hand experiences, the measured outcomes were expected to be (a) more data-driven, and (b) the data collected to be more meaningful.

5. Administered, at the end of the term, a survey designed to collect information about each individual’s contribution to their group. The results of the survey were used to determine the grade on the group assignment that was posted for each student.

FIGURE 1
SAMPLE TEAM-BUILDING EXERCISE

1. Draw the depth-frequency model on a piece of paper and write your name on the top.
2. Pass the paper to a teammate who then places an “X” on the chart to indicate their perception of the listed person.
3. Continue until everyone has reviewed everyone else’s paper.
4. Return sheets to original owners who review their own charts and indicate to the team’s aggregate opinion of their style.
5. Discuss implications of collective results with special attention paid to areas of clear similarity and clear differences.

Depth-Frequency Model

<table>
<thead>
<tr>
<th>Depth</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Rare but Substantive Conflict</td>
</tr>
<tr>
<td>Low</td>
<td>Rare and Shallow Conflict</td>
</tr>
</tbody>
</table>

ASSESSMENT OF EFFECTIVENESS

The effectiveness of the innovation was assessed through a survey administered at the beginning of the term (Time 1) and re-administered at the end of the term (Time 2). The Time 1 survey included a number of items that were grouped into two scales. The first scale was designed to measure attitudes toward group work. The second scale measured attitudes toward intra-group interactions (see Tables 1 and 2). Both scales were operationalized using multiple items. When tested, both proved to meet the level necessary to satisfy the reliability criterion. In addition to a series of items that measured the students’ perceptions of the book readings and accompanying exercises, the Time 2 survey used the same two scales used at Time 1.
TABLE 1
TIME 1 MEASUREMENT SCALES

<table>
<thead>
<tr>
<th>Scale</th>
<th>Items</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Toward Intra-Group Interactions</td>
<td>I was satisfied with my group's overall performance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I was satisfied with how the group members interacted with each other.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The group was very cohesive (we stuck together).</td>
<td>.728</td>
</tr>
<tr>
<td></td>
<td>There was good communication among group members.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The group members were supportive of each other.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I was very committed to the group.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I generally got along with other group members.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>We were generally an optimistic group (as opposed to being pessimistic).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My group was innovative/creative as compared to other groups in the class.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My group developed a closer relationship than other groups in the class.</td>
<td></td>
</tr>
<tr>
<td>Attitude Toward Group Work</td>
<td>I think there should be fewer required group projects</td>
<td>.904</td>
</tr>
<tr>
<td></td>
<td>Groups are a useful part of the learning environment (reverse scaled).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Groups take more time than they’re worth.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I think I could learn more effectively if I didn’t have to work in a group so much of the time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eliminating group work would diminish the learning experience (reverse scaled).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I get more out of my courses than I would if I didn’t have group projects.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Projects that are worked on as a group are more easily accomplished than if we each worked alone.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>We should be required to do more group projects.</td>
<td></td>
</tr>
</tbody>
</table>

The effectiveness of the course restructuring was assessed through a two-step data analysis process. First, it was necessary to demonstrate that the students’ perceptions of group work in general had improved, and it was necessary to be able to demonstrate that the group experience within the present class was indeed superior to their prior experiences with group projects. This required that the scale means from Time 1 be compared to those of Time 2. The results demonstrated that the Time 2 measurements were significantly more positive than Time 1 measurements for both scales (see Table 3). Second, it was necessary to see if the data supported the hypothesis that the team-building exercises were instrumental in creating more positive student attitudes. Correlation analysis was used for this, and the team-building exercises were shown to be positively correlated with the respondents attitudes toward group work (R = .579; p = .001) and attitudes towards intra-group interactions (R = .479; p = .008) (see Table 4).

TABLE 2
TIME 2 MEASUREMENT SCALES

<table>
<thead>
<tr>
<th>Scale</th>
<th>Items</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Toward Intra-Group Interactions</td>
<td>I was satisfied with my group's overall performance.</td>
<td>.743</td>
</tr>
<tr>
<td></td>
<td>I was satisfied with how the group members interacted with each other.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The group was very cohesive (we stuck together).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There was good communication among group members.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The group members were supportive of each other.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I was very committed to the group.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I generally got along with other group members.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>We were generally an optimistic group (as opposed to being pessimistic).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My group was innovative/creative as compared to other groups in the class.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My group developed a closer relationship than groups I've been in for other classes.</td>
<td></td>
</tr>
</tbody>
</table>
As a whole, the results shown in Table 2 support the idea that the curricular changes made in the course improved students’ attitudes toward group work and helped ensure that students behaved appropriately in their groups. However, a major limitation of the present study relates to use of a one-group pretest-posttest, quasi-experimental design (Campbell & Stanley, 1963). While this design is widely used in educational research it does suffer from the lack of a control group which prevents several types of extraneous effects (e.g., the history effect, maturation effect, and testing effect) from being ruled out as plausible rival hypotheses.

| TABLE 3 |
| CHANGE IN DEPENDENT MEASURES FROM TIME 1 TO TIME 2 |
| Scale | Scale Means | Significance of Differences Between Means |
| Attitude Toward Group Work | 3.5 | 3.9 | p = .004 |
| Attitude Toward Intra-Group Interactions | 3.4 | 3.7 | p = .009 |

| TABLE 4 |
| CORRELATION BETWEEN DEPENDENT AND INDEPENDENT MEASURES |

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Correlation with Attitudes Toward Group Exercises</th>
</tr>
</thead>
</table>
| Attitude Toward Group Work | R = .579  
|                          | p = .001 |
| Attitude Toward Intra-Group Interactions | R = .479  
|                                              | p = .008 |

In an effort to mediate the questions raised by the use of the one group pretest-posttest design, further analyses that used observed variations within the respondent sample were conducted. Respondents were divided in a way which would provide a surrogate control group. More specifically, based upon their responses to the pretest items, the respondents were divided into three groupings designated as High,
Medium, and Low. The “Low” group included those respondents who were in the bottom third with respect to their attitudes toward group work or their attitudes toward group interactions in Time 1. The “High” group included respondents who were in the top third with respect to their attitudes toward group work or their attitudes toward group interactions in Time 1. The “Medium” group included respondents whose responses were in the middle third on both the attitudes toward group work and attitudes toward group interactions scales. The “High” group was treated as a surrogate or internal control group. Individuals within the sample who were designed as High were observed to have very positive opinions about the benefits of group work and group interactions. It was expected, therefore, that team building assignments would have the least measurable effect on this group. The analysis (described above) was then repeated using the High and Low groups from the split data set to see if differences between the groups would be observed.

For the “High” group, neither attitudes toward group work nor attitudes toward group interactions statistically changed from Time 1 to Time 2 (see Table 4) while both attitudes became significantly more positive for the “Low” group. Further, for the “Low” group, the team-building exercises were significantly correlated with the Time 2 measurement of attitude toward group work (R = .724) and attitude toward group interactions (R = .518). These analyses of the split data set suggest that the improvement in the respondents’ attitudes from Time 1 to Time 2 is due to the team-building exercises rather than being caused by some extraneous variable such as a history effect.

### TABLE 5
CHANGE IN DEPENDENT MEASURES FROM TIME 1 TO TIME 2 FOR SPLIT DATA SET

<table>
<thead>
<tr>
<th>Scale</th>
<th>“High” Group</th>
<th></th>
<th>“Low” Group</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scale Means</td>
<td>Significance of Differences Between Means</td>
<td>Scale Means</td>
<td>Significance of Differences Between Means</td>
</tr>
<tr>
<td>Time 1 Time 2</td>
<td></td>
<td></td>
<td>Time 1 Time 2</td>
<td></td>
</tr>
<tr>
<td>Attitude Toward Group Work</td>
<td>4.2 4.2</td>
<td>p = 1.00</td>
<td>3.0 3.9</td>
<td>p = .016</td>
</tr>
<tr>
<td>Attitude Toward Intra-Group Interactions</td>
<td>4.0 3.9</td>
<td>p = .512</td>
<td>2.9 3.8</td>
<td>p = .010</td>
</tr>
</tbody>
</table>

**DISCUSSION AND LIMITATIONS**

This paper reports a method for designing group projects that allows students to build their group skills while learning course content in a group setting. The data collected and analyzed demonstrate that this method can enhance students’ perceptions of the value of group work and of the value of group interactions. The method presented and tested in the present study was designed to be consistent with the characteristics of group projects presented in the literature (Johnson and Johnson, 1994; Slavin, 1983 & 1989). Thus, the present study complements the existing literature by both corroborating previous published work and by providing readers with a method of implementing previously published findings within a course context.

As discussed in the body of this paper, the use of the one group pretest-posttest, quasi-experimental design limited the interpretation of the data. The design, as was pointed out, is widely used in educational research. Its major failing is the lack of a control group and as a result an inability to rule out several
plausible rival hypotheses associated with the analysis of the research outcomes. The introduction of a surrogate or internal control group, however, added a measure of validity to the findings reported in this paper and indicated that further research, using true experimental designs, should yield additional insights into methods that might be applied in finding solutions for the pervasive problems associated with group projects assigned to students.

REFERENCES


Doing More than Learning: What do Students Contribute During a Study Abroad Experience?

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Robert Beekman  
University of Tampa

Holly B. Tompson  
Florida Southern College

Phillip T. Kolbe  
University of Texas at El Paso

Scholars have written widely about the impact that study abroad has on students. For example, we have examined the extent to which students experience growth in intercultural sensitivity, language skills, and acuity in political systems. However, we know far less about what students give as opposed to what they receive during study abroad. This paper reports the results of a study that was conducted during a recent study abroad program. The results indicate that students have a small but positive economic impact on the local communities where they visit.

INTRODUCTION AND LITERATURE REVIEW

In any educational endeavor, stakeholders are curious about the results. Faculty, administrators, parents, and students all want to be sure that educational programs are effective at meeting their stated objectives. Recently, university accrediting agencies (e.g. AACSB) have started to emphasize “assurance of learning” to encourage universities to set clear learning objectives, and then measure the extent to which the students are learning what they are expected to learn.

Study abroad programs are also subject to questions about whether they accomplish their goals. In response, scholars have written often and widely about the impact that study abroad has on students who participate in study abroad programs. In 2004, Frontiers published a special issue of “fifteen assessment studies” (Vande Berg, 2004, p. xiv) dedicated to evaluating the learning outcomes of study abroad. Since then, the research has grown commensurate with the growth in study abroad popularity. Bender, Wright, & Lopatto (2009) examined the extent to which a study abroad experience influences students’ intercultural competence and knowledge. They concluded that study abroad “positions students to understand the world differently” (p. 319). In a similar study, Braskamp, Braskamp, and Merrill (2009) focused on the global learning and development of students who had participated in a study abroad
program. They used a pre-test and post-test instrument to measure change in students over a one-semester experience. The instrument focused on six domains of learning, and students reported significant improvements on five of the domains. The authors concluded “students changed their self-assessments of their knowledge of cultural traditions, sense of self, and relations with others over a period of a semester abroad” (p. 111). This is positive news – it reassures us that study abroad programs elicit the kind of growth that we want. Williams (2005) focused on how study abroad improved students’ intercultural communications skills. Williams compared students who studied abroad to student who stayed on their home campus. Using a pre-test and post-test, she discovered that exposure to various cultures was associated with greater improvement in communication skills among the student abroad group than the stay-at-home group.

These three studies had similar goals and methods. They examined whether study abroad was associated with changes in student outcomes. There are literally hundreds of other studies that measure other student outcomes that result from study abroad. Examples of other important outcomes that have been studied are language acquisition (Freed, 1995), intercultural sensitivity (Anderson, et al, 2006), development of values (Lindsey, 2005), and future career paths (Norris and Gillespie, 2009).

The upshot of this research is clear and compelling: when students participate in study abroad, they grow, learn, develop, and change. They receive benefits that have important value. But what do they give? While spending months abroad, these students certainly have some impact on other stakeholders, but research attention has rarely focused on this question. The absence of research on this issue was summarized by a student reflecting on her study abroad experience.

“My classmates and I spent four of the most amazing, eye-opening months of our lives living, working, and studying alongside the Minangkabau people of Western Sumatra. While we benefitted greatly from the exchange, I wondered about the village after we left. Did the community also gain from the experience?” (Sumka, 1999).

This question posed by Sumka seems like an obvious one, but has been rarely addressed by scholars and administrators who plan, coordinate, and implement the programs for study abroad. When the impact of study abroad has been examined, “impact” has been almost exclusively measured as the effect that experiences have on the students. What about the communities, economies, families, and natural environment of the places where students visit? According to Wood, et al (2011, p. 1) “the general literature on study abroad gives little attention to the effects on communities of international programs.” Schroeder, et al (2009, p. 141) concluded that measuring the impact of study abroad on the local communities has been “virtually ignored”. We are beginning to gather evidence that our students are receiving important benefits from study abroad. But at the same time, we know very little about the impact they are having on the places they visit. We may assume the impact is positive or neutral, but we don’t really know. Our ignorance is unfortunate in its own right, but appears even worse given the recommendation by the Forum on Education Abroad. In its Code of Ethics for Education Abroad, the Forum advises universities that send students abroad to demonstrate “awareness of the program’s impact on the local community” (2008, p. 3). For the most part, there are probably not many universities that are aware of the impact that their students have on the local community during study abroad programs.

The purpose of this paper is to examine one aspect of the impact that study abroad students have on the local communities they visit. Specifically, we wanted to make an estimate of the economic impact that students have on the places they visit during their study abroad.

ECONOMIC IMPACT STUDIES

It is fairly straightforward to describe the methodology for estimating economic impacts. In practice, however, researchers face significant data limitations and difficulties. Further, the unique characteristics of both tourism spending and also developing country economies present significant challenges to those seeking to estimate economic impacts in either of those situations.
A standard approach to economic impact estimation begins by quantifying some initial economic event, and then estimating three levels of economic “effects” that result from the original event. These changes in economic activity are categorized by economists as:

- **Direct Expenditure**: The initial shock to the economic system. In our case the monies spent by Semester at Sea participants in the various ports they visit.

- **Indirect Expenditures**: The economic activity that results from successive rounds of re-spending of the direct expenditures. For example, while a restaurateur may receive direct expenditures from cruise ship tourists, she will need to re-spend a portion of that revenue to purchase food supplies and to purchase catering equipment. Those businesses will also re-spend revenue to purchase supplies. The increase in overall economic activity of these inter-business transactions is an indirect effect of the initial direct expenditure.

- **Induced Expenditures**: The increase in household spending resulting from the higher personal income earned (directly or indirectly) from the direct expenditures. For example, hotel workers or tour guides who would otherwise have not been employed are able to purchase additional goods and services for their households.

Indirect and induced expenditures are sometimes grouped together as secondary expenditures, or alternatively as the secondary spending effects of a direct expenditure. It is a tedious but clear-cut task to estimate the direct expenditures of a tourism event (e.g. a visit by a SAS ship). While conceptually most will agree that the secondary expenditures are positive, it is more difficult to estimate the magnitude of those impacts. Calculating the secondary expenditures involves estimating an expenditure “multiplier” that represents the multiplicative secondary impact of a given type of direct expenditure. Estimating multiplier effects is especially challenging for both tourism activities and for events in developing economies. The estimation difficulties center on a lack of data, the unique characteristics of tourism spending, and leakages of monies out of the study area. Consequently, most estimates of an event’s secondary impact are made by using multipliers that have been previously estimated by regional economists or local governments. If those multipliers have not been previously estimated, then calculating secondary effects is nearly impossible.

The dearth of economic multiplier data in developing countries should come as no surprise given typically minimal internal infrastructure to track expenditures. Additionally a significant percentage of economic activity in developing countries occurs in the informal (barter, black market, unrecorded) sector. Even if multiplier data does exist, as might be the case in a more developed country, it is far less likely that multipliers specific to the cruise tourism (or even tourism in general) exist for a specific port market. For estimates of secondary expenditures to be meaningful the multipliers need to reflect the extent to which those specific kinds of re-spending patterns will recycle within the study area. Cruise tourism spending is unique from most other economic activity in a study area in that it represents spending on goods and services outside the average daily life (think zip lining and hired translators). Events in developing countries and in the tourism industry are also more likely to suffer ”leakages” out of the study area. While some of the wages paid to tourism workers is likely to remain and recycle within the local economy, a significant portion is likely to be spent on goods and services provided from sources outside the region. The leakages are more likely in developing economies because the limited ability of such markets to satisfy the demands of tourists with internal local supply (e.g. fine wines, cheeses, and bed linens). These leaked funds will not contribute to further rounds of secondary effects, resulting in a lower multiplier. While we understand that leakages are likely to be more pronounced in developing country ports of call, there is little data available as to the extent of this effect.

**RESEARCH METHODS**

We proposed an economic impact study to the Institute for Shipboard Education, which is the organization that manages the Semester at Sea (SAS) program. Each fall and spring semester, SAS provides a study abroad program for about 700 university students on board its ship, the MV Explorer.
During the semester, the ship sails around the world, stopping at 9 – 13 countries along its route. Students enroll for 15 hours of academic credit, and classes are taught while the ship is at sea. When the ship docks in port cities, students are led on field trips to the cultural, economic, and historical attractions in the region. Students are required to attend at least two field trips in each course for which they are enrolled. Additionally, many students organize their own excursions independent of SAS-sanctioned field trips. All costs associated with travel in port countries are above the cost of tuition. By drawing a sample from students in Semester at Sea, we could compare spending habits across many different countries.

There are several reasons why it will be useful for ISE and SAS to know the economic impact of the MV Explorer. First, demonstrating a large economic impact might be useful as leverage in negotiating fees with port agents or local governments. If ISE can show that Semester at Sea participants spend a lot of money per day in cities where the ship berths, then it might be easier to negotiate for lower fees, a better port location, lower taxes, etc. Local and regional governments are accustomed to hearing this logic from companies that are planning expansions. Tax abatements and other incentives frequently given to manufacturing firms have also been granted to hotels, marinas and other tourism businesses based on demonstrated economic impacts in the local area. Second, the “shipboard drive” could use this student spending data to encourage donations. For example, SAS could promote the shipboard drive with a slogan such as “Donate one day of your spending to ISE – spend it on someone else instead of yourself!” Perhaps if students knew that they spent $50 per day on themselves, they might be willing to forgo one day of consumption and donate that amount to people in the local community instead. Third, SAS has always focused its voyages on exposing students to developing countries. Students are encouraged to learn the customs and culture of these counties, but to also participate in service projects organized by the Field Office. Many American students don’t realize how wealthy they are, compared to the rest of the world. The experience of traveling in developing countries helps them understand their wealth. Measuring and documenting how much they spend will also help them understand how fortunate they are. Fourth, many developing countries are emphasizing tourism as a means for economic growth. The emphasis seems to be working. According to the World Tourism Organization, international tourist arrivals grew by 43% from 2001 to 2005 in developing countries. In developed countries, the growth was only 31%. While Semester at Sea does not consider tourism as part of its mission, it would be good to know that the MV Explorer is having a positive impact on the tourism sectors of many countries.

We randomly selected 100 students and two faculty members on the spring 2010 voyage to participate in the study. Students were asked to record all the expenses they incurred while away from the ship, but not the payments that they made to the Field Office. Only the research team was allowed access to the subjects’ expense logs. Individual data were not disclosed to ISE, parents, faculty, or other students. After the voyage ended, we worked with the Field Office to collect data regarding the expenses the subjects incurred while they participated in any pre-paid trip that ISE arranged. All subjects were promised anonymity. In exchange for completing his or her expense logs, each subject was given $50 into their shipboard account. By the end of the voyage, 73 students and 2 faculty members had completed their expense logs, so we have a sample size of 75 subjects.

The subjects’ expense logs were created as a 5”x 8” booklet. The logs were small enough to easily fit into a backpack or purse, and were made with heavy cardstock covers. In an effort to reduce recall bias, subjects were instructed to take the logs on all their excursions and record their expenses as they occurred. Before arriving at each port students were reminded by email to record all expenses during their excursions. Pages in the log were pre-printed with expenses tracking sheets for each port city. We wanted to have details about the kinds of purchases subjects were making, so we asked them to classify each expense into one of seven categories: 1) restaurants & pubs, 2) travel, 3) entertainment & recreation, 4) lodging, 5) grocery, 6) gifts & souvenirs, and 7) other. See Appendix 1 for an example of a page from the expense log.

In addition to the self-report data we collected from the expense logs, we also collected data from the SAS Field Office, which was responsible for planning and coordinating the field trips that constitute most of the excursions students took while the ship was in port. The field trips were pre-paid before the ship departed the U.S. so they represented money that was eventually paid to local service providers. Through
extensive conversations with the Field Office, we were able to parse the field trip expenses into the same categories that appeared in the subjects’ expense log. This step was required because the students were charged a single fee for each field trip they attended, and the component costs of the trip were not disclosed to the students. For instance, if the Field Office provided a trip to the War Museum in Ho Chi Minh for $100 per student, the fee would be used to pay for a private bus from the ship to the venue, a box lunch during the field trip, and a ticket to the exhibit. By working with the Field Office, we determined which field trips our subjects chose, and we estimated how to allocate the total field trip costs into their component costs. Data from the expense logs and from the Field Office were entered into an Excel spreadsheet. We combined the self-report data from the students’ expense logs and the Field Office data to calculate the total spending by subject, by port, and by expense category.

RESULTS

Table 1 shows the average direct spending per person in the nine ports. The last row shows the average direct total expenditures for the voyage. The average person spent $6,660 during activities away from the ship. The third column shows the average spending per person per day. The data show that subjects spent about $89 per day in Ghana on the low end and $215 per day in South Africa. Overall, the average subject spent about $148 for each of the 45 port days away from the ship. Approximately 668 students, faculty, and staff sailed on the voyage. If we assume that our sample is a good representation of the ship’s population, then the total spending by the members of the voyage was about $4.5 million. The crew on the ship (approximately 200) is not included in the total spending estimate.

<table>
<thead>
<tr>
<th></th>
<th>Average spending per person ($)</th>
<th>Days</th>
<th>Average daily spending ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaii</td>
<td>515</td>
<td>4</td>
<td>129</td>
</tr>
<tr>
<td>Japan</td>
<td>740</td>
<td>5</td>
<td>148</td>
</tr>
<tr>
<td>China</td>
<td>1,157</td>
<td>8</td>
<td>145</td>
</tr>
<tr>
<td>Vietnam</td>
<td>690</td>
<td>6</td>
<td>115</td>
</tr>
<tr>
<td>India</td>
<td>1,023</td>
<td>6</td>
<td>171</td>
</tr>
<tr>
<td>Mauritius</td>
<td>207</td>
<td>2</td>
<td>104</td>
</tr>
<tr>
<td>South Africa</td>
<td>1,075</td>
<td>5</td>
<td>215</td>
</tr>
<tr>
<td>Ghana</td>
<td>356</td>
<td>4</td>
<td>89</td>
</tr>
<tr>
<td>Brazil</td>
<td>897</td>
<td>5</td>
<td>180</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,660</strong></td>
<td><strong>45</strong></td>
<td><strong>148</strong></td>
</tr>
</tbody>
</table>

In addition to comparing how students allocated their spending across different countries, we wanted to know some detail about their spending habits. The results shown in the following tables give a breakdown of how the students spent money in each country. Tables 2 allows for some comparisons of the average spending habits between expense categories. For example, the average expenditure was $215 per day in South Africa (Table 1). Of that total, how did the average student spend her money? According to our data set, the largest category (34%) was allocated to travel. One of the most popular activities in South Africa is taking a safari, which can require travel by plane from Cape Town.
The results in Table 2 show the details of how students spent money in the nine countries they visited. In seven of the nine ports, travel was the largest expense. In two ports, Hawaii and Ghana, entertainment & recreation was the highest category and travel was second highest. Spending on restaurants and lodging tended to be the third most popular category. Another way to understand patterns in the data is illustrated in Figure 1, where total expenditures across all countries are shown in a pie chart. It shows that over the whole semester, students spent 34% of their extra or discretionary money on travelling within the counties they visited. The travel category included fares for airlines, taxis, and buses. Travel accounted for the largest component of all the expenses, and was almost twice as large as spending on restaurants, which was the next biggest category (18%). Entertainment & recreation accounted for 15% of spending, which was virtually equal to lodging, which claimed 14% of students’ spending.

### FIGURE 1
**COMPOSITION OF TOTAL EXPENDITURES**

The results in Table 2 show the details of how students spent money in the nine countries they visited. In seven of the nine ports, travel was the largest expense. In two ports, Hawaii and Ghana, entertainment & recreation was the highest category and travel was second highest. Spending on restaurants and lodging tended to be the third most popular category. Another way to understand patterns in the data is illustrated in Figure 1, where total expenditures across all countries are shown in a pie chart. It shows that over the whole semester, students spent 34% of their extra or discretionary money on travelling within the counties they visited. The travel category included fares for airlines, taxis, and buses. Travel accounted for the largest component of all the expenses, and was almost twice as large as spending on restaurants, which was the next biggest category (18%). Entertainment & recreation accounted for 15% of spending, which was virtually equal to lodging, which claimed 14% of students’ spending.
DISCUSSION

According to these data, the voyagers on the MV Explorer spent about $148 per day in each port-of-call during the spring 2010 voyage. The 668 students, faculty, staff, and lifelong learners spent 45 days in port cities and their collective spending was just over $4.5 million. Past research indicates that crew members tend to spend about 70% as much as passengers on cruise ships (ACS, 2009). If we use that estimate, spending by the crew on board the MV Explorer (n = approximately 200) would add about $900,000 to the total spending by people on board the ship. Including the crew raises the total spending to about $5.4 million.

Other researchers have estimated the spending of cruise passengers who visited the following areas:
- Bar Harbor, MA = $106 per person/day (Gabe, et al, 2003)
- Port Vila, Vanuatu = $87 per person/day (Douglas & Douglas, 2004)
- Costa Rica = $55/day (CESD, 2006)
- Uruguay = $61/day (Brida, Bukstein, & Tealde, 2011)

Given the socioeconomic profile of the typical Semester at Sea student, our estimate of $148 per day seems consistent with other estimates of tourist spending. The $5.4 million is our estimate of direct spending. To estimate the total economic impact would require that we estimate the economic multipliers for cruise tourism in each region that the ship visited. In most developing countries, tourism multipliers have not been estimated so an estimate of total economic impact is outside the scope of this project. For any project, tourism multipliers are extremely difficult to measure because of the variety of sectors involved in a given tourism venture. In fact the SAS expenditures arguably differ in composition from those of other tourists and even from other cruise-based tourists. As such, even if there were a full complement of existing multipliers for all of the ports of call the ship visited, specific to tourism related spending, we could still not be confident that the resulting total impact estimates would be accurate for our purposes. What we can conclude, however, is that the total economic impact of SAS expenditures is in excess of the $5.4 million direct spending we estimated in this study. Some portion of every dollar that students spent did stay in the local economy, and some portion of the money that stayed was spent again. We can confidently assert that there is a positive multiplicative impact occurring in these local economies.

Another way to consider the results is by examining the category spending in a country. From Table 2, we can estimate that about $45,000 ($17 x 4 days x 668 people on board) was spent in the restaurants and pubs in Ghana. Or we can estimate that about $56,000 was spent on hotels and lodging in Vietnam. Within these tables, we have one measure of what students contributed to the communities where they spent their study abroad semester. These results are interesting, but they must be interpreted in the context of how influential or important they are to the local community. The money that was spent ($56,000) in hotels in Vietnam seems like a nice windfall for the local economy. However, the ship docked in Ho Chi Minh City, which is large city with a population of at least 9 million people and hundreds of hotels. In this context, the $56,000 spent on lodging by the students, faculty, and staff of SAS is a very small contribution to the local community. When we look at total spending by SAS in Vietnam, the estimate is $460,000 ($690 per person x 668). By any standard, this is a good and positive contribution to the local economy. According to the Vietnam National Administration of Tourism, the average tourist spends about $1024 during a visit to Vietnam. So the average expenditure made by the study abroad students was about two-thirds the size of the typical tourist’s expenditures.

Figure 1 indicates that subjects in this study allocated about one-third of their spending to travel. At first glance, this result might seem a little odd. After all, these were students who were traveling around the world on a ship. When they arrived in port cities may of the students spent even more money to travel away from the port cities to other places. It may be that this sample had an insatiable appetite to travel (or spend money), but it can also be explained by the location of the ports relative to the major tourist attractions. For instance, in India, the ship docked in Chennai, a city in the southeastern part of the country. An excursion to see the Taj Mahal required a plane trip from Chennai to Agra (a distance of
about 1,200 miles). Many of the other port cities were similarly located some distance from the most famous or attractive tourist sites in the country. This result further illustrates that SAS expenditures may differ from other tourism expenditures or even cruise-based tourism expenditures, and so it would be inappropriate to apply those multipliers (if available) to this study.

CONCLUSION

The results of this study indicate a small but positive economic contribution that study abroad students on SAS make to the communities they visit. The average SAS student spent $148 per day while traveling for 45 days off the ship, totaling $6,660. Extrapolating to the entire ship’s community, we estimate that the total expenditures were about $5.4 million. We can safely conclude that students on Semester at Sea do more than learn from their study abroad experience. They also contribute to the local economies where they eat, sleep, recreate, shop, and study. Our study provides a small glimpse into the contributions that students make, but it sets a precedent for future research that can identify other ways that students are doing more than learning during their study abroad experiences.

LIMITATIONS

The purpose of this research was to examine what students contribute during study abroad instead of studying what they learn or receive. The study meets our purpose, but has some limitations too. First, the sample is small. We started with 102 volunteers who agreed to participate in the study. By the end of the voyage, 75 had fully completed their expense logs. The response rate is excellent (73%) but a sample of only 75 might not be large enough to be representative of the population of students on the ship. Because of the high response rate, we did not test for non-response bias but we acknowledge that a larger sample would give us a better estimate of students’ spending habits.

Second, our sample is restricted to Semester at Sea students, and might not be representative of all students who study abroad. Our interest is studying the contributions that students make to the places they study. Ideally, we would have a broad range of students in our sample who were studying in many different countries, from different programs, associated with different universities from different countries. For several reasons we chose a sample from SAS to answer our research question. Data from other study abroad programs might be more difficult or expensive to collect, but would probably allow for conclusions that are more generalizable to the population of study abroad students.

Third, the measure of our dependent variable is rather narrow. We are interested in understanding what students give or contribute to the places they study. Spending or economic impact is only one of the many contributions that students can make to the places they study. When visiting developing countries, there are dozens of options for students to contribute the local communities. For example, Semester at Sea provides students the opportunity to visit schools and orphanages. During the visits, students interact with the children and spend time learning about how the organizations serve the children. The SAS students also donate supplies, money, and materials to the programs they visit. Other students donate time and labor to service projects during the voyage. They have helped build schools and low-income housing. Contributions like these are not measured in our study but they are certainly important examples of how students give and build in the places they study.

DIRECTIONS FOR FUTURE RESEARCH

Future research could improve the conclusions of our study in several ways. We can ask several questions that suggest avenues for future inquiry. First, is this result generalizable to other study abroad programs? Any study abroad program is typically more expensive than staying on one’s home campus, which may indicate that students who can afford study abroad programs are probably able to afford spending $148 per day (or more) while they visit other countries. Future research could examine the spending habits of students on other study abroad programs, but conventional wisdom suggests that those
students would also have the means and the interest in spending money above and beyond the cost of tuition while studying abroad.

A more important and more difficult question about economic impact should also be examined. Our data show that students create revenue for the local communities. But what costs do the local communities incur in exchange for earning that revenue? Some of the costs are financial. Those costs could be measured in an effort to estimate whether the net effect of study abroad makes a positive or negative impact on the local community. Most researchers, faculty, administrators, and host governments assume the net effect is positive, and they encourage the tourism sector in developing countries to grow. Almost without exception, the tourism bureaus, boards, and departments of developing countries hope for growth in tourist visits, especially wealthy tourists from the west. However, there are non-financial costs to tourism and study abroad that are easy to imagine but difficult to measure. Schroeder, et al. (2009, p. 142) posed a series of questions that highlight many of these costs.

- “Do student visits contribute to economies of dependency on outsiders, orienting those economies to pleasing wealthy foreigners rather than to local needs?”
- “Is there a ‘season’ for foreign visitors to come to the area, such that student visits contribute to a ‘boom and bust’ cycle in the local economy? Is there any way to mitigate this effect?”
- “Do students’ patterns of consumption (both during and before the visit) contribute to problems in the community? The ‘demonstration effect’ of students bringing high-end travel gear, lots of clothes, spending money easily on restaurants, giving gifts, etc. may create resentment.”

Although the costs inferred by these questions probably can’t be measured, their existence can be made explicit in the minds of study abroad students. As scholars and educators, our role in study abroad must be to help students think critically about themselves and what they are learning. But we must also help them think about more than themselves – they should acknowledge the impact they are having on the communities they visit. Only then can they attenuate the negative impacts they are having and increase their positive contributions in the places they travel. Eventually, our research on study abroad could focus much more heavily on what our students give in addition to what they receive.

REFERENCES


APPENDIX

APPENDIX 1
DATA COLLECTION MATRIX IN THE EXPENSE LOG

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The Role of Institutional Research in Supporting Internationalization of U.S. Higher Education

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The internationalization of higher education institutions is complex and constantly mutating. Research on its many components is essential, but the questions to be asked and the range of issues to be covered may be new to some institutional researchers. The internationalization process includes strategic planning; recruitment, admissions, and support of international students; study abroad and student exchanges; curricular initiatives; the role of faculty; research and research centers on campus; international collaboration; overseas campuses and dual degrees; and organizational support and funding. Questions researchers may ask and data sources they may use as they meet new institutional needs are discussed.

FOCUS AND CHOICE OF DEFINITIONS

In the last decade, international education in the United States has expanded dramatically offering extraordinary new opportunities for students and faculty. For institutional researchers, the bad news is that international education in the 21st century is diverse, complex, rapidly expanding, and constantly mutating. The good news is that IR staff are not the only ones collecting data on events and trends in the field. Throughout this article, the authors will reference sources and data to help orient IR practitioners to the issues, key questions, and tools so that they can avoid re-inventing the wheel.

To begin, although “international education” is used as a catch-all title, in actuality, six different terms with six different meanings are recognized in the field. The term global describes a field or issue in which national borders are not relevant, such as global warming. The term international means between nations, such as an educational exchange between a university in the US and one in Germany. The term comparative addresses similarities and differences, for example, in political systems. The term international education means adding the study of other nations into any academic field and experiencing another nation through various forms of student and scholar mobility. Intercultural education provides students with the tools to understand other cultures using concepts such as individualism and collectivism. Multicultural education addresses the diversity of ethnic and cultural groups within a particular nation, perhaps focusing on majority/minority status or power relationships. If administrators, faculty, and students use these terms interchangeably as they describe curricula and activities, it hampers the work of those leading and assessing institutional change.

We have chosen to write this article around “internationalization,” using the definition: “Internationalization of higher education is the process of integrating an international/intercultural...
dimension into the teaching, research, and service functions of the institution.” (Green & Olson, 2003, p. 12). What follows is a brief description of many components of campus internationalization and suggestions about the various roles that IR can play in supporting and monitoring the progress of internationalization (de Wit, 2002; Knight, 2008; Olson, Green, & Hill, 2006). To facilitate their work, institutional researchers need to not only clarify these terms but also carefully assess the values, characteristics, and goals of their own campuses.

A SYSTEMATIC PLAN FOR INTERNATIONALIZATION

Strategic planning in higher education aims to bring about change and reposition an institution within its environment so that it can address emerging challenges and take advantage of opportunities. Typically a plan includes statements of mission, values, and vision for the future; priorities, goals, and initiatives to be accomplished in a set period of time; and indicators of how progress will be measured. It is only in the last decade that international issues have been reflected in planning in order to be systematically addressed. Despite growing interest, one survey indicated that less than 40% of institutions make specific reference to international education in their mission statements, require a course with an international focus, or have a full-time person to coordinate internationalization (Green, Luu, & Burris, 2008). Even on campuses with a clear international focus and a well-developed strategic plan for internationalization, that plan is often a separate document from the strategic plan for the institution.

This article focuses on many elements that make up an internationalized campus, for example, enrollment of international students, study abroad, course requirements, international faculty, international research, and formal agreements with international partners. Too often these elements are based on individual initiative and are stand-alone efforts. Effective change—the goal of strategic planning—requires not only a listing of goals and initiatives, but also a reorienting of attitudes, policies, relationships, resources, and rewards to be aligned with the new vision and supported by continuous feedback on progress. IR staff can play a central role in the intentional transformation of their institutions by using appropriate assessment tools, tracking indicators of progress, making information readily accessible to faculty and administrators, and taking the initiative to put the micro level data into a macro institutional framework through well written reports (Sanders & Filkins, 2009).

An overall audit of the institution will show IR staff where to focus their work. Has the mission statement been updated to say “civic and social responsibility in a global context?” Does the strategic plan include international initiatives across all divisions with a clear indication of who is responsible and how the initiatives are connected? Are the goals measured, not just in numbers such as the percentage of students who have studied abroad, but also in learning outcomes at the individual, program, and institutional level? Are there symbolic indicators of a commitment to internationalization such as campus wide events? Is internationalization promoted in institutional communication such as press releases and the president’s speeches to donors, alumni, or new students? Finally, at what stage is the campus in the change process—is internationalization an add-on, infused in activities, or transforming campus understanding and attitudes? To meet the needs of students and faculty in a rapidly changing world, internationalization efforts must be both comprehensive and systematic (Brustein, 2009).

RECRUITMENT, ADMISSIONS, AND SUPPORT SERVICES FOR INTERNATIONAL STUDENTS

Enrollment of international students is central to internationalizing US campuses. In the 1970s and 80’s, campuses did not pay special attention to international students as they were typically strong students with resources who chose US education because of its quality. Institutions invested neither in recruiting nor in specialized support services as the numbers were insignificant. As international students were increasingly welcomed as a form of development assistance to countries without strong higher education systems or sufficient opportunities for their own young people, both social and financial support were required. Currently, campuses invest in the over 600,000 international students studying in
the US expecting them to contribute to both institutional revenues and the quality of education for US students (Institute for International Education, 2010).

IR offices routinely collect demographic information on international students for the annual Fact Book and external reports. Using data such as from the Institute for International Education (IIE) and NAISFA: Association of International Educators, IR staff can research the trends in countries of origin, average family income, available government support, and desired programs of study by country to help the admissions staff shape an effective recruiting strategy that matches students’ and institutional strengths. To guide admissions decisions, the IR staff can study the predictive value of standardized tests such as TOEFL and GMAT on academic success. When students are conditionally admitted and required to study intensive English, IR can evaluate the effectiveness of the program as a source of additional well qualified students.

Once international students are enrolled, standard IR studies of academic progress, retention, and graduation rates provide important information for planning support services. To help improve services, the IR office may design focus group interviews with newly enrolled international students to identify how best to eliminate barriers to enrollment such as complicated visa processes and develop retention support such as pre-arrival orientation materials and on-campus programs. A careful audit of the same issues for all students may well show that many subpopulations, not just international students, benefit from targeted services.

IR also has an important role in cost benefit analyses. Although the Department of State—Education USA Advising centers and other networks are effective in recruiting international students, campuses bear additional costs for travel, specialized staff, tailored recruiting materials, in-country activities, and financial aid. IR can analyze the cost to recruit an international student, average net tuition, and success of students by country. As financial pressures mount on US campuses, accurate information about both the investments and real financial return of international students is needed.

Where competition for admission is keen, whether it be for Harvard or the University of Virginia, some observers argue that giving spaces to international students is unfair to US students. At many public institutions, the state taxpayer even finds a student from a neighboring state suspect. To encourage community support, IR offices routinely conduct Economic Impact Studies to demonstrate the multiplier effect of direct institutional investments in the community. Just as tuition revenue from out-of-state residents is reported for public campuses, a further breakout of international tuition revenues for both private and public campuses can aid budget planners and public relations. As of 2010, international students were estimated to add 17 billion dollars to the US economy (Institute for International Education, 2010). Data by state is readily available as well.

The majority of international enrollments in graduate programs are in science and technology programs offsetting the significant decline of US students in these fields (Hoffer, Hess, Welch, & Williams, 2007, p. 27). IR professionals at campuses that are filling some of the major skill needs of the US could also analyze the impact of their investment in international students on those sectors of the US economy. Although such studies are complex—requiring new definitions from “brain drain” and “brain gain” to “brain circulation”—they are worth the time of IR as the results can lessen negative public attitudes. Reporting on the number of students who return to their home countries can support the argument that the campus is making an important political and social investment in national security and technical assistance.

The economic benefits are often easier to quantify than the positive academic benefits of enrolling international students. Typical descriptive studies of student academic outcomes or self-report surveys are insufficient evidence that diversity is an educational benefit for all. As higher education becomes more sophisticated about the need to structure interactions in order to gain the cultural and social benefits of a diverse student body, the research efforts related to those initiatives must become equally sophisticated (Milem, Chang, & Antonio, 2005; Leask, 2009). IR can help both the International Student Services staff and academic departments conduct qualitative studies to increase understanding of not only the needs of international students as they “fit in” but also the contributions of international students as campus change agents.
STUDY ABROAD AND STUDENT EXCHANGE PROGRAMS

Long before campuses undertook systematic efforts to internationalize, many institutions supported Junior Year Abroad, especially for foreign language majors, either with overseas institutions or at their own overseas sites (Hoffa & DePaul, 2006). Whereas international experiences of the 60s and 70s were limited, the internationalization goals of the 21st century recognize that knowledge of world affairs and cross-cultural competence are essential for career success and effective citizenship and urge all students to have an international experience (Stallman et al., 2010). Despite encouragement from legislators, foundations, administrators, and faculty, US higher education is far from that target as less than 10% of all students participate in any form of learning abroad (O’Hara, 2009), and the majority continue to be white, female, middle class, full time, and majoring in liberal arts (Siaya & Hayward, 2003).

Some of the factors that affect college going and completion rates also impact the decision to study abroad, for example, level of parental education and family income. Knowledge of the extensive research on the individual student factors that inhibit or encourage participation, ranging from concerns about food, missing friends, and safety to positive attitudes about travel and better career prospects, can help an institution understand how to design and promote its study abroad programs (Naffziger, Bott, & Mueller, 2008). For example, institutions serving large numbers of working adults will find that job and family responsibilities are barriers. IR studies can also reveal institutional barriers, such as faculty attitudes, course requirements, scheduling, and insufficient staff support. IR staff will find a review of research studies useful, both for identifying issues and for ideas about methodologies.

Some institutions have been able to eliminate many of the structural barriers by joining consortia that facilitate student exchanges. Pre-approved credit transfer and payment of tuition at the home institution can be handled through such networks as the International Student Exchange Programs (ISEP). For students willing to go for a semester, this type of program is effective. However, if institutions want all students to have an international experience, both better research and more innovation in program design are necessary. Careful surveying may reveal that students in a particular program will miss a sequence of courses if they take a semester off but could fit in a summer experience, or students with no foreign language would be interested in programs in English speaking countries such as India and Australia.

IR support in the early stage of program planning is critical. Many campuses have addressed cost issues by moving from London and Paris for less expensive locations only to find that students are reluctant to go to Kenya or Viet Nam on their own. The short term faculty-led international experience is the fastest growing form of study abroad as it can be tailored to both program and student needs (Spencer & Tuma, 2007). For the student reluctant to be without US amenities for even three weeks, an alternative spring break service-learning opportunity to rebuild homes in Haiti has appeal because it is only one week and feels more manageable. The least disruptive international experience of all, and most cost-effective, is a shared course taught by professors in two countries using video links and e-mail chats to expose students to another culture without leaving home.

IR has an important role in assessing learning to help students and faculty understand the degree of global understanding and personal growth from each of these many types of international experiences (Engle & Engle, 2003). For example, the impact of interaction with local culture through home stays, work experience in another culture, or summer school abroad can be weighed against US-based experiences such as living in an International House with international students, an internship in a Spanish language bank, or service learning with an immigrant community. Assessments can be developed by the IR staff in collaboration with the faculty and students and provide insight into how best to use resources and advise students.

CURRICULAR INITIATIVES

Internationalization of the curriculum takes many forms from the traditional foreign language study and area studies majors to courses on international topics and the integration of international materials into many courses. These initiatives aim to prepare students for citizenship, careers, and personal
competence in an increasingly international and multicultural world. On many campuses, IR is tasked with supporting assessment of student learning by helping faculty refine learning outcomes and identify indicators by which a student will demonstrate the related knowledge, skills, and attitudes. With clear outcomes, faculty can align their pedagogy, materials, and assessments of individuals and courses. IR can help develop curriculum maps showing at what point the “learning” is introduced, developed, or mastered, recognizing that learning is an incremental process. IR staff can also help faculty locate useful assessment rubrics (Rhodes, 2010).

Many campuses with well-developed assessment programs find they were designed long before sensitivity to internationalization developed, and do not reflect current learning goals with sufficient direct and indirect assessments at the level of the major and the overall degree program. To close the gap, IR must regularly review their own studies and surveys to make sure that international learning goals are integrated into program review, accreditation self-studies, employer surveys, and the many other institutional effectiveness processes that IR oversees.

Depending upon the curricular model for internationalization, assessment will be more or less complex. For example, if every student is required to take an international course, then the final exam can be the form of assessment. If the curriculum integrates international issues throughout a series of courses, it is more challenging to determine the cumulative effect of addressing issues in different contexts and disciplines. If the international experience is primarily a co-curricular one based on Culture and Language Days and International Week, it is very challenging to identify the learning and the measure. For example, what construct does having close friends from other cultures represent? IR will need to evaluate not only the validity of various measures, but also the reliability of formats such as the typical self-reporting on a senior exit survey. Is a positive response to “respect for others” a true measure of how students behave? Finally, those campuses who want to determine value added will need to conduct pre-and post-assessments thus making assessment even more complicated and time consuming.

To some extent, campuses are relying on integrating into the institution as many different forms of international experience as possible in the hope that every student will benefit. Given that all campuses must make informed choices about how to use their resources, IR increasingly must assess learning from the standpoint of cost-benefit. Integration of diverse cultural frames of reference throughout many courses is not only less expensive than launching many sections of a new course, but also more effective because the learning is reinforced many times. Using the international resources on the campus, both faculty and students, is less expensive than sending students abroad, but not as powerful as an immersion experience. To stretch their own limited resources, IR staff might engage faculty and students in action research projects that can contribute to both individual learning and institutional learning about internationalization.

ROLE OF FACULTY IN INTERNATIONALIZATION

The role of faculty in internationalization is varied including, through the presence of international faculty on US campuses, teaching international topics, and conducting research with colleagues abroad. As campuses internationalize, some resistance is inevitable as faculty need time and support to adapt their courses, adjust their pedagogies to a more diverse student body, and understand colleagues from different cultures. Faculty attitudes and involvement are highly individual, vary by discipline, and are influenced by colleagues and personal experiences. Because faculty play a central role in advancing campus efforts, the stated institutional commitment to internationalization must be supported with good information, targeted resources, and appropriate rewards aligned with the goals.

Although IR staff can benefit from the many published studies such as in the Journal of Research in International Education, they will find it more valuable to conduct studies of the faculty role in their own institution. For a campus just beginning to internationalize, IR can initiate the effort with an audit of faculty readiness and degree of commitment to internationalization. This self-evaluation might focus on input measures such as field of specialization, foreign language competency, and travel for research, as well as outcome measures such as international courses taught, integration of international issues, and
international topics of research. More sophisticated institutional research might address some of the process measures such as involvement with international students and engagement with international faculty.

Using these periodic reviews, administrators can decide where to invest to support both US and international faculty and track progress toward institutional internationalization goals. A complete inventory of faculty interests, needs, and activities can help key administrators, such as a Vice Provost for International Initiatives, strengthen connections among individuals, projects, and faculty development activities. For example, investing in faculty to help them go abroad clearly stimulates international understanding. When faculty return, they not only make changes in the material they teach and their research, but also take on responsibility for contributing to campus international activities. They become advocates for study abroad and are more culturally aware in their own classes. They recommend that colleagues go abroad, and they stay in touch with their international hosts, building an effective network for continuing activities. Visiting scholars also have a strong impact on their hosts and institutions as they bring new approaches to research problems and new perspectives to courses (O’Hara, 2009). The IR office can track both the initial faculty development activities and the multiplier effect on other activities through well designed audits and surveys.

As faculty recognize that a diverse student body presents particular types of culture-based issues, they need a broader repertoire of teaching approaches. At the same time, attention needs to be paid to how students evaluate the effectiveness of teaching methods and courses. Challenging the ideas presented in class or offering a critical analysis of readings are new behaviors for international students from traditional systems where the faculty member is in charge and the rewards come from parroting back the lectures. Thus a faculty member who requires class participation and group projects may get a negative review from international students unfamiliar with American-style pedagogy. Similarly, international faculty with a more formal pedagogy may be misunderstood and downgraded by US students who expect informal give and take in the classroom. Low teaching evaluations would have a chilling effect on change efforts. IR can help design evaluation instruments that are sensitive to these issues and help interpret results for the purpose of development not just evaluation.

Evaluation criteria for tenure and promotion must also reflect internationalization as a priority. Traditional measures of research activity may need to be updated so that the faculty member who attends an international conference or publishes in an international journal is not penalized because the venue is unfamiliar or the journal ranking is difficult to locate. Training grants and consulting projects abroad need not be called service and given less credit than action research in the very same settings. The IR office may not be able to influence directly these standards, but can include data on international activities in the annual Fact Book and reflect internationalization in the quality measures for program review and accreditation.

To some degree, internationalization efforts require innovation, collaboration, and interdisciplinary work—all activities that involve some risk of not succeeding in the initial stages. Young faculty often have more international and interdisciplinary experience and are willing to try new things, but they are also vulnerable to pressures to do what is expected in order to get tenure. Ensuring a safe environment for experimentation is essential if more faculty across all disciplines are to be fully engaged in internationalizing the campus. Qualitative studies can provide valuable information to supplement surveys and audits. The IR staff may need to take the initiative to let deans, department chairs, and faculty take advantage of their expertise.

RESEARCH, CENTERS, AND INTERNATIONAL COLLABORATION

Creating and disseminating new knowledge is a fundamental purpose of higher education. Thus the diverse research activities of an institution will also reflect the progress of internationalization, for example, an increase in research on particular geographical areas, research collaborations with scholars in other nations, multinational government funded projects, and centers for studies on topics with a global
impact such as climate change and population. In addition, the scholarly work of most fields will show a broader understanding of the social, cultural, economic, and political contexts.

Typically, IR has played a tangential role in supporting research and limited its interest to reporting the amount of grant funding and the number of visiting scholars for the Fact Book or reporting on research unit productivity and quality for internal program review. If the Institutional Review Board is hosted in the IR office, the staff will be involved in approving project designs and data gathering instruments and need to know the regulations on human subjects research in other countries. Depending upon the organization of the university, support for establishing formal networks or applying for research grants, for example, may rely on a database of faculty interests and activities housed in IR.

As campuses interact and take on more applied research and training, found research parks, and form international partnerships focused on knowledge transfer, new units and new policies are needed to manage the financial arrangements and legal matters involved. Technology transfer, patents, and protection of intellectual property in an international environment require specialized expertise (Maskus, 2004). This expanded role for higher education in international economic development may encourage institutional researchers to develop more complex direct and indirect measures for their economic impact studies. IR staff may also find they are called upon not just to inventory results for annual reports but also to participate at the initial stages by providing data for business plans, conducting policy analyses for these new activities, and evaluating whether the initiatives are in the institutional and national interest (Peterson, 2003).

International doctoral students play a major role in the research capacity of a campus and the commitment to transfer of knowledge abroad (COSEPUP, 2005). IR may find that in the course of analyzing data on graduate students, such as time to degree for doctoral students, a finding that is not congruent with institutional goals emerges. It is not uncommon for international students to take longer than expected for a variety of reasons, including being required to spend significant time supporting the activities of a research center, finding it difficult to get funding to do field work, or being reluctant to finish so they can continue to live in the US on a student visa. IR can provide the data for academic administrators to evaluate program effectiveness and efficiency.

Internationalization of a major research institution requires significant funding for facilities, fellowships, and faculty exchanges and developing long terms relationships with other ranked international universities. Justifying these investments cannot always be based on immediate return, yet at the same time cannot be a drain on other institutional priorities. Faculty may avoid taking on large scale projects with the many partners and deferred results, even if there is potential for wide impact, if they do not have an agreement with the institution about how they will be supported and how their work will be evaluated. For smaller campuses where research impact is not the major focus, faculty can shape their research agendas and create positive collaborations by taking advantage of the ease of communication, travel, and access to international data bases. In either case, large research campus or small baccalaureate institution, research productivity is one of the measures that institutional researchers use to assess educational quality and institutional effectiveness. Both internal and external reports should list international projects and activities separately and quantify the work.

OVERSEAS CAMPUSES, DUAL DEGREE PROGRAMS, AND PARTNERSHIPS

No aspect of internationalization of US higher education is more controversial than the marketing of a broad range of education services abroad (Ross, 2008). Rather than bring international students and faculty to the U.S., many institutions provide on-line instruction, set up branch campuses, and develop dual degree programs as part of their commitment to internationalization. The impetus behind these initiatives includes the social function of expanding access to educational opportunities and technical assistance; the economic interest in enrolling more students often subsidized by local governments; and the political focus on stabilizing critical areas of the world through education.

Turning education into an export commodity seems antithetical to the ideals of U.S. higher education, yet at the same time, hoarding this remarkable resource is hard to defend as it privileges rich nations and
restricts the development of others. Although the IR staff is unlikely to be at the table for a discussion of purposes or means, they can contribute to the SWOT analysis at the planning stage by asking key questions such as: What is the demand for the program? Will tuition be set by the local market? What incentives will attract and retain faculty? (Ruby, 2010). Once implemented, IR will analyze the program results with special attention to quality and accreditation standards that require a degree of control over the “product.”

Designing dual degree programs where students take some of their courses at the US campus and some at the overseas campus, earning a degree from both, is easily designed, managed, and financed. The usual IR studies of students, faculty, and outcomes can be conducted collaboratively for this model. Extending on-line education abroad is more difficult because of a host of issues ranging from who owns the course to how to verify the identity of the students, but still this form is one of the least risky of these new ventures. Several years of experience with distance learning has helped campuses focus on both sustainability and quality. IR may be asked conduct a retention study or compare fully on-line instruction with a mixed model that includes some face to face instruction with on-site faculty.

Setting up academic centers abroad is the most challenging model because of the regulatory environment. Beginning in the late 80s, several US campuses began establishing overseas branches to offset declining enrollments at home and have successfully established a niche in global education. A more recent model has countries such as China and Qatar luring top ranked US universities with extraordinary financial incentives to set up full campuses or join a shopping mall of programs offered side by side with other US institutions—all aimed at addressing the need for more highly trained local workers. At some point, IR may be involved in verifying quality and be asked to compare quality to the home campus standards.

Enough has been written about this “educational gold rush” to make any campus wary of new ventures (Verbik & Merkley, 2006). Administrators of US campuses report they receive numerous invitations to cooperate every week and must have criteria for evaluating the opportunities to determine whether there is mutual benefit. Successful projects require an entrepreneurial spirit, a high tolerance for risk, and sufficient risk capital. Many campuses are unprepared to absorb losses or are naïve about expecting additional resources to come once the project is underway. The number of years it takes for any program to gain traction is often underestimated and some campuses pull out of relationships after only a few years, disappointed that success has not come sooner. Whether ending a collaboration after just a brief time damages the reputation of the US campus cannot be measured very easily.

In this diverse environment of multiple models for delivery abroad, IR staff must continue to rely on good research techniques, use standard performance indicators related to the strategic plan, and conduct assessments of quality for improvement and accreditation. Following trends in the annual Fact Book and comparing the overseas data to the main campus can help with future planning. The most challenging task will be to find innovative ways to apply cost/benefit analysis (Knight, 2008).

ORGANIZATIONAL SUPPORT AND FUNDING FOR INTERNATIONALIZATION

Effective internationalization requires a systematic strategy for the future of the university and sufficient staff to coordinate and energize the efforts. Several truisms are pertinent: “If it is the responsibility of all, it is the responsibility of none.” and “What is measured will get done.” The IR role in supporting planning and decision making in this increasingly complex arena will vary depending upon institutional size, administrative structure, and funding arrangement on a given campus or in a system. Because international activities have no single home or boundary, the management structure and locus of decision-making are often unclear. The more diverse and dispersed the activities, the greater the need for coordination, cooperation, and shared information. Many large campuses solve the problem of diffused authority by creating a new administrative position supported by a staff to manage a wide variety of tasks ranging from visits of international dignitaries to defining policies for international partnerships. Centralizing functions benefits the faculty who can focus their energies on teaching and research, and benefits other administrators who are assured there is a repository of experience for facilitating
international activities consistent with university policies and legal requirements. The IR office plays a key role in sharing the inventory of activities and assessment data with those responsible for results.

This centralized administrative role requires both managerial skill and collaborative leadership to bring coherence to international activities without stepping on the toes of other administrators, faculty, and staff. The individual in this role may accept the authority of others on a variety of matters such as admissions or faculty hiring, but direct this energy toward shared goals. Absent this collaborative leadership ability, those in the role risk being criticized by faculty as one more unnecessary administrator who is a barrier rather than a facilitator of their ideas and goals. In short, effective shared governance recognizes that the impetus for internationalization must come from both the top and the bottom and be sustained through communication and action.

As noted earlier, expertise in cost-benefit analysis is increasingly important as international activities have both financial and opportunity costs. What may have been a good idea at the initial stage may not be sustainable when time and resources are limited. For example, at one time, campuses were willing to support an international faculty member securing a long term visa, but as the costs, paperwork, and legal hurdles have increased since 9/11, many campuses are no longer willing to foot the bill. Research centers once could be started at “no cost” by faculty with enthusiasm and specialized interests, but as campuses adopt more defined budget models, the centers need to cover all their costs including graduate fellowships, faculty reassigned time, and facilities.

IR studies can not only support financial decisions but also analyze alternative approaches to achieving institutional goals. For example, if choices must be made about international experiences for students, it helps to know the efficacy and costs of various models. How should the budget committee decide between an investment in student and faculty travel or an investment in videoconferencing to allow students and faculty to interact with colleagues at an international sites?

The support role of IR staff in internationalization is invaluable as they are called on to help ask the right questions, identify appropriate measures of progress, design studies to answer real questions, analyze data for improvement, and report data to aid in decision making. However, this cannot be a passive role. The IR staff must be proactive, change oriented, and advocates for their findings—including, stating when initiatives are not successful. Their effectiveness will be further enhanced by keeping up with the literature and following research in this dramatically changing field.

REFERENCES


The Computer-Based CPA Exam: Have Changes Impacted Perceptions of the Prestige of CPA Certification?

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The Uniform CPA Examination is recognized as a premier professional licensing test and serves to protect the public interest by ensuring that only qualified individuals become licensed CPAs. In April 2004, the licensing process was changed with the launching of the computer-based uniform CPA exam. Switching from the paper-and-pencil exam to the new computer-based CPA exam marked one of the most significant changes in the history of the examination. The primary purpose of this paper is to report the findings of a survey given to accounting practitioners, accounting educators, graduate accounting students, and business professionals concerning the perceptions of the computer-based CPA Exam, in addition this paper will update, extend, expand, or revisit prior research. Survey results indicate that the switch to the computer-based exam has not had a negative impact on the prestige of the CPA designation.

INTRODUCTION

The designation of Certified Public Accountant (CPA) is one of the most recognized professional credentials in the business world. Among other requirements, CPAs are required to pass the Uniform CPA Examination. The CPA Exam is recognized as a premier professional licensing test and serves to protect the public interest by ensuring that only qualified individuals become licensed CPAs. The majority of states/jurisdictions require a minimum of 150 semester hours of education from an accredited college or university as a prerequisite to CPA certification. In April 2004, the accounting profession’s licensing process was changed with the launching of the computer-based CPA Exam. Switching from the paper-and-pencil exam to the computer-based exam marked one of the most significant changes in the over 100-year history of the CPA Examination. The change in exam format had wide-reaching consequences, including altering the academic accounting curriculum at most colleges and universities.

The primary purpose of this paper is to report the findings of a survey given to accounting practitioners, accounting educators, graduate accounting students, and business professionals concerning the perceptions of the computer-based CPA Exam, in addition this paper will update, extend, expand, or revisit prior research. This survey examined the perceptions of respondents and these perceptions were not based on experience or direct knowledge. Survey results indicate that the switch from the paper-and-pencil exam to the computer-based CPA Exam has not had a negative impact on the perceptions about the prestige of the CPA designation. Also, survey respondents perceive that the questions on the computer-based exam are as rigorous as the previous version.
The development of the computer-based exam, a process that took more than five years to complete, was a collaborative effort by the American Institute of Certified Public Accountants (AICPA), the National Association of State Boards of Accountancy (NASBA), the technology-based testing service, Thomson Prometric, and the state boards of accountancy. The computer-based CPA Exam was developed to achieve a better alignment between the examination and professional-practice requirements. The new CPA Exam was developed carefully, with the changes based on evidence of practice necessities, with contributions from regulators, educators, and accounting professionals.

While the most notable change in the Exam was the transition from a paper-and-pencil exam to a computer-based exam, important content revisions were made as well. The computer-based exam has been revised to more closely align with an entry-level CPA’s real-world professional responsibilities. These revisions included amended content, format and delivery, and a new case-study component called “simulations”. The result was a computer-based exam with four sections: (1) Auditing and Attestation (AUD), (2) Financial Accounting & Reporting (FAR), (3) Regulation (REG), and (4) Business Environment & Concepts (BEC). Candidates may sit for the CPA Exam at any Thomson Prometric testing center. The subject areas tested in the paper-and-pencil section, Accounting & Reporting (taxation, governmental and nonprofit organizations, and managerial), have been separated and grouped with subject matter that is more logically related. Specifically, the topic of accounting and reporting for governmental and nonprofits has been placed in FAR; taxation and business law have been placed in REG; and managerial accounting has been placed in BEC. Exam candidates are required to demonstrate general business knowledge that is related to auditing and financial reporting in a new section, BEC, which tests candidates’ knowledge of certain areas of economics, finance, strategy, and information technology.

In addition to the content changes, administration of the Exam has been updated with expanded testing opportunities and increased flexibility. Exam candidates now have more opportunities per year to take the Exam and are no longer required to take all four sections at one time. Pre-1994, the CPA Exam was given over a three-day period biannually in May and November at limited specified testing locations and totaled 19.5 hours. In May 1994, the CPA Exam was shortened to 15.5 hours given over two days, still biannually in May and November. Historically, a score of 75 percent was required to pass any given section and conditional requirements were placed on the scores of the remaining sections, which were established by the state boards of accountancy. Typically, a candidate also needed to obtain scores of at least 50 percent on each section and pass two sections with a score of 75 percent to receive credit for those sections. There are no such conditional requirements on the computer-based exam. With the computer-based format, individuals deemed as eligible candidates by their state boards of accountancy can schedule any or all sections in the first two months each quarter, throughout the year. Within broad constraints, candidates are able to choose the date, time, and test center most convenient for them. Once a section is passed, most jurisdictions require candidates to pass all remaining sections within 18 months to receive credit on the previously passed section(s).

Beginning in January 2011, other major changes were made to the CPA Exam. The AUD section was reduced by 30 minutes; while the BEC section was increased by 30 minutes to accommodate the addition of constructed response essays. The constructed response essays were removed from the other three sections of the Exam. Six to seven shorter task-based simulation problems replaced the longer simulations in REG, AUD and FAR. For the first time, candidates were responsible for knowing international standards. As happened before the move from the paper exam to the computerized exam, the number of candidates increased in the period prior to adoption of the new exam policy.

LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

In 1997, AICPA and NASBA formed a joint committee called the Computerization Implementation Committee (CIC). This committee’s primary responsibility was to develop and implement a computerized Uniform CPA Examination by 2003. The CIC identified several benefits in changing the CPA Exam to a computer-based examination:
1. Testing an expanded range of knowledge and skills that more closely reflects the current practice environment (e.g., research skills in an electronic environment).
2. Gathering more information about candidates and determining if there is bias towards any group of candidates.
4. Allowing questions to be more readily added, modified, or deleted.
5. Reducing subjectivity in grading.
6. Allowing candidates greater flexibility in sitting for the Examination by offering the Examination more frequently (AICPA, 1998).

One of the primary goals of the CIC was to establish a computer-based CPA Exam that provided reasonable assurance that successful candidates had the necessary knowledge and skills needed to perform in the current electronic business environment. In the late 1990s, the world was already technologically driven with the use of personal computers and the Internet. The CIC believed that a new computer-based exam was necessary for the accounting profession to help better prepare entry-level accountants for the more complex and demanding business environment. Therefore, the focus of the computer-based CPA Exam was on better serving entry-level accounting professionals and helping to ensure the continued success of the accounting profession. Based on the previous statements the following hypothesis stated in the alternative form was developed:

\[ H1: \text{The computerized CPA exam is perceived to better prepare new accounting professionals for the current business working environment compared to the previous paper-and-pencil version of the CPA exam.} \]

Prior to the inception of the computer-based CPA Exam in 2004, Mankin (2000) conducted research by surveying the perceptions of members of the AICPA, NASBA, and business professionals about the change to a computerized CPA Exam. The following statement from the Illinois CPA Society in 1996 provided the motivation for the research:

There is concern that a computerized exam will change the image of the CPA profession. The general public identifies the rigor of the CPA Examination with the prestige of the CPA. Passing the Exam is seen as a 'rite of passage'. If the exam is shortened or altered, there are serious concerns that the stature of the CPA designation will decline.

The results from the Mankin study suggested that a computerized exam may have a lower perception of prestige and difficulty than does a written CPA Exam:
1. In all cases the subjects indicated their perception of the prestige and difficulty of the written CPA Exam was higher than the perception of the computerized CPA Exam.
2. The AICPA members had a significantly lower perception of the prestige and difficulty of the computerized CPA Exam than did the other two groups.
3. Generally, there was no difference in the perception of prestige and difficulty of the written CPA Exam among the three groups (Mankin, 2000).

This study predicted that the forthcoming computerization of the CPA Exam could reduce the public’s and the profession’s perception of the Exam’s prestige and difficulty. Based on the Mankin findings the following hypothesis stated in the alternative form was developed:

\[ H2: \text{The change to the computerized CPA exam has affected the public and professional perception of the prestige of the CPA designation in a negative manner.} \]

In 2008, Howell and Heshizer published a paper in which they argued that the new computer-based exam testing format is less difficult than the old testing format; however, they did not provide any factual
empirical evidence on which to base this conclusion. They assumed that the characteristics necessary to be successful on the CPA Exam or to be successful as a public accountant have not changed and that the rigorous design of the old testing format would better reveal characteristics that contribute to passing the CPA Exam on fewer attempts. Their research used data collected from candidates who sat for the CPA Exam before the computer-based exam went into effect. To date, no additional research has been performed to validate or contradict their assumptions that the computer-based CPA Exam is easier than the old version or that the characteristics for successful candidates have not changed because of the exam format change. Based on the results in the Howell and Heshizer study, the following hypothesis stated in the alternative form was developed:

\[ H3: \text{The previous paper-and-pencil version of the CPA exam is perceived as more rigorous than the current computer-based CPA exam.} \]

In 2006, Specht and Sandlin performed a study to determine the impact the computer-based exam had on the accounting curriculum at colleges and universities. The survey included a listing of course content areas and learning activities designed to enhance student abilities as tested by the revised Exam. Educators were asked the extent to which they had incorporated the listed subject matter or activities into their courses and whether this had changed in response to the new CPA Exam content and requirements. The first set of questions included asked about the educators' use of learning activities designed to improve student research skills. The survey found that students were being instructed in the use of research methods to some extent by 72 percent of educators, and online research in accounting courses was required to some extent by 14 percent of educators. In addition, a large majority (83 percent) of accounting programs used case studies requiring student research and analysis as well as the exercise of personal judgment. Educators were asked the extent to which they had changed their course requirements in response to the format and content of the new computer-based CPA Exam. The largest increase was in research methods, with 46 percent of educators reporting increased focus on student use of research methods, and 40 percent reporting an increased focus on online research as well as student research and analysis.

Secondly, the Specht and Sandlin survey asked about communication skills assignments. Sixty-six percent of educators required in-class student presentations, 87 percent required the preparation of spreadsheets, and 68 percent assigned business communication papers. Only 40 percent of educators used timed in-class assignments. A third set of questions related to a candidate's ability to analyze and use information from various types of business pronouncements. In general, the findings revealed that the majority of programs used SEC filings, annual reports, authoritative pronouncements, and current business or accounting periodicals. Finally, the results indicated that AACS-accredited programs (as compared to non-AACSB programs) added more business communication assignments and made more use of professional periodicals. Similarly, public universities (as compared to private universities) had increased their use of case studies for purposes of research and analysis, which might better prepare students for the testing of higher-level cognitive skills. The Specht and Sandlin study revealed that many accounting programs did change their curricula based on the computer-based CPA Exam. These results indicate that restructuring the CPA Exam affected what is being taught in colleges and universities.

The number of CPA Exam candidates increased dramatically prior to the introduction of the computerized exam and declined significantly in 2004 when the exam changed to a computer-based exam, which, according to the AICPA, was an expected result based on similar experiences for other high-stakes tests that converted to computer-based exams. In 2006, Weidman wrote an article entitled “Are we failing the exam?” concerning the lack of accounting graduates who are taking the CPA Exam. According to Weidman, it was clear that the dearth of individuals taking the CPA Exam was not due to fewer accounting graduates, because the number of accounting graduates had increased while the number of those sitting for the Exam had decreased. The AICPA stated that enrollment in accounting programs increased 19 percent between the years 2000 and 2004. Weidman came to the following three conclusions concerning why accounting graduates are not sitting for the CPA Exam:
1. Not enough time, specifically time to prepare for the Exam.
2. Accounting graduates do not believe certification is important or that it is aligned with their career goals.
3. The change to the computer-based CPA Exam (Weidman, 2006, pg. 29).

In June 2005, NASBA, AICPA, and Thomson Prometric released a study that found that the number of candidates taking the CPA Exam dropped almost 37 percent after the introduction of the computer-based CPA Exam, with the primary reason given by candidates for not taking the Exam was that they were too busy. Weidman developed his conclusions based on his own experiences from speaking at numerous colleges. Another explanation might be that the rush of candidates to take the exam before the implementation of the computerized exam depleted the number of candidates taking under the new format. Moreover, NASBA’s annual information about Exam candidates shows the following number of scored sections has increased dramatically since 2004: 2004 – 107,954; 2005 – 178,266; 2006 -202,354; 2007 –224,494; 2008 –247,351; 2009 –266,874; and 2010 – 307,573 (Board of Examiners Update, 2011). According to the AICPA 2008 Trends Report, the number of exam-takers has increased more than 50 percent since 2004 and continues to rise; the number of first-time candidates in 2004 – 44,316 rose to 195,240. These statistics indicate that the number of accounting graduates sitting for the exam is moving in a positive direction. Undergraduate accounting enrollments also continue to increase: from 142,735 in 2003-2004 to 187,534 in 2009-2010 (AICPA Trends, 2011). While a number of factors have influenced this increase, changes to the CPA Exam appear to have had no negative impact on students’ decisions to major in accounting.

There were concerns that major changes in the CPA Exam format might lead to a decline in the number of candidates sitting for the Exam. Although it appears as though the number of Exam candidates decreased sharply temporarily after the advent of the computerized format, comparison of these numbers may be misleading. Under the paper-and-pencil format, candidates who took the CPA Exam in both May and November were counted twice. With the computerized format of the CPA Exam, each candidate is counted only once per year regardless of how many times they attempt a section or in how many windows they test. In light of the way candidates were counted, it is likely that while the number of candidates initially decreased somewhat from the paper-and-pencil format, the decrease is much less pronounced than it might appear, and the numbers have moved toward parity with the pre-2004 numbers (AICPA, 2008). In July 2009, the computerized CPA Exam reached the one-million mark for tests administered, according to the AICPA, NASBA, and Thomson Prometric. “Delivering this exam one million times since it moved to computer in 2004 is a true testament to the success we’ve had with the delivery model,” said Michael Brannick, president and CEO of Prometric, adding “exam candidates have truly embraced the user-friendly interface, as well as the flexibility it provides with regard to exam administration times and locations” (AICPA, 2009). Based on these facts, the following hypothesis stated in the null form was developed to investigate the perceptions about the impact the new format has had on the number of candidates sitting for the exam:

\[ H4: \text{The change to the computerized CPA exam has had no impact on the number of accounting graduates who are sitting for the CPA exam as perceived by those surveyed.} \]

An additional issue identified by survey responses in the Mankin study concerned the implication the switch to a computer-based CPA Exam would have on passing rates. According to the AICPA, the cumulative uniform CPA Examination passing rates for 2010 were as follows: (1) AUD - 47.80%, (2) BEC - 47.29%, (3) FAR - 47.81%, and (4) REG - 50.66%. These rates were much higher than the pass rates on sections of the previous pen-and-pencil exams. In addition, during the 3rd quarter of 2010, every individual section except AUD (49.40%) had passing rates in excess of 50 percent, which, historically, has not been the case. These increasing rates have caused some to question the difficulty of the computer-based exam compared to the old version, while others believe that the passing rates should be higher and
view the increases as a positive result. Based on the preceding information the following hypothesis stated in the null form was developed:

\[ H5: \text{The perception is that passing rates over 50 percent on any section of the CPA exam are not too high.} \]

In 2004, Snyder discussed the results of a pilot study conducted in the fall of 2003 where 80 CPA candidates, who had taken the last paper-based exam in November 2003, were introduced to the new computer-based CPA Exam and asked to provide feedback. Overall, the pilot study participants judged the computer-based CPA Exam to be a change for the better and that taking the Exam on a computer made more sense in the current business environment. Pilot study participants also had the following comments: (1) Familiarity with the computer is a big plus in taking the test; (2) The testing environment is much more comfortable; (3) Scheduling flexibility makes studying easier; (4) Using the tutorial is vital for success; and (5) Real-world experience is helpful.

**RESEARCH METHODOLOGY**

Surveys concerning the perceptions of the computer-based CPA exam (Appendix A) were given to accounting practitioners, accounting educators, graduate accounting students, and business professionals. Survey respondents included attendees of the American Accounting Association (AAA) Southeast Regional meeting, attendees of an alumni accountancy weekend at a major university, and graduate accounting students. The graduate accounting students had taken at least one section of the computer-based CPA exam. These groups were selected to be surveyed because they all have a stake in the perceived value of the CPA designation and their perceptions are vital to the continued future success of the CPA exam.

Two versions of the survey were distributed, the only difference between the versions concerned question number one. Question number one on the first version asked if the “questions on the computer-based CPA exam were as rigorous the questions on the previous paper-and-pencil version of the exam” and question number one on the second version asked if the “computer-based CPA exam is as rigorous as previous paper-and-pencil version of the exam”. Survey respondents were unaware that separate versions of the survey questionnaire existed. Most subjects would have had actual experience with only one format of the exam, but the survey questions are not asking for knowledge, merely perceptions. The objective of using separate versions was to determine whether or not the format change (taking one section at a time) or the exam content itself was responsible for the perceptions of survey respondents.

**DATA ANALYSIS & RESULTS**

The survey respondents were asked to answer questions related to their perceptions of the CPA exam and the prestige of the CPA designation, Table 1 provides the average response by occupation for each survey question. The respondents were asked to answer the questions using a scale from 1 to 6, with the following values: 1=Strongly Agree, 2=Agree, 3=Somewhat Agree, 4=Somewhat Disagree, 5=Disagree, 6=Strongly Disagree. A total of 153 usable survey responses were collected from respondents. The average respondent had over 18 years of work experience and at least a Masters Degree. Of the 153 respondents, 125 were CPAs.

Hypothesis 1 corresponded to question 2 on the survey. Each version of the survey included the same question 2 and asked the respondents to give a score from 1 to 6 about whether the computer-based CPA exam better prepares young accounting professionals for the current working environment. A Chi-Square test was performed to determine whether the responses for question 2 were statistically different than the expected results. When using the survey midpoint value of 3.5 or equal expected frequencies for each response, results indicate statistical significance at p<.05. An ANOVA was also performed to determine if group differences existed and ANOVA results indicated statistical significance at p<.01 level. A post-hoc
procedure (Tukey’s HSD) was performed to determine group differences and results indicated that the accounting students group was statistically different in their responses from the accounting educators group and the accounting professionals group at p<.05. Overall, these results support hypothesis one that the computerized CPA exam is perceived to better prepare new accounting professionals for the current business environment than the previous paper-and-pencil CPA exam, however it appears these results are being driven primarily by the accounting students group of respondents, which is the group intended to be targeted by the changes.

Hypothesis 2 corresponded to question 3 on the survey. Each version of the survey included the same question 3, which addressed whether the change to the computer-based CPA exam had affected the prestige of the CPA designation in a negative manner. A Chi-Square test was performed to determine whether the responses for question 3 were statistically different than the expected results. When using the survey midpoint value of 3.5 or equal expected frequencies for each response, results indicate statistical significance at p<.001. Therefore, based on these results hypothesis 2 is rejected and it can be concluded that the change to the computerized CPA exam has not affected the public and professional perception of the prestige of the CPA designation in a negative manner. These results were consistent across all groups of respondents.

Hypothesis 3 corresponded to question 1 on the survey. Separate versions of the survey included a different question 1 which addressed the difficulty level of the two versions of the CPA exam. One version of the survey compared the questions on the separate exams, while the other version compared the exams in their entirety. A Chi-Square test was performed to determine whether the responses for question 1A and 1B were statistically different than the expected results. Results indicate that respondents believe that the computer-based CPA exam is not as rigorous as the previous paper-and-pencil version at p<.05 level. However, results also indicate that survey respondents believe that the questions on the computer-based CPA exam are as rigorous as the previous exam questions. In addition, an ANOVA was performed on the two versions of question 1 and the average responses for question 1A and 1B were statistically significantly different at p<.001 across all groups. One respondent commented “The questions on the new CPA exam are every bit as rigorous as the old exam. However, taking one part at a time is much easier than taking four parts at one time”. On the other hand the following comment was given concerning the computer-based format, “Not being able to go back to a previous question because the candidate realizes a previous answer was wrong hides that candidate’s intelligence and is not reflective of the real world or professional practice”. These results partially support hypothesis 3 that the paper-and-pencil version of the CPA exam was more rigorous, although the questions are perceived to be the same difficulty. This mixed result is driven by the format and testing flexibility of the new exam and not the difficulty level of the exam questions.

Hypothesis 4 corresponded to question 5 on the survey. Each version of the survey included the same question 5 which addressed the impact the changing of exams has had on the number of accounting graduates sitting for the CPA exam. A Chi-Square test was performed to determine whether the responses for question 5 were statistically different than the expected results. When using the survey midpoint value of 3.5 or equal expected frequencies for each response, results were not statistically significant. These results do not lead to rejection of hypothesis 4. The conclusion is that the change to the computer-based CPA exam has not impacted the number of accounting graduates sitting for the CPA exam as perceived by the respondents.

Hypothesis 5 corresponded to question 4 on the survey. Each version of the survey included the same question 4 which addressed whether passing rates over 50 percent on any individual section of the CPA are too high. A Chi-Square test was performed to determine whether the responses for question 4 were statistically different than the expected results. When using the survey midpoint value of 3.5 or equal expected frequencies for each response, results were not statistically significant. Accounting Educators were the only group below the midpoint value of 3.5. This result does not lead to rejection of hypothesis 5. The conclusion is that passing rates over 50 percent on any individual section of the CPA are not too high.
Several demographic characteristics were collected from the survey respondents. To determine whether the demographic variables affected the survey results, a series of one-way ANOVA procedures was used. Each demographic variable was used as an independent variable to determine the effect on the dependent variables, results were not statistically different based on demographic variables, and therefore they were excluded during the analysis process.

CONCLUSIONS & COMMENTS

The primary purpose of this paper is to report the findings of a survey given to accounting practitioners, accounting educators, graduate accounting students, and business professionals concerning the perceptions of the computer-based CPA Exam, in addition this paper will update, extend, expand, or revisit prior research. Few studies have been published that relate to the changes in the CPA Examination. One study found negative reactions to the anticipated changes. However, to date no follow-up research has been published to determine the actual impact, the computed-based CPA Exam has had on the perceptions of the CPA designation. Sufficient time has passed since the implementation of the computerized exam to allow for expiration of initial negative responses that change often generates. It is timely to retest these perceptions to assure that the CPA Examination continues to be a premier professional examination. If the predicted perceptions have not reversed, then the AICPA would need to enhance its efforts to educate and assure their audiences of the quality of the computerized exam because perceptions are important.

Survey results indicate that the switch from the paper-and-pencil exam to the computer-based CPA Exam has not had a negative impact on the professional and public perception of the prestige of the CPA designation, contradicting the earlier expectation findings. Also, survey respondents perceive that the questions on the computer-based CPA are as rigorous as the previous version, however overall the previous paper-and-pencil exam is perceived to be more rigorous than the computer-based exam.

In addition, survey results indicate that the computerized CPA Exam better prepares new accounting professionals for the current business working environment compared to the previous paper-and-pencil version of the CPA Exam. However, these results were driven by the accounting students group and if their responses were removed from the data, the results were not statistically significant. Respondent comments concerning this issue included the following statements: “Ability to find information needed to do accounting is emphasized to a greater extent on the computerized exam than it was on the paper-and-pencil exam and this is very important in today’s environment,” and “I believe the computerized exam allows you to learn the material more thoroughly by concentrating on one section at a time, which better prepares you for work.” These results support one of the primary goals of the CIC during the development of the computer-based CPA Exam, which was to create an exam that better served the needs of entry-level accounting professionals. Survey results indicate that accounting students believe that the computer-based CPA Exam better prepares them for the current business environment.

Results also indicate that the switch to the computer-based exam is not perceived to have had a negative impact on the number of accounting graduates sitting for the exam. However, some survey respondents believed otherwise and made the following comments: “It seems to me that the new exam format – as it pertains to exam attempts – is causing fewer attempts. Under the old format the exam was given at the same time each year and everyone could plan for it,” and “Opportunity to sit for the exam more frequently than twice a year, seems to have created a lack of ‘sense of urgency’ to prepare for and complete the exam.” When discussing the one-millionth exam section milestone, AICPA president and CEO Barry Melancon stated the following; “More people are sitting for the CPA Exam because the CPA profession has enjoyed unprecedented growth as an attractive career choice and our research shows that colleges and universities are awarding more bachelor’s and master’s degrees in accounting than at any other time in history” (AICPA, 2009). Results also indicate that, in general, survey respondents do not believe that passing rates over 50 percent on any individual section are too high.

Not surprisingly, a natural bias seems to exist within these survey results. Individuals who have only had experience with the computer-based CPA Exam prefer this format, while older CPAs prefer the
paper-and-pencil format. Regardless of this bias, the results indicate that the perception of the CPA designation has not been tarnished by this change in format, contradicting earlier research findings based on expectations. Possibly the earlier negative reactions were motivated more by a resistance to change in general than the actual change itself. From a big picture perspective, the overall survey results seem to support a successful transition as envisioned by the CIC. The CIC wanted to create a new CPA Exam that better prepared entry-level accountants for the technologically-driven business environment. Results indicate that the computer-based exam is more attractive to younger, computer-savvy accounting students who believe the computer-based exam better prepares them for the working environment. Particularly in light of the finding that the prestige of the CPA designation has not been diminished, these results support the assertion that the new exam has accomplished many of the CIC goals, marking a successful transition. In addition, the computer-based format gives the exam greater flexibility and adaptability.

Regardless of an individual’s viewpoint concerning the computer-based CPA Exam, it is certain that changing the exam format was a significant event that has impacted the accounting profession and accounting education. However, with the limited amount of empirical research performed on this topic, it is difficult to determine magnitude and direction of the change. These survey results refute earlier findings concerning the impact the computer-based CPA Exam would have on the prestige of the CPA designation. Additional research should be performed to evaluate the impact that the computer-based exam has had on the accounting profession, accounting education, and curriculum.

One issue in particular is whether the computerization of the CPA Exam has had any impact on recruiting students into accounting. The steady increases in both number of CPA Exam candidates and in accounting enrollments would suggest that there has not been a negative impact due to the changes in the exam. Students could perceive that a computerized exam is a mark of a more forward-looking and modern profession and would find the opportunity to take the exam in sections to be more appealing.

REFERENCES


http://www.aicpa.org/BecomeACPA/CPAExam/PsychometricsandScoring/PassingRates/DownloadableDocuments/PassRates2010.pdf


**TABLE 1**

**AVERAGE RESPONSE BY OCCUPATION**

<table>
<thead>
<tr>
<th>Survey Scale (1=Strongly Agree, 2=Agree, 3=Somewhat Agree, 4=Somewhat Disagree, 5=Disagree, 6=Strongly Disagree)</th>
<th>Accounting Student 28</th>
<th>Accounting Educator 74</th>
<th>Accounting Professional 36</th>
<th>Business Professional 15</th>
<th>Total 153</th>
</tr>
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<tbody>
<tr>
<td>Q1A: The questions on the computer-based CPA exam are as rigorous as the previous paper-and-pencil version of the CPA exam.</td>
<td>2.34</td>
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<td>2.84</td>
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<td>3.20</td>
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<tr>
<td>Q3: The change to the computerized CPA exam has affected the public and professional perception of the prestige of the CPA designation in a negative manner.</td>
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<td>4.08</td>
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<td>Q4: Passing rates over 50 percent on any section of the CPA exam are too high.</td>
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<td>Q5: The change to the computerized CPA exam had a positive impact on the number of accounting graduates who are sitting for the CPA exam.</td>
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<td>3.53</td>
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<td>N = 153</td>
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</table>

* Statistically significant at p<.05 based on Chi-Square test.
**The average responses for question 1A and 1B were statistically significantly different at p<.001 based on ANOVA results.
***The accounting student respondents were statistically different from the accounting educators and professionals at the .05 level.
****Statistically significant at p<.001 based on Chi-Square test.
APPENDIX A

In 2004, the computer-based CPA exam replaced the paper-and-pencil version of the CPA exam.

Please evaluate the following statements by circling a number on the given scales.
(1=Strongly Agree, 2=Agree, 3=Somewhat Agree, 4=Somewhat Disagree, 5=Disagree, 6=Strongly Disagree)

1. The computer-based CPA exam is as rigorous as the previous paper-and-pencil version of the CPA exam.  
   (Please circle one number)

<p>| | | | | |</p>
<table>
<thead>
<tr>
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<tr>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
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<td>Strongly Disagree</td>
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2. The computerized CPA exam better prepares entry-level accounting professionals for the current business working environment compared to the previous paper-and-pencil version of the CPA exam.  
   (Please circle one number)

<p>| | | | | |</p>
<table>
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<tr>
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<td>5</td>
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<td></td>
<td>Strongly Disagree</td>
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</table>

3. The change to the computerized CPA exam has affected the public and professional perception of the prestige of the CPA designation in a negative manner.  
   (Please circle one number)

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<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

4. Passing rates over 50 percent on any section of the CPA exam are too high.  
   (Please circle one number).

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<td></td>
<td></td>
<td>Strongly Disagree</td>
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</tbody>
</table>

5. The change to the computerized CPA exam has had a positive impact on the number of accounting graduates who are sitting for the CPA exam.  
   (Please circle one number)

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<table>
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<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

Please complete the demographic questions on the back.
APPENDIX A

Instructions: Please place an X in the square or fill in the blank where appropriate.

1. Gender:   _____ Male   _____ Female

2. Age:     _____ 18-24     _____25-34
            _____ 35-44     _____45-54
            _____ 55-64     _____Over 64

3. Highest Education Level:   _____ High School   _____Masters Degree
                              _____ Some College   _____Doctoral Degree
                              _____ Bachelors Degree   _____Law Degree

4. Occupation:   _____ Student   _____Accounting Educator
                   _____ Accounting Professional   _____Business Professional
                   _____ Other, Please Specify:____________________

5. Are you a CPA?   _____ Yes   _____ No   (If Yes, please answer question 6)

6. Which version of the CPA exam did you pass?
   _____ Computer-based CPA Exam   _____ Paper-and-pencil CPA exam

7. How many years have you worked in the following areas of accounting?
   _____ Public   _____ Education   _____ Other, Please Specify:__________
   _____ Industry   _____ Government

Comments:  __________________________________________________________
            __________________________________________________________
            __________________________________________________________
            __________________________________________________________

Thank you for your participation
Using the Product Life Cycle Model to Analyze Management of a Part Time Undergraduate Student Program at a Small Liberal Arts University

Dennis Debrecht
Carroll University

Michael Levas
Carroll University

Given increased competition for part-time undergraduate students, it’s important organizations utilize accepted models for managing new and ongoing programs. This paper first applies the product/industry life cycle (PLC) model to national enrollment data of part-time undergraduate students from 1970 to 2010. The paper then discusses several recommended marketing management concepts traditionally suggested by the model at various stages of the cycle. Next, the paper addresses the management of a part-time undergraduate program over the same time period, focusing on the management decisions contrary to standard PLC recommendations. The paper concludes by developing models testing the impact of not following standard marketing management concepts.

INTRODUCTION

The subject for this analysis is a small Midwestern University with current enrollment of approximately 3,200 full time undergraduate students. The school also has a nontraditional program that caters to working adults, mostly in the business administration program. In spite of national data that indicates growth of the nontraditional market, and although the school has experienced strong growth in full time undergraduate markets, this one-time "cash cow" is experiencing decreasing enrollments. Explanations for the decrease in the part time enrollment for the institution, including questionable management decisions, are postulated based on an analysis of the impact of organizational decisions and their timing given the stage of the product life cycle. Future data, to be collected and entered into the model include internal nontraditional enrollment data, absence or presence of a program manager, level of administrative assistance for nontraditional students, percentage of courses for nontraditional students taught by full time faculty, number of regional competitors, and regional nontraditional enrollment data.

Conceptual Background

Product life cycle analysis is a useful management tool that has been used as "a basis for recommendations about the content of marketing programs at different stages of the life cycle" (Colli and Cook, 1969). Andersen and Zeithaml state that "Research in marketing as well as strategic management indicates that the product life cycle PLC is likely a fundamental variable affecting business strategy." And Day states that the model "has considerable descriptive value when used as a systematic framework for explaining market dynamics. The authors felt it would be a useful model to explain or describe the
decreasing enrollment in a nontraditional university student program while national statistics showed large increases in the size of the market. Following is a brief discussion of the PLC model followed by its specific application to the part time undergraduate enrollment data, the school's program and institutional decisions. The discussion begins with the second phase of the model, industry growth.

**GRAPH 1**

**THE PRODUCT LIFE CYCLE**

![Graph of the Product Life Cycle](image)

**Industry Growth**

The economic and market conditions that typify the second stage of the PLC are: very fast growth, lack of completion, pricing power and few differentiated products. The data show that overall U.S. enrollment in part time undergraduate programs grew by over 100% between 1970 and 1985. (IPEDS cite). The industry was in the fast growth stage of the product life cycle during this time period. For entrepreneurial organizations this presented a prime opportunity to develop programming for students seeking to attend college part time. Since demand exceeds supply, almost any program will be successful. Many institutions that took advantage of the opportunity did so in the lowest cost fashion possible by simply offering night course versions of their day programs. Since there were no additional expenses beyond hiring adjuncts, the programs usually generated large amounts of cash. The result was that as long as you offered courses at a convenient time, even inferior products/programs were successful. This may work up to a point. However, as noted by Peters and Waterman (1984), there is a danger to successful programs at the stage where demand exceeds supply. The danger is that managers often attribute their success in these markets to their own expertise and decision making skills and not to the fact that the market supply/demand discrepancy is the real driving force behind their success.

While still in the growth phase new challenges emerge when a market moves into an area of competitive turbulence/slowing growth. (Wasson, 1964) This phase is typified as continued but slowing market growth, (See part time industry enrollment data from 1985 through 1999) many competitors moving into the market, product differentiation among competitors and increased price competition. This is crucial as the consumer has choices, making a marketing orientation more important. Providing a basic product no longer ensures success. The older competitors often fail to realize the changes in the market, making decisions on what worked in the past and perhaps using financial or production criteria instead of consumer based criteria.

The implications of these changes are enormous for managers as now supply is catching up to demand with the resulting increase in competition and consumer choices. An organization has to now monitor the environment, especially consumer preferences, and can no longer rely on offering a single version of a product. Although this seems to be a straightforward proposition, management oftentimes seems resistant to make a change. This can be attributed to the need to give up 'power' to consumers (who
ultimately decide what is to be produced in a competitive market place) and the fact that costs will inevitably increase due to the need to monitor the marketplace and create new programming. Another aspect of this stage of the PLC is that supply not only catches up with demand but often exceeds it and competition becomes fierce.

The Maturity Stage

This stage is typified by the slowing growth and ultimately flattening of industry sales. The data from 2000 -2007 show signs of an early maturity stage with the projected data from 2008 through 2018 clearly indicating a relatively flat enrollment level. Market conditions are usually very competitive as the need to grow, by definition, comes at the expense of a competitor. Organizations that survived the turbulent stage are very savvy and pose significant threats. More money is allocated to new product development and market research to stay on top of changes in the market and promotional dollars are used to protect and maintain market share. Smaller players often leave as they cannot compete or are purchased by larger competitors. Smaller players that do not innovate invest in program development or listen to consumers will simply be forced to abandon the market.

The graph below depicts actual data for undergraduate part time enrollment.

APPLICATION OF THE PRODUCT LIFE CYCLE PRINCIPLES TO THE ENROLLMENT HISTORY FOR NONTRADITIONAL UNDERGRADUATE STUDENTS

![Graph showing enrollment data]

Source: U.S. Department of Education, NCES, Digest of Education Statistics

Growth Stage Involvement

During the 1970's and 1980's the university was a pioneer in undergraduate nontraditional programming. Enlightened administrators had recognized the growth of the nontraditional college market and developed evening course offerings that appealed to the part time students. Using the simple tactic of making current courses and programs available at night to working adults, the university was quite successful. To keep the program cheap it was staffed through the use of full time faculty through overloads and not as part of their regular assignment. The course offerings were quite successful with class sizes of 30-40 and free cash flow generated in the $250,000 range. Suggested financial and management strategies would include investment to further growth, increase market share and supply necessary resources to monitor the program. Charging a higher price as there is a shortage of competitors is also a guideline at this point, which the organization did.

In the later growth period of the late 1980's, the industry became more competitive with newer entrants seeking to take part in the growth and profitability of the market. Although the market is growing, there is increased competition. Organizations begin to differentiate their products. National competitors such as the University of Phoenix and Upper Iowa aggressively entered the
market. At this juncture the university noted that newer competitors were using mostly adjunct faculty to staff part time programs. It relied on using full time staff and used the quality of the instruction (full time tenured faculty) as its competitive advantage to differentiate itself. The university had established a niche of having full time professors teach the evening courses in lieu of adjuncts. Despite the increase in competition the program still prospered as part of the market sought out ‘regular professors’. Focus groups conducted by the school confirmed that this was a quality that some students sought. They also indicated that the separation of the nontraditional program and traditional student base was a plus. However, there were signs that indicated students wanted more flexible program offerings: such as weekend programs and shortened semesters (6-8 week courses).

Market Maturity

The nineties offered an even more complex competitive environment, reflecting the later stage of market growth and a maturing market. As the market matured and there was little or no growth in the market to absorb new entrants, competition became fierce with organizations offering multiple programming options for students including weekend programs, lower tuition and in the early nineties promotional items such as free laptops. Survivors of this stage usually are the most adept at offering a changing market what it wants in terms of program attributes. Popular offerings that we see today include even shorter schedules (six weeks) and hybrid courses.

University's Response to the Changing Stages

During the industry growth stage and the University's successful entry into the market, the University initially supported the new programming with assigning a director of part time studies, increased administrative support (advising, longer office hours, etc.). However, beginning in the nineties, just as competition became fierce, the university made management decisions that were counter to conventional marketing management wisdom. The effects on nontraditional enrollment can be seen below. In spite of the mature, but still growing market, enrollment dropped precipitously.

**SCHOOL NONTRADITIONAL UNDERGRADUATE ENROLLMENT**

First, the university eliminated the director position for part time studies, thus removing specific management responsibility for the program. Without a program manager, no new innovations were forthcoming and there was no one to monitor the market and garner resources to make program changes. The following year, administrative support activity disappeared (shorter library hours, no evening hours at the registrar, etc.) Also, while some competitors differentiated themselves with off-site classes, shorter courses, weekend offerings and increasing online offerings, this university failed to respond to any of these. Management also decided to hire more adjuncts and limit the number of overloads of full time
staff, thus eliminating the attribute for which many part time students sought out the program. As nontraditional enrollment decreased, the university began to combine traditional and nontraditional students in classes to get 'economies of scale'. In essence, the school eliminated any reason, with the exception of geographical convenience, to attend the program. Although the overall industry market was increasing, the decrease in nontraditional enrollment at the university can be seen below.

**Model Development**

Several models will be developed which link management decisions to the effects on nontraditional, part time enrollment at the University. We have developed a timeline of management decisions that parallels declining enrollment at the University's part time program while the overall market was growing or at least stable.

One model, which could be called the full model, will use as the dependent variable the University's nontraditional enrollment and the independent variables will be: the absence or presence of a program director; the level of administrative assistance for nontraditional students; percentage of courses for nontraditional students taught by full time faculty; number of regional competitors; and regional nontraditional enrollment data.

Other models will focus on the University's internal decisions, such as the presence or absence of a program director and the level of administrative assistance for nontraditional students and its effects on the University's nontraditional enrollment. Still other models will focus on the impacts external factors have had on the University's nontraditional enrollment.

**Models Tested**

*Model 1*

Dependent variable: School part-time enrollment; Independent variable: Percentage of courses taught by adjuncts

*Model 2*

Dependent variable: School part-time enrollment; Independent variable: Director or no director of part-time program (variable= 1 if director in place, = 0 if not)

*Model 3*

Dependent variable: School part-time enrollment; Independent variable: Presence or absence of administrative assistant (variable= 1 if assistant, = 0 if not)

*Model 4*

Dependent variable: School part-time enrollment; Independent variables: Director or no director of part-time program, presence or absence of administrative assistant, percentage of courses taught by adjuncts
### TABLE 1
#### MODEL 1

**SUMMARY OUTPUT**

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<thead>
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<th>Regression Statistics</th>
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**ANOVA**

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#### MODEL 2

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**ANOVA**

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| AA        | 323.0615 | 49.84344 | 6.481546 | 3.28E-06 | 218.739 | 427.386 | 218.739 | 427.386 |

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**Coefficient Standard Error t Stat P-value 95% Lower 95% Upper 95% Lower 95% Upper 95%**

| Intercept | 830.29 | 117.51 | 6.90 | 0.00 | 562.38 | 1058.21 | 562.38 | 1058.21 |
| PD        | 201.79 | 72.51  | 2.78 | 0.01 | 43.79  | 354.78  | 43.79  | 354.78  |
| AA        | 328.36 | 71.91  | 4.56 | 0.00 | 176.54 | 479.01  | 176.54 | 479.01  |
| AID       | 11.51  | 3.51   | 3.35 | 0.01 | 3.45   | 19.61   | 3.45   | 19.61   |
CONCLUSION

The industry and program enrollment data appear to provide aggregate evidence that the nontraditional undergraduate program at the school was mismanaged. The hypothesized relationships between the variables and enrollment are significant, demonstrating that the PLC model has explanatory power and that management should give serious consideration to the model's general recommendations about the content of its marketing program relative to the stage of the PLC.
Dark Matters: On-line Education and Organizational Dynamics

Constance M. Savage
Ashland University

Sensemaking is part of the organizational dynamics influencing universities’ decisions to offer on-line learning. Sensemaking and tacit assumptions result in retrograde clarification about decisions to offer distance-learning. Factors influencing this sensemaking include market pressure, disregard of strategy, unclear mission, ill-defined vision and a lack of valid data. When faculty members can calibrate the degree of alignment among their institution’s mission, vision and strategy with the decision to offer online academics, they can reshape their roles to have a stronger voice in influencing the sensemaking and organizational dynamics that drive decisions about on-line academics.

INTRODUCTION

According to NASA, dark matter and dark energy comprise approximately 25% and 70% (respectively) of our universe. That which we know as our material world accounts for only 5% of the entire universe. Dark matter is defined in terms of what is not, rather than what it is. From a cosmological perspective, dark matter is known by what is not seen through telescopes. Some astronomers posit that dark matter “may not be made up of the matter we are familiar with at all.” (Bernoskie, 2012). Similarly, within higher education, faculty and administrators alike do not or are unaware of the processes that influence decisions, strategies and program offerings. The confluence of numerous organizational elements creates dynamics that are not always readily observable yet nonetheless shape institutional outcomes. Broadly speaking, the study of the interplay of people, policies and practices with an organization is referred to as organizational behavior. A more specific subset of organizational behavior—organizational dynamics—looks at the linkage between patterns of behavior with an organization as they relate to the organization’s strategy. Organizational dynamics, as defined by Stacey, (2007) encompass

the patterns of movement over time in then interactions between the people who are the organization, the community of practice. Such patterns could be described, for example, as regular patterns of dependence and conformity, or as irregular patterns of aggression and noncompliance. (p. 3)

How do these difficult-to-observe organizational dynamics in higher education impact the fundamental decision to offer on-line academics? Understanding the sensemaking process that is an element of organizational dynamics sheds light on understanding administrators’ decisions to engage in on-line academics. The sensemaking process reveals how aligned (or misaligned) an institution’s mission, vision and strategy are with the push toward on-line academics. Sensemaking about distance-learning also illuminates patterns of conformity and dependence in the relationship between administration and faculty
as a part of organizational dynamics. Once revealed, these organizational dynamics can inform how faculty ought to influence an institution’s sensemaking process regarding the decision to offer on-line academics.

THE HEART OF THE MATTER

The true challenge of on-line academics is not the debate about pedagogy, technology and changing with the times. Rather, the core challenge of on-line academics is hidden in the organizational dynamics of higher education institutions. These dynamics are reflected in the tacit assumptions held by university administrators and faculty alike. Organizational dynamics set into motion strategic or shotgun forays into a range of issues at any given time. Tacit assumptions are part of the sensemaking process—ways to understand or make sense out of things. Karl Weick (1995) explains that an essential element of sensemaking is that human situations are progressively clarified, but this clarification often works in reverse. It is less often the case that an outcome fulfills some prior definition of the situation, and more often the case that an outcome develops that prior definition. (p. 11)

In other words, the solution is identified before the problem or situation is fully analyzed and weighed. This is retrograde clarification. It follows that sensemaking processes clarify (after the fact) where a university stands on the advantages in offering distance-learning. There may be little or no connection between on-line learning and a university’s defined strategy. In terms of distance-learning, the sensemaking mix includes technology, shrinking student populations and marketplace pressures for institutions of higher education to stay in business. When universities ignore or abandon strategy in making critical decisions, it is part of their unique sensemaking process. All too easily, sensemaking’s retrograde clarification can morph into an escalation of commitment to tacit decisions. These unarticulated, tacit decisions are part of organizational dynamics.

The degree to which university administrators use their institutions’ strategies as a compass to direct their decision-making process is a critical measure of consistency and sound business practices. It reflects the movement pattern of interactions (Stacey, 2007) or its organizational dynamics. For example, as administrators feel pressure to increase enrollment rates, they will look for a solution (on-line education) as a means of attracting more students. However, the “solution” is a response to an immediate environmental press and often is not weighed against the institution’s mission—the university’s prior definition of itself; what it is; what it stands for and the direction in which it should go. Some might argue that if enrollment drops too low there will be dire financial consequences, so any efforts to shore up enrollment make sense. But in the larger picture, ought not a university’s mission be taken into consideration in the decision-making process? Similarly, strategic planning should also be weighed. Forecasts of changing demographics with a shrinking pool of potential traditional students and an increase in non-traditional students aged 25 years and older (Noel-Levitz, 2001) has heralded an increase in competition for different potential students. The degree to which 1) administration and faculty agree to the mission and a strategic plan of action for their institutions and 2) work that plan, is reflective of the dark matters related to leadership, business acumen and shared governance in higher education. Sadly, absent a revised mission and strategy for a university, taking action to offer distance-learning may be less of a strategic decision and more of a life-preserver. As stated in by Van Der Werf and Sabatier (2009) in Chronicle Research Services:

The rest of colleges—regional public universities, small liberal arts colleges, and private universities without national followings—can expect to compete for students based on price, convenience, and the perceived strengths of the institutions. They will need to constantly ask themselves “What is college?” and be constantly rethinking the answer if they want students to attend. (p. 6)
The nature of the relationship between faculty and administration is the nexus for understanding organizational dynamics in higher education. When an institution takes action and decides to offer distance-learning, what is actually at play in that decision-making process? The Abilene Paradox (Harvey, 1974) details the dynamics that drive a group’s collective decision to take action that is a clear contradiction to the group members’ actual desires and outcomes. Harvey’s framework for analyzing the dynamics of individuals in groups is centered on their inability to manage agreement. So the Abilene Paradox sheds light on a specific aspect range of organizational dynamics; it speaks to the link between taking action and anxiety. By explaining that “the reasons organization members take actions in contradiction to their understanding of the organization’s problems lies in the intense anxiety that is created as they think about acting in accordance with what they believe needs to be done.” (Harvey, p. 70.) It would seem that administrators’ decisions to offer on-line education fall into the “action anxiety” (p.70) that Harvey describes. Administrators believe that their institutions should commit to distance-learning, yet the sensemaking assumptions shaping these decisions to offering on-line education in the university setting are examples of retrograde clarification in action. Consider the possibility that administrative decisions to enter the distance-learning arena often 1) exclude faculty as key stakeholders; 2) lack sound business practices such as market research, feasibility studies, ROI analyses, competency assessments of requisites skill sets and 3) are only loosely connected to long-term strategic focus. The retrograde clarification of sensemaking becomes a substitute for full-throated dialogue between administration and faculty. It is this substitution of assumptions for action that is actually at the heart of the on-line academics debate and serves as a snapshot of the organizational dynamics at play in universities.

These organizational dynamics reveal a fundamental shift away from the traditionally framed and interdependent roles of administrators-faculty-students to an emerging, yet-to-be-defined role configuration. For example, within academe, faculty traditionally “owns” curricula. Administrators initiate or drive strategic planning processes. Students apply to schools, are accepted and then conform in some manner to the course offerings at a university to complete required courses, maintain acceptable GPAs and graduate with a degree in their chosen fields. Contrast this with sensemaking assertions from university administrators (with a solution in mind) that curricula ownership belongs to the university and not the faculty and students who want distance-learning. Depending on a university’s demographics, along with its capability to accurately survey and interpret students’ preferred learning delivery methods in light of the university’s strategy and mission, distance-learning may be a wise and congruent choice, albeit slightly behind the curve, given technological advances. Thus, the decision to go on-line is made. In reality, the actual decision was made when for-profit on-line colleges and universities read the writing on the wall years ago, creating and implementing business plans to capture “new” students. The role shifts are evident and insidious—weakened faculty voice in academic issues; students as a monolithic block; and administrators focus on the bottom line at the potential expense of academic quality and student satisfaction. But the overarching message is that distance-learning is a good thing for the university. This may be true, but only if the patterns of interaction—in this case developing and creating a shared mission, vision and strategy—radically shift to the future tense. At this point, universities ought to be considering mobile devices to deliver course content and building virtual learning communities.

Clearly, a mix of delivery systems that promote student learning can be appropriate and necessary goals for higher education institutions—depending on key factors. Is distance-learning a fit with the organization’s missions and vision? Is there a learning management system in place with sufficient capacity for projected growth? Is IT staffed to provide technical and instructional design support? Have the requisite skills sets for on-line course design, delivery and assessment been identified? If the heart of the sense-making process is retrograde clarification (making meaning after the fact) then how much consideration will have been given to preparing faculty to be successful on-line educators? Walker and Fraser (2005) aim a spotlight on crucial elements to be weighed in distance-learning:

We must then consider that distance education is more than the simple transfer of an existing instructivist’s verbal lecture to an electronic textual/image/audio environment which is enclosed within the pre-packaged structure of an off-the-shelf Internet-based
course administration application. Computer-mediated distance education classes have a distinctive social structure, unlike those found in a face-to-face class. (p.291)

If the social structure of distance education is distinctive, perhaps the decision-making relationship between faculty and administration regarding on-line learning should mirror this distinction. Most universities’ conventional decision-making methods and processes are inadequate in the face of matters that impact the mission, vision or strategy of an institution. In retrograde clarification that comes with sensemaking, administrators may be blind to the distinct core competencies faculty must demonstrate for successful distance-learning offerings. Too often, the decision to go on-line is based on the exact opposite of what Walker and Fraser posit. On-line learning is, in the eyes of many administrators, just like a face-to-face conventional class without all the act of being there. Yet faculty members who have elected to or have been drafted into offering distance-education know that there are steep learning curves, both in terms of technological aptitude and instructional design. Most faculty members have not been taught to teach face-to-face classes, let alone teaching on-line. Faculty members have been educated to become experts in their chosen disciplines. When it comes to meaningful on-line learning, administrators have to ask serious questions and be prepared to deal with the facts. Have faculty members’ skills sets and knowledge regarding on-line teaching and learning been objectively assessed? Have requisite training and education provided for them in an organized and timely manner? Have faculty actively participated in distance-learning training and education and do they demonstrate competence in terms of knowledge and skills?

CREATING AUTHENTIC VALUE OR FABRICATING IT

In the Pew Research Center’s report on “The Digital Revolution and Higher Education” authors Parker, Lenhart & Moore highlight an interesting basic assumption about the value of on-line learning that speaks to the sensemaking process of higher education administrators:

The public and college presidents differ over the educational value of online courses. Only 29% of the public says online courses offer an equal value compared with courses taken in a classroom. Half (51%) of the college presidents surveyed say online courses provide the same value. (2011).

This gap regarding the perceived value of on-line courses is an example of retrograde clarification of the on-line academics debate. It also provides insight into organizational dynamics. Do administrators in institutions of higher education see the value of engaging faculty and public stakeholders in authentic dialogue about the value of on-line courses? What role should faculty play in decisions that impact the value of educational deliverables? More often than not, the decision to offer on-line academics is made without full faculty input and sets the stage upon which organizational dynamics play out. Some faculty members who question the value of on-line learning can be labeled “techno-peasants” who have not kept up with newer technologies or academic elitists or simply roadblocks to progress. Labeling, whether by administrators or fellow faculty, becomes the first step in the slippery slope of redefining faculty roles: you’re either with the (on-line) program or you’re not. Yet decisions to “go on-line” rarely include in-depth faculty input. Ought not those who develop, design and deliver on-line courses to have a voice in the decision to go on-line? Should faculty expertise and knowledge in academic disciplines take a backseat to administrative sensemaking fuelled by market demands?

WHEN GENERATING REVENUE TRUMPS MISSION AND VISION

The Pew report goes on to identify another basic assumption about on-line learning that is rooted in college presidents’ beliefs about the purpose and goals of higher education. Among those presidents who frame the most important role of a college education as preparing graduates for success at work, 59% report on-line and in-person classes offer the same educational value. This is in contrast to other college presidents who see promoting personal and intellectual development as the role of college education. Of
this latter group, only 43% see equivalent value between on-line and in-person classes (Parker et al., 2011.) These are fundamental and profound philosophical differences. As colleges and universities shift focus from personal and intellectual development to work success, not only do the lines between community colleges and universities begin to blur, but the role of student also begins to insidiously shift from learner to education consumer. In turn, will expectations of education consumers digitize education to such an extent that getting a college degree becomes the equivalent of getting a passport stamp—evidence that that travelers visited a different country but not verification that they absorbed the culture and know the language? In other words, is the mission of higher education institutions being reframed in a deliberate, forward-thinking way or are administrators reacting to the vicissitudes of the changing economic landscape? Bear in mind that in 2001, UCLA stated that its on-line programs lost money and the university found that students were willing to pay more money in tuition to attend traditional lectures as a preferred mode of learning (Capper, 2001.)

All organizations need a vision—that idealized picture of a better, brighter future—to inspire and motivate. However, the inner sensemaking dialogue of university administrators seems caught in a retrograde clarifying sensemaking loop: the technology for on-line education exists; the marketplace competition for students is increasing more competitive; students want convenience—on-line learning is the answer. A shift in an organization’s vision should stem from a purposeful and deliberate process that incorporates the viewpoints of primary stakeholders. It seems that in higher education the push for on-line academics is creating a picture of the future that assumes comparable value between face-to-face and on-line courses. The ideal future seems to have given way to market-driven survival tactics. When it comes to the important work of redefining a university’s vision and strategy in these changing times it is worth remembering this admonishment from Puryear (1999): “Educational goals must drive technology decisions. Technology and economics are means, not ends.” (p. 49)

WHAT ABOUT MISSION, VISION AND STRATEGY?

Clearly the landscape in higher education has changed as for-profit and not-for-profit institutions battle for prospective students and as the face of those future students has and continues to change. Venerable and established higher education institutions have, in many cases, found themselves ill-equipped to capture the new generation of students that have been wooed by more nimble, perhaps even cunning, for-profit colleges and universities. Organizational survival is a strong driver that shapes organizational dynamics, decisions and actions. Yet the move toward on-line academics, whether fueled by the availability of technology, the technological predilections of potential students or marketplace competition, ought to be a strategic focus rooted in the institution’s mission rather than knee-jerk response. Consider this comment by Eric Kelderman in The Chronicle of Higher Education:

In some circles, online education has a bad reputation. Accusations that some for-profit companies prey on unsuspecting students to rake in federal financial aid have led to image problems for the sector. Critics see online education, offered in particular by for-profit colleges, as the dark underbelly of higher education, with the quality of Internet courses second to the greed of unscrupulous investors. (2011)

What organizational dynamics and sensemaking processes are at play in not-for-profit institutions of higher education that make on-line academics—“the dark underbelly of higher education” (Kelderman, 2011)—seem like such a desirable mission or strategic focus? Some would assert that there was little strategic thinking going on; a more likely scenario is that not-for-profit higher education administrators see potential revenues being diverted from their institutions and decided to get into the race. In successful organization, mission, vision and strategy are aligned through an authentic, collaborative process that addresses the interests of both market and non-market stakeholders.
CERTIFICATION AS A PROXY FOR SOUND DECISION-MAKING

Some colleges and universities reinforce their decisions about becoming a distance-learning player by engaging in retrograde clarification activities such as certifying their distance education offerings. Organizations such as Quality Matters, or QM as it is known, exist as a quality assurance regulator that uses “a faculty-centered, peer review process that is designed to certify the quality of online and blended courses.” (Quality Matters, 2011.) Many college and university administrators push to have their on-line education courses vetted through the QM certification process. While QM certification is a plus for an on-line course, it isn’t a substitute for an institution of higher education’s internal organizational process of insuring alignment among mission, vision and strategy. Once the first step on the slippery slope of distance-learning has been initiated, what is the likelihood of turning back?

Colleges and universities, for the most part, are mission-driven organizations. It is their purpose that shapes their identity, what they do and how they do it. And unlike the corporate world, academe has, for better or worse, used the mission statement as the hub around which its organizational culture and reputation revolve. Decisions about distance education should be part of a thoughtful, strategic dialogue that includes key stakeholders—faculty, prospective students, administration, instructional design experts, IT professionals, market research experts—to first develop a position on distance-learning as it relates to the mission of the institution and then, as appropriate, develop a comprehensive strategy and objectives to realize mutually agreed upon distance education goals for the institution. A reactive, closed-door, market-driven foray into distance education can erode a university’s mission and culture faster than you can say “Click on the Content Tab for course information.”

Peeling back the surface layer of decisions to offer distance-learning education uncovers several critical elements of organizational dynamics—leadership, strategy and organizational culture. Schneider (2000) describes four core organizational cultures—control, collaboration, competence, and cultivation (p.27). Schneider posits that alignment among organizational culture, leadership, and strategy makes for a more productive and effective organization. Unless an institution of higher education’s core culture is one of control with its concomitant authoritative leadership, then a strong case can be made for opening up dialogue and shedding light on the organizational dynamics that push faculty and university resources into distance-learning ventures that may be misaligned or that need to be realigned with a university’s strategy, mission and culture.

BRINGING LIGHT TO DARK MATTERS

Even though a college or university may have already made the decision to pursue on-line academics, this does not mean that faculty members do not have a voice in the on-going sensemaking process. Faculty voice, which in some cases has become dormant in the face of the administrative pressures, is a powerful force in shaping organizational dynamics. Faculty members can refocus or change a decision if they add data and expert judgment to the on-going sensemaking processes at their institution. Faculty members can use qualitative and quantitative data about their on-line teaching and learning experiences to re-frame institutional approaches to on-line learning. Gathering student input about the value of on-line learning experiences vs. traditional classes can assist in determining what subject matter and content (or parts thereof) are best suited to on-line learning or face-to-face classes. Identifying student readiness factors that predict success in on-line learning and using them to pre-screen students would not only be the ethically appropriate thing to do, but also could serve as a mechanism to better align institutional mission and vision with distance-learning options. Taking tuition monies from students ill-prepared or ill-suited to distance-learning is higher education’s version of sub-prime mortgages.

Most faculty members know that there are different learning styles (Kolb, 2005). Leveraging that expert knowledge in full-throated dialogue with faculty colleagues and then with administration would not only lead the way to the appropriate use of on-line academics, but also could reinvigorate current pedagogical approaches in conventional classroom settings. This robust dialogue would significantly change organizational dynamics and place the role of faculty front and center in on-line academics. Non-
conformity that is borne out of a commitment to a meaningful institutional mission, vision and strategy—
not merely differing ideologies and role relationships—may be the most critical shift in the time-honored
patterns of faculty-administration relationships. To achieve this, faculty members must be willing to shift
the existing paradigm about the way things typically get accomplished at a university and assume the
responsibility for shaping the nature and quality of learning experiences. In other words, faculty members
have an obligation to actively shape the organizational dynamics that inform decisions about academic
programs and delivery. It has been far too easy for faculty to stay immersed in their areas of
specialization, either to pursue that which they love or to avoid organizational politics. Regardless of
the reason, faculty members must actively reclaim and redefine their role in shaping organizational dynamics.
Without the voice of faculty members influencing and driving organizational decisions and
implementation of distance-learning, on-line academics may simply come to be viewed as the 21st
century’s version of correspondence courses.

Where to begin? Assume that the die has been cast and that distance-learning is a “go.” Further
assume that the university as we know it will be different as it responds to the societal shift to
consumerism and the vicissitudes of the economy. Re-establish quality education. Leverage the best of
experts’ sensemaking processes. Faculty can research and develop ways for prospective learners to
determine the “best-fit” learning delivery method for their future educational success. Shift the focus
away from the lightning-quick technological advances and design learning contracts (Knowles, 1986).
Become expert at promoting learning. If the organizational dynamics do not or will not support these
efforts, change them. Develop informal support groups with colleagues to pilot changes in how dista nce-
learning is approached, planned, delivered and evaluated. Replace isolating autonomy with meaningful
collaborative effort. The dark matter of organizational dynamics is shaped both by what is actively
created as well as that which arises from self-interest or neglect. Faculty must actively engage and
commit to changing the interplay of people, policies and practices in their institutions if light is to be shed
on the dark matter of organizational dynamics and on-line academics.

REFERENCES

http://www.nasa.gov/audience/forstudents/9-12/features/what-is-dark-matter.html


Education, November 6, 2011.


areas/what-is-dark-energy/

dramatic-growth-college-students-25-older/


An Educator as a Contemplative Practitioner in Business Education

Maria Lai-Ling Lam
Malone University

This article is to share my contemplative practices in business education and develop a body of knowledge and a skill-set to be used to educate graduate and undergraduate business students to become responsible decision makers. Contemplative practices lead students to know how to integrate their lives and actualize the ideals of business. The practices demand participants to be aware of the process of teaching and learning in the formation of conscience. The contemplative practices will become productive when they are accepted as important norms and values in business education.

INTRODUCTION

In my twenty years of teaching business subjects in Hong Kong and the U.S., I expect my students to value human dignity and seek higher common good in their professions. The expectation is reasoned on the idea of human beings as meaning-seeking and the parts of the unknown bigger picture in their lives (Frankl, 1984; Mitroff and Denton, 1999; Wolterstorff, 2002). Students’ sense of large purpose and meaning of life in their learning-oriented community are advocated to be the key factors relating to their perseverance and resilience of life in the face of difficulties (Sullivan, 2012: 148). Business students not only learn “how” but also learn “why” before they judge what actions need to be taken in a particular business context. In the midst of so many crises and business scandals in the current global world business, we may ponder at least five major questions: What are the key values of business? What is wrong with our current business education? Why are these business professionals lost? Can business educators teach students to develop habits of examining their consciences? Can business educators get some insights from some traditional practices? All these questions lead me to be more aware of my pedagogy and the values I pass along to my students. I want to deepen my inner being along with the students’ inner being through spending more time with student exercising contemplation pedagogy which is defined for my purposes as seeing thoughtfully and steadily over a period of time in order to understand its power. In this paper, I would like to share my contemplative practices in business education and develop a body of knowledge and a skill-set to be used to educate students to become responsible decision makers and consumers in the global market economy. The paper is organized in four sections. The first is about the values of business and problems of current business education. The second is about the effectiveness of contemplative practices. The third is about my personal contemplative pedagogy and classroom practices. The fourth is about the challenges of implementing contemplative practices in business education.
VALUES OF BUSINESS AND CURRENT BUSINESS EDUCATION

Business is meant to accomplish things collectively. “In the project of self-government, business is without a doubt the single largest institution of civil society. The moral health of society, therefore, depends to a great extent on the moral character of business leaders” (Novak, 1996:53). Business is to serve and honor the sacredness and interconnectedness of human life before wealth is created. When these business leaders use their endowed gifts to increase prosperity to their stakeholders, including their employees, customers, community, and even future generations, the human conditions of human life are improved. The basic principles for business are to respect human dignity and seek common good. Business leaders need to be mindful of the needs of the world, their employees, community, and resources when they create, organize, and distribute wealth (Pontifical Council for Justice and Peace, 2012). They must plan time for contemplation to “answer the quality of life questions implicit and explicit in our corporate decision making” (Haessly, 1995: 246). They also need the skills of reflection that once was used to be provided by liberal arts education (Schon, 1987). They reflect deep values and develop the capacity to actualize the potentialities of business through their examined lives (Stimpson, 2012:67).

Unfortunately, most current business education is not sufficiently developed for students to internalize the basic values of business and perform at least equal and hopefully above their callings in a business career when business instruction is “isolated” from other liberal arts offerings (Colby et al., 2011). MBA education is becoming a huge money-driven machine in the U.S. Students are trained to pursue narrow objectives without seeking deep meanings and values of being human. Many business educators have already realized the knowledge presented in the business school sometimes demoralizes students’ character development as this knowledge is being objectified, trivialized, instrumentalized, rationalized and technologically oriented (Catterall, Maclaran, Stevens, 2002; Donaldson, 2002; Ehrensal, 1991, Lam, 2005; Mintzberg & Gosling, 2002; Palmer, 1983, Pfeffer & Fong, 2002, Smith and Robins, 1991). It is an erroneous assumption that, when students have more objective knowledge, they are becoming better professionals when educators are not mindful of the knowledge that has already been stripped away from students’ subjective beings and some universal values of being human (Ghosal, 2005; Goodpaster, 2007; Jensen, 2012; Maclntyre, 1984). Business educators are called to help students to discern their values through narratives of their experiences (Haughey, 2009) and facilitate students to be aware of their becoming “professionals” in their learning (Vail, 1989, 1996, 2007). The tragedy in our current business education is when they divide their lives and accept the common norms of doing business without spending more time to contemplate their own conscience and when they become more self-serving. Students are not challenged to have in-depth understanding about their values and meanings in their lives. Sadly, they are trained to rationalize their own immediate short-term interests without being mindful of their accountability and their callings.

I often have to lament my frustration and loss when my undergraduate and graduate students are accustomed to compartmentalizing their lives and actions. They do not perceive any violation of other peoples’ rights as long as they can pay “fair wages” to these people in the sweatshop and follow the laws. They are deaf to the voices of the wounded or do not see the consequences of their actions. Many students are not aware that their attitude toward marketing activities has been socialized by the existing marketing practices. Many want to master the marketing techniques or skills quickly and even conform to the culture codes created by marketing activities. Business as business! They believe that they have made moral choices but are often unwilling to examine in depth the values behind their choices. They are skeptical about being ethical in the business world and even perceive that they will be less successful if they are ethical in their professional life. Unfortunately, students can easily rationalize their egotistic values when there is strong advocacy of enlightened selfishness as the essence of marketing management and an active glorification of greediness as a foundation of capitalism in teaching marketing ethics (Cooke, 2005).
CONTEMPLATIVE PRACTICES

“Contemplation is an essential means for accessing moral values and, ultimately, making a reasoned, ethical decision” (Guina, et al. 2012:15). Contemplation pedagogy is the cultivation of inner awareness through first-person investigation and has proved to be effective in higher education and leadership development (Gunnlaugson and Moore, 2009). Contemplative practices are activities which quiet the mind and nourish the capacity for deepened awareness, concentration, and insights. “Contemplation includes meditation as well as spontaneous and unstructured moments where we experience a connection with the ground being” (Miller, 1994:57). Contemplation is a way for human beings to connect with their ground of being (i.e., Our Creator). It is a “careful attention and quiet wonder” (Buchman 1989:39). Thomas Merton, a well-known 20th century priest, described it well:

Contemplation is the highest expression of man’s intellectual and spiritual life. It is that life itself, fully awake, fully active, fully aware that is alive. It is spiritual wonder. It is spontaneous awe at the sacredness of life, of being. It is gratitude for life, for awareness and of being. It is a vivid realization of the fact that life and being in us proceed from an invisible transcendent and infinitely abundant. (Merton, 1972:1)

Thus, contemplation practices enable people to be connected with the invisible transcendent and give participants the courage to affirm themselves in spite of the existence of anxieties in our lives (Tillich, 1952:162). Contemplation practices are related to mindfulness and meditation (Suzuki, 1956). Mindfulness invites the individual to bring awareness into the present moment and encourages the mind to focus on it but not dwell on it. Each individual can be open to moment-to-moment experiences without being judgmental and anxious about the future. Mindfulness increases our abilities to discern and be aware of unrecognized experiences and consequences (Hahn, 1976). We can be mindful of our intentions and extend kindnesses to ourselves and others (Kabat-Zinn, 1990). Meditation practices enable us to calm and center our mind.

Indeed, contemplative practices can be practiced by any human being without following any religious doctrines. “Inviting contemplative study simply includes the natural human capacity of knowing through silence, pondering deeply, beholding, witnessing the contents of consciousness and so forth” (Hart, 2004). The operation of consciousness exists in our human being. To be mindful of the operation of our consciousness has been practiced in our civilization for thousands of years. The idea of contemplative practices has been discussed by many renowned thinkers and is universally accepted as a part of personal development in our civilization.

Contemplative practices are found to be effective in the utilization of technology, transformative leadership, collaborative team-building, and authentic communications (Benefiel, 2005; Eshelman et al., 2012; Senge and Wheatley, 2009). Some educators have introduced intuition awareness through classroom-based mindfulness and meditation practices to help students deal with workplace tasks (Sadler, Smith, and Shefy, 2007) and increase their passion for sustainability (Shrivastava, 2010). Gunnlaugson introduced sitting meditation and helped students to “cultivate the capacity for deepened attention and mindfulness in their conversations” in her online text-based dialogue course (Gunnlaugson and Moore, 2009:174). “The cultivation of mindfulness among college students is one progressive example of advances in higher education to cultivate student well-being and effect change at the individual level and community level” (Bergen-Cico and Bylander, 2012:98). The cultivation of the skills of mindfulness has found to increase self-awareness, self-compassion, and improve students’ well-being (Gard et al., 2012; Neff & McGeehe, 2010).

Contemplatives practices are good to develop students’ moral capacities and creativity when they can access their moral values and make sound moral reasoning and decisions. They can cultivate attention, emotional balance, insights and creativity. They can develop their patience, empathy, non-judgmental awareness, emotional balance, capacity to listen deeply and see things clearly. Students become familiar with the practice of contemplation skill; they develop skills of reflecting their values when they describe their experiences and realize the importance of knowing the process of the events. They may experience
the joy of spontaneous wonder and learning when they can develop deeper meanings behind the events that are sometimes hopeless in a highly competitive business environment. They may learn how to narrate the on-going process in business activities and integrate them into their lives even though many events seem to be fragmented and meaningless to observers.

MY PERSONAL CONTEMPLATIVE PEDAGOGY AND CLASSROOM PRACTICES

Business Education is a calling to me. Business creates wealth and actualizes the moral dignity of human beings. My contemplative pedagogy is to facilitate students to cultivate inner awareness through first-person investigations. It passes along the moral aspects of business. These contemplative practices are based on the use of a Natural Law approach, the Ethics of Virtue approach, and Palmer’s teaching (Aquinas, 1953; Budziszewski, 2003; Kreeft, 1994; Lewis, 1947; Palmer 1983, 1998, 2004). Natural Law approach is to be aware that the laws written on our hearts cannot be denied and to know our self-destructive behavior when we suppress our conscience. The ethics of virtue approach is to develop habits to achieve the fundamental goods that natural laws require a person to pursue. The basic idea of Natural Law has been universally accepted to guide our behavior in human civilization and is regarded as the foundation ethics for business leaders (Engelland and Eshell, 2007). Through this contemplative pedagogy, I need to cultivate a community of learners and guide students not to justify their immoral reasoning by relativistic values and organizational goals.

As I teach in a Christian school, I adopt Christian ways of contemplation. There are moments of silence, prayers, scripture reading and reflective writings in my classes. I explain to students about the objectives behind different activities and encourage them to narrate the process of learning through using intensive writing as a medium to construct their thoughts and feelings. Hopefully, they develop the habits of hearts for human dignity and common good. In the group discussion assignment, I ask students to listen deeply and write down their discernments. From my experience of teaching, students tend to cut the learning short and quickly give an answer to the professor. It is better to assign a person as a facilitator (i.e., keep the discussion on the right track), note-taker, summarizer, and divergent thinker (i.e., ask questions such as these: Are there other ways to solve these problems? Do we miss some things?). Through students’ group work, they learn multiple perspectives and meanings behind some common phenomenon. When I weave the perspectives and meanings together, some students can see the evolving process and understand their activities are connected to the whole. Before students are asked to submit their reflective assignments, they must go through an intensive experiential learning experience. Their experience will be through literature review, service-learning projects, and role playing in group discussions. I also need to model being-presence in the classroom and avoid multi-tasking. I learn to affirm students’ beings and practice the virtue of hospitality in the classroom. There are examples of current classroom practices in my basic marketing course.

Undergraduate students have to learn the process and flow of business before they learn marketing. They discover the process of the development of good corporations and good business practices through reading, field work, discussion, and presentations. Students are asked to compare the definitions of business before and after their numerous experiential exercises. They are asked to summarize the idea presented by these articles: “Vision 2050” (World Business Council for Sustainable Development, 2011); “Can there be good corporations?” (Kelly, 2012); “Marketing to the bottom of pyramid” (Johar, G, 2010); “Story of Stuff” (Leonard, 2007). They are also asked to report the observations of green marketing practices of a particular product category in a retail store. The practices facilitate students to know why their business professionals are essential for the future of humanity and choose better ways of creating, organizing, and distributing wealth. Their evolving understanding of business in a broader context guides them not to rush for short-term interest at the expense of the work of common good in business. They are also asked to interview for at least half an hour a successful business person and learn how a chosen mentor experiences happiness through an integrated life. Before they submit their final papers, they discuss their drafts with their peers and have opportunities to articulate their own insights to their peers. Students learn why these mentors like to help young people to be successful and have hope and faith in
them. These multigenerational interactions show them the meaning of sustainability in their lives. Furthermore, they research whether one company’s marketing programs effectively create, communicate, and deliver values to customers and other stakeholders and present their analysis to the executive in this company. The face-to-face interactions between students and executives intensify their learning experience and facilitate them to internalize key values in business. When students gradually realize the initiatives of some business leaders who have benefited the students’ lives, they learn to discern what goods and services should be created for our humanity. Their inner enrichment corresponds to the words of poet James Russell Lowell, “Thought that great hearts once broke for, we Breathe cheaply with common air.” They learn how to be grateful for the good words of these leaders and are inspired to do well by doing good in their business professionals.

CHALLENGES OF IMPLEMENTING CONTEMPLATIVE PRACTICES IN BUSINESS EDUCATION

Contemplative practices require business educators to plan time to reflect their teaching materials, their experiences, their students, and the connection with other disciplines and the invisible higher being. Being a finite creature, I have to affirm the meanings of life behind numbers or mechanical boxes presented in the business education in spite of my anxieties created from taking students’ time away from tools presented in the textbook and self-doubt about the known in the future unknown business world. When I teach students to think of the meanings of relationships before I teach them the strategic tools used for effectively allocate resources, I have to draw students to experience life’s complexities through their personal choices. I can see the subject I taught is related to many subjects when my concern is about students’ wholistic development. It needs collaboration from other educators and personal humility. Sometimes, my self-bias and confirmation bias in my business discipline need to be exposed for the sake of knowing the connections between my discipline and the whole when I guide my students to contemplate the connections between their known and unknown. I and my students need to stop, look, and be open to our struggles and experiences in learning. I also need to change my assessment in the students’ learning outcomes. Students not only demonstrate their choices of right tools in the right context but also articulate the values behind their choices. Students also need time to contemplate their learning and growth in a supportive learning environment. It is a challenge for business educators in many colleges to model contemplative practices when the financial numbers are becoming more important than the sacredness and interconnectedness of lives. To stop, look, and experience our beings can be easily regarded as unproductive and a waste of time in our busy action-oriented business professional lives.

With the rising tuition in higher education and the availability of technology to access education at a lower cost, I predict more and more students will take the standardized tests of business subjects and educate themselves through less expensive or free on-line materials. The formation process of moral character in higher education is not valued in the choices of students and even business educators. The use of technology in the business education is an elected tool to provide convenience. Will the easy way to access information be leading to the ignoring of virtues? The choices behind technology have already framed the reality of business education and lessened the importance of contemplative pedagogy.

Young people are educated in a fast-paced development model! It seems that we forget the element of time in students’ growth path. Students are addicted to rushing and not listening to their inner voices (Jones, 2003). They have no time to contemplate nature, beauty, themselves, relationships with human beings or higher spiritual being. They are accustomed to multi-tasking and do not realize they become less able to “experience the subtlest, most distinctly human forms of empathy, compassion, and emotion” Carr (2008). They are hurried college students who become harassed managers! They even do not realize that they need slow-down meditation in offices or in the high-stressed business operating environment. They cannot see the moral values behind the business activities. Sometimes, they can easily follow the accepted social norm by seeking bottom line at the expense of employees, environment, and even the work of common good. Their mindsets are fixed on narrow, rationalized and detached numerical numbers in their decisions. They cannot contemplate their compulsive behavior when they are so obsessed with
narrowly defined pragmatic objectives. They cannot afford to take time to be away from their rigid mindset. They regard contemplation as non-productive and prevent investigation of their own values in their decisions. Goodpaster (2007) described these mindsets as teleopathy and are the main cause of unethical behavior in current organizations. There is no room for contemplation in teleopathy mindset. Paradoxically, a person is more productive when he or she takes time to stop, look, and think about the harmful effect of rigid goals upon his or her productivity. The art of contemplation needs to be practiced with self-awareness and humility.

Contemplative practices will become productive when they are accepted as important norms and values in business education. Students “are affected by many of life’s experiences; no intervention, particularly over the course of a semester, can be expected to have a dramatic impact on student outcomes” (Eyler and Giles, 1999: xvii). The culture of developing students’ habits of contemplation need to be supported by the design of courses, architecture for quiet space, advice to students, coordination between liberal arts and business education, and support from the institution and community. The intensive and extensive deep honest dialogues for students’ being and becoming in business education among different stakeholders demand much time and commitment from business educators!

CONCLUSION

I would like to invite you to consider how contemplative practices can be used to facilitate your students to be morally responsible leaders in your discipline. Whatever your discipline, are you responsible for teaching the abstract qualities of being leaders in your calling? The contemplative practices lead me to discern how to give more time and room for students’ being and becoming in their business education. I value my students as learners and model students the contemplative practices in their learning. I will keep telling my students about the ministry with deep values behind business professionals and invite them to contemplate their existence through their creativity in the business profession. Hopefully, students will continue their habits of contemplation when they navigate in many complex and ambiguous organizational environment and develop deeper meanings of their choices and decision-making processes. Contemplative practices will not be panacea for all business problems. However, contemplative practices will guide business professionals to honor the sacredness and interconnectedness of human life. When business instructors and students are committed to put aside some time to aware of the operation of our consciousness of our teaching and learning, we can be mindful the norms and values behind our judgment and daily actions, and have more faith in seeking the common good in business activities rather than the bottom line. Hopefully, students experience happiness through their integrated life when they contemplate their choices in their personal and professional lives. The poem by Robert Frost illustrates my commitment in the contemplative practices: “Two roads diverged in a wood, and I, I took the one less travelled by, And that has made all the difference.”

REFERENCES


Contemplation in higher education. http://www.acmhe.org


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Incorporating Global Competency in Marketing Classes: 
An Experiential Approach

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Marketers face new challenges in expanding sales with corresponding changes and competition worldwide. Many marketing classes cover international marketing. Experiential learning, such as study abroad, plays a major role in developing global competencies in. This paper highlights a study abroad experience that injects global competencies in marketing students.

INTRODUCTION

As traditional markets become saturated, marketers are challenged to identify and develop new markets and segments worldwide. Much of the competition for new markets is international and global. Increasingly, marketers are forced by circumstances to interact and partner with people from different cultures and therefore different beliefs and expectations that differ from what marketers were used to in the past. It is the responsibility of marketing educators to provide the tools for the preparation of students to succeed in this changed environment. Such tools include experiential learning in marketing classes.

International business deals are often huge. For example in the very recent past, Boeing, the US aerospace giant, lost a huge sales deal for 180 passenger jets from Indigo, an Indian airline, to Airbus, the European airline consortium. Did culture and expectations or changing market conditions determine the outcome of this deal? A deal this big that runs into billions of US dollars can make a significant difference in the economy of a country and its employment situation. Such international deals are just too big to let go. It is quite possible that better understanding of the business culture, better networks with opinion leaders and decision makers in target markets, and better understanding of their needs would result in more successful marketing efforts and their impact on the business success of the organization.

Corporate ownership and governance, even in United States, is rapidly evolving into a union of diverse culturally influenced business and marketing philosophies and expectations. Many major mergers and acquisitions between international corporate giants from culturally dissimilar countries such as that of Acer a Taiwanese company and Gateway an American Company (PC World, 2007) and Tata Motors of India buying the English brands Jaguar and Land Rover from Ford Motor company of the US (New York Times, 2008) have taken place in the past five years and many more are underway. Larsen and Toubro Limited, India’s largest engineering and construction company has entered into a Joint Venture with the US based Gulf Interstate Engineering Corporation. Gulf Engineering already has sound operations in Mexico, South America, Russia and the Middle East (Times of India, 2007). Very recently, Chinese organizations have made acquisitions in United States and others are being actively invited to invest by many US states.
A look at these giant business moves taking place all over the globe throws light on the fact that trade liberalizations are creating a lot of new opportunities in many new lands. As a result competition is also increasing rapidly. Businesses are seeking job candidates with adequate international knowledge and experience in order to succeed in the global village. Such knowledge can be significantly acquired and increased through direct exposure to, communications with, and other forms of direct interaction with individuals from other cultures and countries, especially the ones that are most promising at this time or in the very near future for business development.

USA is no longer people’s only favorite place to set up businesses or seek jobs although recent polls have once again ranked it the number one destination for foreign investments. At the same time, several third world countries such as India and China are becoming more and more attractive to investors, businessmen and job seekers alike, due their cost effectiveness. The 2008 release of the Forbes’ World’s Billionaires had four Indians make it to the top ten and a Mexican tycoon Carlos Slim at the third position. Others in the top-ten list are from Sweden, Germany and Russia (Times of India, 2008). Another report that year indicated that about 63 percent of the companies globally were targeting Vietnam to capture the low labor costs benefit (Times of India, 2008). In such a scenario where the global economies are opening up and making every effort to reap benefits by collaborating with other countries, it is very crucial for students to acquire global competencies in order to compete in the world beyond US. However, most marketing classes offered today can only provide book knowledge with very little real understanding of the true situation and environment of the global nature of marketing.

This paper will provide an insight into how global competencies can be introduced into marketing classes by way of an experientially enriching study abroad program. The program provides both cultural and business immersion opportunity for participants and is especially valuable to marketing students and practitioners. They gain first-hand knowledge of business customs, expectations, requirements, networks, and opportunities from the program in a very time-efficient and effective manner.

THE CHALLENGE

Students usually lack real world experiences. Since globalization has become an existing phenomenon, organizations have realized that the foundation of competitive success is the existence of globally competitive executives. Therefore organizations need to find suitable candidates with the appropriate set of competencies to perform effectively in this environment (Wu and Lee, 2007). Working with international corporations or multinational companies and working in an international environment among a diverse workforce may be some of the major challenges that the American students are vulnerable to due to globalization.

Most American students’ knowledge is limited to the national boundaries and they are completely unaware about what is happening in the world outside of US. In order to be competitive with students from all over the world the American students will have to understand that there is a world beyond the US which is progressing rapidly and for them to be able to enter this global market, they will have to gain as much international exposure to gain critical global business competencies as soon as possible. This will enable them to better understand the opportunities and challenges beyond national borders, identify transnational segments, position effectively and communicate successfully. The final result will be additional sales and profits through winning target-focused marketing strategies.

GLOBAL BUSINESS COMPETENCIES

A graphical model has been developed to guide the reader through a conceptual framework to provide an insight into the theoretical context of our endeavor. Offering global business competencies building opportunities to students of marketing is part of the bigger picture of teaching marketing.
In order to prepare for acculturation with foreign partners, prospective international managers should have developed a set of traits or competencies. While it is practically impossible for anybody to acquire all the necessary competencies at once, it is still possible or rather sensible to acquire these competencies in stages (Wu, Lee and Tzeng, 2005). Caligiuri and Santo (2001) have presented a list of goals that can be fulfilled in order to achieve these competencies in stages. These goals are categorized into ability, knowledge, and personality development. Ability deals with transactions and leadership. Knowledge deals with business structure, international business issues, and networking. Personality deals with openness, flexibility, and ethnocentrism. Ghose (1997), had provided a list of competencies that further explain each of these stages. Combining the Ghose (1997) list of global competencies and Caligiuri and Santos’s (2001) list of goals, a useful guide is developed for better understanding of the global competencies required to develop successful managers.

In a global scenario where businesses are spread in different geographical locations, the customers of the business may be very varied and their needs may be diverse. Therefore it is important to understand the needs, preferences and tastes of different customers in order to serve them right and give them what they need. It is important to keep your ears open to sense any opportunities and threats to the business from competitors.

For a better understanding of competitive opportunities and threats, country specific knowledge, is essential. This includes the cultural, legal, social, and communications aspects of culture among others.

Cultural: It is important to gain knowledge about different cultures because people from culturally dissimilar countries have different needs, tastes and preferences. In order to do business globally it is
important to understand the local culture in which the business is set in order to cater to the needs of the people of that country. It is also important to understand different cultures because often the business strategies and techniques that work in one country may not work in another. Therefore in order to step foot in another country it is important to closely study that country’s culture and devise strategies accordingly.

Legal: In order to do business globally it is very important to understand that different countries have different laws. Depending on whether the country is a democratic country or a communist country, the laws will differ from country to country. It is important to have very good knowledge of the different laws of the country one may be dealing with.

Social: It a known phenomenon that businesses and societies co-exist. They have symbiotic relationship. Therefore it is necessary to fulfill the social responsibilities that a business has towards the society.

Communication: Good communication is the most essential part of any business. No business can exist without communication. It is important to be able be to market ones products and services in the right way at the right time. It is important to be able to understand the needs of the consumers or the end-users. Communication is the link that brings the business and its customers together in the market place.

ACQUIRING GLOBAL BUSINESS COMPETENCIES

The two most important sources of acquiring the earlier mentioned global business competencies are:

-- In-school teaching and learning; and,
-- Out-of-school teaching and learning.

In-school teaching and learning techniques include class-room discussions, quizzes, debates, case studies, group projects, class-room presentations, field trips, guest speaker, etc. Such techniques may help in developing the students’ communication skills, confidence and knowledge.

However, when these class-room activities are coupled with out-of-school learning experiences, it helps the students gauge the extent of practical applicability of theoretical knowledge gained in class besides helping the students measure the acceptability of their ideas in the real world. Some such out-of-school learning experiences involve academic internship, paid internship, undergraduate and graduate research, business seminars, workshops, study abroad, etc. These out-of-school learning activities help a student simulate the challenges they may be faced with when they step in the real world. One of these out-of-school learning experiences, study abroad, is discussed further.

STUDY ABROAD

Experiential research techniques that are more common include surveys, interviews, net searches and projective methods. Meaningful immersion through study abroad as an experiential research technique is relatively newer and hence a greater focus is being placed on this technique in this paper.

Discipline focused study abroad programs, especially, provide the sustainable competitive advantages (Vance, 2005) of firsthand insider knowledge and invaluable observations of backstage culture. In addition they provide direct networking with essential contacts for current and future business endeavors. However, for these programs to be meaningful, we need to be aware that the basic types and stages of experiential learning are addressed by the variety of activities inbuilt into such study abroad programs.

Many leading universities have recently incorporated such meaningful immersion study abroad into their business curriculum and other schools are incorporating them in order to make their graduates competitive (Backman, 2007). In January 2008, NAFSA reported that Study Abroad Programs are critical to leading, collaborating, and competing “effectively in the global arena.” (NAFSA, 2008)
SPECIFIC BENEFITS OF THE STUDY ABROAD PROGRAM TO STUDENTS

The advantages of study abroad can be categorized into two sets of competencies. The first set is cultural competency and the other set is business competency. Koernig (2007) emphasized that in order to make a study abroad program effective, focus has to be placed on, “… balancing academic content with cultural activities, selecting types of learning activities, and facilitating a student exchange with a local university.” The two categories addressed are highlighted below.

a. Cultural Competency
   -- Understanding the role of culture and its impact on business processes.
b. Business Competency
   -- Real time learning from highly successful and influential business leaders of global trade across different industries like IT, Hospitality, Emerging Technologies, Manufacturing and Service Industries.
   -- Provides real time exposure to the challenges and opportunities of transnational businesses.
   -- Observing and studying major global and local businesses in operation.
   -- Establishing personal contacts in the corporate world.

A sample meaningful study abroad program is presented for the benefit of those desirous of starting one or improving an existing program.

A SAMPLE STUDY ABROAD PROGRAM

The India Study Program

Participants are accompanied by a faculty member on a visit to Chennai and surrounding cities in Southern India. Chennai is a booming center for international business. The focus of the immersion experience is business studies. The tour lasts two weeks and the group visits South Indian cities in order to get insights into business in both large and small cities. The group visits large and small businesses, multinational and businesses, gets into conference with high level executives and administrators from private industry and government. The group also gets guided tours of factories, hospitals, educational institutions, and cultural sites by renowned experts and attends exclusive seminars at these locations. Focus is on both cultural competency and business competency.

OVERALL DEBRIEFING

No program or tool is useful for replication unless it is assessed. Debriefing provides the opportunity to assess the study abroad program. Sims (2002) had emphasized the crucial contribution of debriefing to experiential learning. Participants were debriefed using journalizing, discussions, clarifications, reflections, and analysis. Assessment during debriefing showed almost a 19% increase in students’ self-evaluation between pre and post program.

CONCLUSION

Globalization is here and a fact of business. However, the supply of globally competent personnel is in critical short supply. Business schools have to take the responsibility for supplying organizations with globally competent graduates. There are many understandable challenges though, such as the availability of resources, the lack of faculty preparation to lead these efforts, and the superficiality of knowledge of some existing leaders (Koernig, 2007). In addition, many existing so-called study abroad trips are essentially, “Margarita Trips,” which are programs that are vacations with little or no contribution to cultural and business competencies. It is therefore necessary that US students in marketing are taught business competencies in order to compete and collaborate with global competitors and build strategic networks and alliances. To be of benefit to aspiring competitors in the arena of global business, serious
attention should be focused on meaningful study abroad programs in addition to traditional experiential research techniques to address both cultural and business competencies in the marketing program in universities and colleges.

REFERENCES


NAFSA: Association of International Educators (2008). *Strengthening Study Abroad: Recommendations for Effective Institutional Management for Presidents, Senior Administrators, and Study Abroad Professionals*, 1-14


White, Carmen M. and Adinkrah, M. (2007). “Mythical Realities”: College Students’ Construction s of the South Pacific. Retrieved from [http://findarticles.com/p/articles/mi_m0FCR/is_1_41/ai_n18791245](http://findarticles.com/p/articles/mi_m0FCR/is_1_41/ai_n18791245).

This study addresses cultural approaches to divergent creativity. Students from the United States, Ireland, Sweden, France, Nigeria, Croatia, Kenya, Kyrgyzstan, Honduras, and China were given a divergent thinking creativity exercise and a creativity survey. Results were compared as to number of ideas generated (fluency), range of ideas given (flexibility), use of creative approaches, comfort level with the divergent thinking exercise and self-perception of creativity. Results were compared using the individualistic/collectivistic orientation. Significant differences were found between individualistic and collectivistic cultures in regard to fluency, flexibility, and comfort level, but not in perceived creativity. Implications for the classroom are discussed.

INTRODUCTION

Creativity in business and entrepreneurship has received increasing attention. Timmons (1994) argues that creativity is central to entrepreneurship education. A 2010 American Management Association study identifies creativity and innovation as one of the four critical skills needed for business success today and in the future. A study of CEOs lists creativity as the number one leadership competency of the future (Bronson & Merryman, 2010). The importance of creativity is also recognized internationally. The European Union designated 2009 as the European year of Creativity and Innovation and held conferences and supported creativity programs. Enhancing creativity and innovation is listed as one of the five skills in which more training is needed by entrepreneurs in Malaysia (Josoh, Ziyae, Asimiran, Kadir, 2011). China has also shown an increased interest in developing creativity (Phan, Jing, Abrahamson, 2008). While countries appear to agree on the importance of creativity, do they also agree on how to approach creativity?

There are two types of creativity, divergent and convergent. Divergent creativity is the generation of ideas and involves both the number of ideas one can generate (fluency) and the variety of ideas one generates (flexibility/range). Congruent creativity generally follows divergent creativity and focuses on combining these ideas into the best result. Much of the focus in United States entrepreneurship classrooms has been on convergent thinking (the final project) (Schmidt, Soper, Bernaciak, 2012).
However, Penaluna, Coates, and Penaluna (2010) contend that creativity, innovation and opportunity recognition, essential skills in entrepreneurship, are reliant on divergent creativity. As divergent thinking/creativity usually occurs in problem finding/solving stage at the beginning of the process, differences in approaches to divergent thinking could create problems or misunderstandings that might hinder international participants from even developing or generating ideas together.

Research has already suggested there are differences in approaches to creativity among fields. Berglund and Wennberg (2006) found in comparing engineering students and business school students (both groups in entrepreneurship programs) that while they had similarities in creativity test scores, they differed in approaches to creative problem finding/solving and the fields (engineering, business) emphasized different creative issues and methods. Similarly, different cultures (based on different values) can approach problem finding/solving differently (Choi, Koo, & Choi, 2007). One dimension on which cultures are frequently compared is individualism/collectivism. Individualistic cultures focus on the goals of the individual (personal goals) over group goals, while collectivistic cultures emphasize both equally or give preference to group goals (Triandis, 1989; Hofstede, 2010). This orientation can affect how people approach generating and developing ideas (divergent creativity) (Kim, Triandis, Kagitci, Choi, & Yoon, 1994; Basadur, Pringle, Kirkland, 2002).

If differences exist, why would these differences be important to the field of entrepreneurship and entrepreneurship education? One answer found in the 2010 AMA study is the reasons given for the increased importance in creativity in the future come from changes in the nature of work, global competition, pace of change and organizational structure. In order to meet these challenges of an increasingly international marketplace where global rather than national organizations exist, the ability to recognize and adapt to other’s ways of problem finding and idea generation will become be needed and should be reflected in the entrepreneurship classroom.

CURRENT STUDY

This study examines whether there are differences in divergent creativity performance in generation of ideas (fluency), the range/variety (flexibility) of ideas, and use of creative approaches between U.S. students enrolled in an entrepreneurship class and those from other countries/cultures. Additionally the effect that individualism/collectivism orientation may have on generation of ideas, comfort with divergent thinking, and perception of self-creativity is analyzed. The following research questions are advanced.

Research Question 1- Do students from different countries vary in the number (fluency) and range (flexibility) of ideas generated?

Research Question 2- Do students from different countries vary in their creative approaches used?

Research Question 3- Do students from individualistic cultures differ significantly from those in collectivistic cultures in the number of ideas generated (fluency), range of ideas (flexibility), their self-reported perception of creativity and comfort level with divergent thinking exercises?

METHOD

Sixty-four students enrolled in the first course of an entrepreneurship minor at a mid-western university in the U.S. were given a divergent thinking exercise and survey on creativity. The same instrument was given to students in either entrepreneurship or business courses from universities in Ireland (n=11), Sweden (n=3), France (n=1), Nigeria (n=19), Croatia (n=14), China (n=1), Kyrgyzstan (n=6), Honduras (n=1), and Kenya (n=9).

The divergent thinking exercise is a picture-word test. Students are shown a picture (Exhibit 1) and asked to write down as many words and ideas they can associate with the picture in one minute. Students also completed a survey about how comfortable they were doing the assignment using a scale from 1 (not
comfortable) to 10 (extremely comfortable); how much creativity they think they possess using a scale from 1 (not creative) to 10 (extremely creative); and to indicate from a list of fifteen activities the frequency of the times from 1 (never) to 10 (always) they use the activity when they encounter a problem or need to develop a new idea.

The picture-word tests were evaluated by counting the number of responses generated (fluency) and the range/variety (flexibility) of the responses. To assess range/variety (flexibility), responses were coded in the following eight categories: simply repeating the images on the picture; identifying action in the picture such as walking, running, etc.; creating a story as to what was happening in the picture such as going to meeting or interview, etc.; creating a broader meaning or metaphor for the picture; identifying a feeling such as sad, happy, fearful, etc. or stating a personal feeling such as I like this; identifying colors or shapes; identifying a time frame (past, night, etc.); expressing a sensory experience such as seeing (blurry), hearing (loud), tasting (sour) or touching (rough).

The degree of individualism/collectivism of the country was determined using Hofstede’s 2010 Individualism Index of countries. Countries with scores over 60 were classified as individualistic; countries with scores below 40 were classified as collectivistic. For the countries responding the degree of individualism/collectivism rating was: United States 91, France 72, Sweden 71, Ireland 70, Croatia 33, and China 20. There were no specific listings for Kenya, Nigeria, Honduras or Kyrgyzstan. However, the African scale from both East and West ranges from 20-27, the scale for Central and South America countries ranges from 6 to 30, and the scale for Russia, Bulgaria, Serbia lists 25 to 39, so these countries were included in the collectivistic category. Although only singular responses were received from France, China and Honduras, these results are included as they provide directional insight. The dominant idea types of the sole respondents tend to reflect their culture type, with France as individualistic and China and Honduras as collectivistic. T tests were conducted to determine significance between individualistic and collectivistic cultures.

RESULTS

Research Question 1 - Do students from different countries vary in the number (fluency) and range (flexibility) of ideas generated? Students from the ten different countries did vary in fluency and flexibility of ideas generated (Table 1). Students from the United States and Ireland demonstrated both the highest number of ideas generated and widest range of ideas than students from any other countries.

In addition to the total range (flexibility) for each country the two dominant approaches in the range were also identified (Table 1). Students from United States, Ireland, Sweden, France and Croatia and Kyrgyzstan tended to generate ideas that gave meaning to the picture (such as success, business, etc.) to stimulate creativity. Respondents from Nigeria, Kenya, Honduras and China tended to identify feelings or create a story such as “a man on his way to a successful meeting”. Nigerian respondents identified feelings, particularly making statements about feelings such as “I like this” or “This is a handsome man.” Other student responses did not make such direct statements or expression of personal feelings.
**TABLE 1**  
INTERNATIONAL VARIATIONS ON CREATIVITY EXERCISE

<table>
<thead>
<tr>
<th>Country</th>
<th>n</th>
<th>Sample %</th>
<th>Culture Type*</th>
<th>Idea Fluency</th>
<th>Idea Flexibility</th>
<th>Comfort</th>
<th>Self-perceived creativity</th>
<th>Dominant Idea Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>64</td>
<td>50%</td>
<td>I</td>
<td>10.55</td>
<td>3.95</td>
<td>8.34</td>
<td>6.94</td>
<td>Giving Meaning Repeating Something</td>
</tr>
<tr>
<td>Ireland</td>
<td>11</td>
<td>9%</td>
<td>I</td>
<td>6.75</td>
<td>3.88</td>
<td>6.64</td>
<td>5.82</td>
<td>Giving Meaning Repeating Something</td>
</tr>
<tr>
<td>Sweden</td>
<td>3</td>
<td>2%</td>
<td>I</td>
<td>3.66</td>
<td>2.00</td>
<td>5.00</td>
<td>5.33</td>
<td>Giving Meaning Repeating Something</td>
</tr>
<tr>
<td>France</td>
<td>1</td>
<td>1%</td>
<td>I</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>Giving Meaning</td>
</tr>
<tr>
<td>Nigeria</td>
<td>19</td>
<td>15%</td>
<td>C</td>
<td>1.50</td>
<td>1.42</td>
<td>6.28</td>
<td>6.94</td>
<td>Identify Feelings Giving Meaning</td>
</tr>
<tr>
<td>Croatia</td>
<td>14</td>
<td>11%</td>
<td>C</td>
<td>4.77</td>
<td>2.77</td>
<td>5.86</td>
<td>6.36</td>
<td>Giving Meaning Repeating Something</td>
</tr>
<tr>
<td>Kenya</td>
<td>9</td>
<td>7%</td>
<td>C</td>
<td>1.25</td>
<td>1.25</td>
<td>5.67</td>
<td>6.89</td>
<td>Creating Story Repeating Something</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>6</td>
<td>5%</td>
<td>C</td>
<td>2.00</td>
<td>1.33</td>
<td>7.83</td>
<td>7.83</td>
<td>Giving Meaning Creating Story</td>
</tr>
<tr>
<td>Honduras</td>
<td>1</td>
<td>1%</td>
<td>C</td>
<td>2.00</td>
<td>1.00</td>
<td>8.00</td>
<td>8.00</td>
<td>Creating Story Identify Feelings</td>
</tr>
<tr>
<td>China</td>
<td>1</td>
<td>1%</td>
<td>C</td>
<td>1.00</td>
<td>1.00</td>
<td>9.00</td>
<td>9.00</td>
<td>Creating Story</td>
</tr>
</tbody>
</table>

*-- C = Collectivistic   I = Individualistic

Research Question 2- Do students from different countries vary in their creative approaches used? Of the 15 possible approaches to creativity, students were more similar than dissimilar in identifying their top three creative approaches. Table 2 highlights the top three approaches used for each country. The most dominant choices were internet and talk. Internet was listed by all respondents from all countries; 4 as first choice, 3 as second choice, and 1 as a third choice. Talk was listed by students in 7 of the 8 countries responding; 1 as first choice, 5 as second choice, and 1 as a third choice. There was variation in
these responses. For example, students from the United States more commonly talk as their initial approach, followed by conducting an Internet search, followed by listening to music. African respondents on the other hand, take a more reflective approach. Nigerians reported that they read, then talk with others, and do an Internet search. Four respondents from Kenya reported using other more reflective approaches more commonly which included “creating simulations”, “have an inner chat with myself”, “imagine myself and try to solving problem from my personal understanding”, and “pray”.

**TABLE 2**

<table>
<thead>
<tr>
<th>Country</th>
<th>Culture Type</th>
<th>Approach 1</th>
<th>Approach 2</th>
<th>Approach 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>Individualistic</td>
<td>Talk</td>
<td>Internet</td>
<td>Music</td>
</tr>
<tr>
<td>Ireland</td>
<td>Individualistic</td>
<td>Brainstorm</td>
<td>Talk</td>
<td>Internet</td>
</tr>
<tr>
<td>Sweden</td>
<td>Individualistic</td>
<td>Internet</td>
<td>Talk</td>
<td>Read</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Collectivistic</td>
<td>Read</td>
<td>Talk</td>
<td>Internet</td>
</tr>
<tr>
<td>Croatia</td>
<td>Collectivistic</td>
<td>Internet</td>
<td>Talk</td>
<td>Brainstorm</td>
</tr>
<tr>
<td>Kenya</td>
<td>Collectivistic</td>
<td>Internet</td>
<td>Mind Map</td>
<td>Talk</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>Collectivistic</td>
<td>Internet</td>
<td>Talk</td>
<td>Mind Map</td>
</tr>
<tr>
<td>Honduras</td>
<td>Collectivistic</td>
<td>List</td>
<td>Internet</td>
<td>Talk</td>
</tr>
<tr>
<td>China</td>
<td>Collectivistic</td>
<td>Sleep/daydream</td>
<td>Internet</td>
<td>Word Assoc</td>
</tr>
</tbody>
</table>

*Top three approaches rated on 1 to 10 likelihood of use scale; France omitted (non-response), Honduras and China based on single responses*

Research Question 3- Do students from individualistic cultures differ significantly from those in collectivistic cultures on the number of ideas generated (fluency), variation in types of ideas (flexibility), their comfort level with divergent thinking exercises, and their self-reported perception of creativity? Students from individualistic cultures evidenced significantly greater fluency in idea generation vs. their collectivistic counterparts. The average number of ideas generated by students from individualistic cultures (e.g., US, Ireland, Sweden, France) was 9.75 compared to 2.5 generated by those from collectivistic cultures (e.g., Nigeria, Croatia, Kenya) ($t = 11.06, p < .01$). Flexibility, or the range of ideas, differed significantly with a mean of 3.82 different types of ideas (e.g., giving meaning, repeating something, identifying feelings, creating a story), in individualistic cultures, vs. 1.76 for collectivistic cultures ($t = 8.05, p < .01$). Students from individualistic cultures were significantly more comfortable with the exercise, 7.87 vs. 6.33 ($t = 3.43, p < .01$). Interestingly however, there is no significant difference in perceptions of one’s own creativity based on culture type (Table 3).

**TABLE 3**

<table>
<thead>
<tr>
<th>Creativity Variable</th>
<th>Individualistic Mean</th>
<th>Collectivistic Mean</th>
<th>$T$</th>
<th>$Df$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>9.75</td>
<td>2.50</td>
<td>11.06</td>
<td>104</td>
<td>.000</td>
</tr>
<tr>
<td>Flexibility</td>
<td>3.82</td>
<td>1.76</td>
<td>8.05</td>
<td>66</td>
<td>.000</td>
</tr>
<tr>
<td>Comfort</td>
<td>7.87</td>
<td>6.33</td>
<td>3.43</td>
<td>124</td>
<td>.001</td>
</tr>
<tr>
<td>Self-perceived</td>
<td>6.64</td>
<td>6.88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>creativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Journal of Higher Education Theory and Practice vol. 13(2) 2013 105*
DISCUSSION

This study examines similarities and differences in divergent creativity, approaches to creative problem finding, and perception of one’s creative potential across cultures as well as the possible effect of the cultural value of individualism/collectivism on these areas. Students from different cultures did have differences in both the number of ideas generated (fluency) and in the range of ideas (flexibility). Additionally, these differences were significant when comparing students from individualistic cultures with those from collectivistic cultures indicating that students from individualistic cultures score higher on this divergent creativity test. This finding is consistent with earlier studies in which Western cultures scored higher on creativity picture word tests (Jellen and Urban, 1989).

In examining the responses, particularly in the range of ideas (flexibility), there were also similarities. Students from all countries chose developing a meaning whether it was providing a metaphor/meaning or in creating a story as one of their top two choices in expression of ideas (flexibility). The difference was that the students from collectivistic cultures generally only evidenced two types of approaches to explain the picture, whereas those from individualistic cultures used more approaches.

One explanation for these differences might be comfort level with this type of picture word test. As the findings indicated, students from individualistic cultures felt significantly more comfortable with this type of exercise than did students from collectivistic cultures. One explanation might be that individualistic cultures value self-expression more than collectivistic cultures in which the norm is on the group rather than the individual. Therefore, students from individualistic cultures may be more prone to feeling comfortable developing ideas in this type of arena and sharing initial responses (even when these responses may not appear related or well thought out) then students from collectivistic culture would.

Additionally, creativity itself may be more valued in some cultures than in others and the perception of what is creative could differ depending on cultural values. Perhaps this type of divergent thinking exercise might be more biased toward the expressions of creativity of individualistic cultures than other cultures (Zha, et al, 2006). For example, even though the test results indicated differences in creative potential, there were no significant differences in the students’ perception of their own creativity. Independent of the individualistic/collectivistic cultural orientation, all students felt they were more creative than not (basically a 7 out of 10 on the scale).

Just as in the examination of the options chosen for the range of creative approaches, there were similarities among students in approaches to generating creative ideas to issues/problems. Despite this overall similarity there was a distinction between individualistic/collectivistic cultures in the use of talk. Talk was listed as the first or second approach by students in all the individualistic cultures, but talk was not listed in first place by any of the students from the five collectivistic cultures, listed in second place by 3 groups and in third place by 2 groups. Furthermore, the type of talk envisioned may vary substantially given the differences in fluency and flexibility. An example of these variations is the talk referred to by the Kenyans as having “an inner chat with myself” or praying which is different from the group or interpersonal talk mentioned by U.S. students. Although not asked in this analysis the use of the internet may also vary. For example is the internet used to check a fact or to stimulate thinking such as looking at pictures or reading blogs?

RECOMMENDATIONS

What does this suggest for the classroom in teaching divergent creativity in the context of a global society?

1. In teaching faculty should emphasize that cultural orientation may be a factor in how people generate ideas. Reinforce the idea that creativity is culturally bound and develop students’ awareness of how their culture may influence what they see as creative and how they develop/express creativity. Have students practice using other methods such as reading, mind mapping, lotus blossom, silence, etc. to understand the process can affect the type of idea is generated.
2. Develop an appreciation for differing approaches to divergent creativity, help the student see how their approach is similar/ or dissimilar to other cultures, and identify ways in which they may have to adapt to different cultures. For example, using the findings in this study on fluency, flexibility, comfort, and creative approaches, have students identify what practices might be good for a person with an individualistic orientation operating in a collectivistic society and what practices might be good for a person with a collectivistic orientation operating in individualistic society. The following are some suggestions of students drawn from such a class exercise.

Suggestions:

For individualists in a collectivistic culture, brainstorming or throwing out a large number of ideas might not be perceived positively. This behavior could be perceived as self-important or communicating that none of the ideas really matter. Additionally, talking before researching or reflecting may be perceived as thoughtless of others’ time and imposing your will on them.

For collectivists in an individualistic society, trying to develop the best one or two ideas and share them might not be positively seen by individualists. This behavior could be perceived as hesitant or unsure and reflective of one who is unable to develop concepts. Additionally, not engaging in talk until you have reflected might be perceived as holding back the progress of the group.

3. Be aware of the importance of valuing others. Remember although the fluency and frequency varied between cultures all students independent of culture thought they were creative.

LIMITATIONS AND FUTURE RESEARCH

All surveys were administered in English which could have potentially posed a problem with clarity in directions for those for whom English is a second language. Although the directions regarding the picture exercise stated “Take a look at the picture below. Type as many words or ideas that you can which you associate with the picture. You have one minute” this may have been confusing for some students. Additionally most of the surveys of international students were administered online, while most of the surveys of US students were administered in paper format in the classroom. This difference could have affected performance and comfort level.

Finally, there was small sample size in China, France and Honduras. Future research should focus on data collection from additional countries representing both individualistic and collectivistic cultures to see if results are similar with larger sample sizes. Further, incorporating a self-response scale on individualism/collectivism to compare with the Hofstede index would allow for investigating individual differences within cultures. Future research opportunities also include asking students how important they perceive creativity to actually be in business development. This would facilitate the assessment of variations in cultural perceptions toward the value of creativity, particularly as applied to business settings and problem solving.

CONCLUSION

This study demonstrates the importance of culture in divergent creativity as well as the growing similarities between approaches and ways of expressing ideas among cultures and the importance of discussing these in the classroom. In the world of global interconnections, particularly driven by the internet, students will need to be more aware of these connections to communicate more effectively and build more successful organizations.
REFERENCES


Forthcoming in the Journal of Entrepreneurship Education


EXHIBIT 1
Promotional Determinants of Business School Retention: 
A Case Study Approach

Gyongyi Konyu-Fogel
Walsh College

Alan E. Grossnickle
Grace College

The study examined promotional determinants of curriculum components and faculty role in business and entrepreneurial leadership programs. Program concentrations, major degree options, and faculty interactions with students were found as the most important attributes of business school retention. The recommendations may assist business schools to improve student retention and satisfaction.

INTRODUCTION

Intense competition has made student attrition a concern for colleges and universities. Attrition is costly and generates considerable concerns for educational institutions (Tinto, 1993). This is especially true for small schools that do not have huge endowments, and must depend on tuition and fees to support programming. The loss of students has a detrimental impact upon budgeting as the costs involved in recruiting new students is higher than the cost to retain existing students (Braunstein, Lesser, & Pescatrice, 2006). Many universities are looking for ways to differentiate from the competition by offering creative programs that meet the needs and wants of students. Business schools must recognize and furnish what is important to college students (Elliott & Shin, 2002).

Research indicates that schools must identify determinants that will provide higher levels of satisfaction in course programming, curriculum components, and interaction with professors. According to Letcher and Neves (2010), a high level of emphasis on achieving student satisfaction implies that universities, as other service providers, place an increasing emphasis on satisfying student needs and wants to remain competitive.

The purpose of the study is to identify promotional determinants which may result in higher levels of student satisfaction leading to improved retention. A case study approach is used to examine closely the relationship between determining factors of business school retention. The study is aimed to evaluate intangible factors that are likely to impact student satisfaction, recruiting and fundraising, and student retention that may positively affect student outcomes at business schools.

The study was conducted at the School of Business of a Midwest University. One of the unique options at the school is the Entrepreneurial Program with Integrative Cooperatives (EPIC). This program places high achieving students directly into a co-op program starting the sophomore summer and through graduation. The following business program offerings were evaluated in the study: Bachelor of Business Administration (traditional), Bachelor of Administration (EPIC), Bachelor of Science in Accounting
(traditional, and Bachelor of Science in Accounting (EPIC). The average GPA’s of the students is in the 3.75 or greater range with specific orientation classes and a lab class that corresponds to the co-op program. Students in the traditional programs have a two semester internship which is required for graduation. Except for the lab and orientation classes, students from both programs are in the same classes. At the present time, there are two majors, business and accounting, and three minors, business, accounting, and marketing. The marketing minor was recently added to benefit other schools within the University as well as students enrolled in the School of Business.

LITERATURE REVIEW

Colleges and universities are faced with a declining enrollment of high school students (Marcus, 1989). Extreme attrition produces major problems for both students and colleges and universities (Tinto, 1993). The pool of high school students continues to decline as evidenced in a study conducted by a research firm for the University of Saint Francis (Noel-Levitz, 2011). This study further indicates the University is at the national average for first-to-second year retention rates; however, the third year retention rates indicate steep declines. These trends regarding persistence and completion are alarming, and indicate the need for intervention programs.

Higher educational institutions need to think outside of the box regarding strategies which will drive students to enroll at schools; however, more importantly, retain these students once enrolled at these institutions (Marcus, 1989). It is more costly for schools to recruit and enroll students rather than retain students in existing programs (Braunstein et al., 2006). Schools are becoming more aware of the importance of increasing student satisfaction as a method to improve student retention. One method that has been found is the use of student satisfaction questionnaires or surveys to find information that can help institutions to measure how schools are performing (Shurden & Santandreau, 2005). This indicates that students are customers. Therefore, universities must stress the importance of customer relationship management. Shurden and Santandreau (2005) suggest that students must be listened to, and that schools need to discern what is important to these customers. This means that schools must search for determinants that will keep these customers satisfied for long-term growth and future success.

Elliott and Shin (2002) found that single answer questions may not be a good way to survey students, and suggest that multiple-attribute satisfaction questions would be a better way to measure. A simple yes or no answer is not effective as single answer questions fail to measure quality and educational attributes. Research suggests that students must take control of the college experience by getting involved in career planning, joining campus organizations, developing internships, and providing service to the community (Letcher & Neves, 2010). The authors further suggest that instructors need to help students gain self-confidence as well as providing a valuable educational experience and a solid learning environment.

According to Giese and Cote (2000), there is no single definition of customer satisfaction. They suggest that satisfaction can be explained best as a response to an evaluation process noting that problems occur when selecting a definition and comparing results when “operationalizing” the definition. Therefore, organizations must use care tailoring the survey specifically to the type of customer satisfaction questions which can be customized for particular needs Belch & Belch, 2009). Other studies suggest there is a relationship between variables relating to the students’ goal achievement and social integration into academic life (Wetzel, O’Toole, & Peterson, 1999). Academic and social factors appeared to be the most important reason for persisting to graduation. Wetzel et al., (1999) found that progress in academic work measured by GPA and hours attempted and earned guided the attrition/retention decision. Colleges and universities should track the reasons for attrition and identify students who may be at risk in the first year of college (Moller-Wong, Shelley, & Ebbers, 1999). This can allow schools to intervene early in the process to reduce the attrition and put in to pace retention initiatives.

Many schools use assessment tests for the purposes of gathering opinions and making decisions relating to retention opportunities. In this case, information is tested regarding how well students perform on examinations relating to the business core. These researchers conclude that assessment is used for accreditation measures; however, the ultimate result is continuous improvement in student learning.
outcomes (Callahan, Strandholm, & Dziekan, 2010). Coupled with assessment are the results of student ratings on course evaluations. This research indicates that regardless if students rate a course high or low is not necessarily a predictor of retention success. Students who score high or low basically want better courses in the future and are not satisfied (Langbein & Snider, 1999). The authors suggest that these findings clearly indicate that caution should be exercised when using course evaluations for personnel reviews. For example, when performance reviews are used for the purposes of making promotion and tenure decisions. Another retention concern can be the issue of gender imbalance.

Falkenberg (2003) claims that historically the male-female ratios in business schools are not balanced, and suggests that “the percentage of female undergraduates is double that of female faculty” (p. 175). This research took place in Norway, and the research question focuses on retention and ‘organizational attachment’ relating to gender imbalance (Falkenberg, 2003). Gerdes and Mallinckrodt (1994) surveyed students before enrollment regarding their expectations and then followed up six years later to discern college success or failure. The authors found that social adjustment was as good as or better than academic adjustment matters regarding prediction of attrition, and suggest that the problem is a combination of emotional, social, and academic issues. Roberts and Styron (2010) note that being connected socially is an important predictor of students who do persist and further suggest that satisfaction and involvement may be low. Reinstein and Garr (1995) recommend that colleges and universities should consider creative and innovative programs to further retention and slow the decline in enrollment. The authors suggest establishing advisory boards from industry to help foster better relationships with stakeholders. These initiatives may include career days, open houses, and an information center to get the message out about departmental goals and objectives. These outreach programs had a positive effect on increasing growth in accounting majors (Reinstein & Garr, 1995).

Helgesen (2008) found that customer relationship management programs provide value to the student in establishing needs and wants. The author suggests that student satisfaction surveys should be done to assess the value proposition offered to students. In this way, decisions can be made relative to what delivers value to students. Helgesen (2008) also found that customer relationship management leading toward better retention is more important than acquiring the students from the beginning. Thus, student retention has become an important consideration for colleges and universities when offering higher education. The value proposition should match student needs by identifying key success factors (Helgesen, 2008).

Entrepreneurship education is another factor for business schools to consider. Many students are interested in some day starting a business which fulfills the dream of business ownership (Levenburg, Lane, & Schwartz, 2006). The authors suggest that more academic majors should be considered as one way to expand and promote student dreams about business ownership. This includes creative curricula that reach out to students from other academic disciplines to take courses as electives or possibly minor in business programs (Levenburg et al., 2006). Neck and Greene (2011) note that entrepreneurial education is important because it offers real world experiences. Students gain invaluable practical and entrepreneurial skills which will be helpful even when working for large companies. Employers are interested in hiring students who possess these practical skills, and who are able to contribute immediately to the company mission. Entrepreneurial programs generally promote out-of-box thinking, creativity and innovation.

RESEARCH METHODS

This study used an exploratory research method to ascertain promotional determinants that may improve retention at the School of Business at a Midwest University. Primary data were collected using a questionnaire aimed at students in business classes at the university. Traditional undergraduate students, age 18 to 21, were asked to complete a two-page questionnaire at the conclusion of each class beginning the week of March 21, 2011 and ending the week of April 11, 2011. The questionnaire consisted of two sections: (1) First, participants were asked about their preferences for program concentrations, majors, and degree offerings. (2) Next, respondents were asked about their perceptions of professoriate
involvement and other reasons of their interest in the School of Business. From a total of 173 undergraduate students enrolled in the school, 128 students responded.

The questionnaire asked students to check class rank, gender, and GPA for quantifying the responses with questions specifically asking about what would encourage students to more likely stay or remain at the School of Business. Questions asked students about specific concentrations in marketing, finance, entrepreneurship, non-profit management, and management information systems. A 1-5 point Likert scale was utilized for all questions where the student could mark responses to questions relevant to concentrations. This also included questions on student preferences regarding the addition of more majors in business. The final portion of this section of the survey involved adding degree offerings in finance, marketing, entrepreneurship, and general business management.

Several questions were related to the professor’s involvement, mentorship, advising, qualifications, and assistance with job placement and graduate school. The survey also asked participants about “other factors” that were deemed important for retention such as business school accreditation, student clubs, athletics, and overseas travel. The objective of the study was to obtain feedback about promotional determinants that are likely to cause students to want to persist in completing their studies at the School of Business. The following 5 hypotheses were examined:

\[ H_1 \text{ There is a difference in perceptions of students with GPA’s of 3.0 or greater and a 2.9 or less with regard to real world experience.} \]

\[ H_2 \text{ There is a difference in perceptions of students with GPA’s of 3.0 or greater and a 2.9 or less with regard to added majors in business.} \]

\[ H_3 \text{ There is a difference in perceptions of students with GPA’s of 3.0 or greater and a 2.9 or less with regard to professor assistance with jobs/placement.} \]

\[ H_4 \text{ There is a difference in perceptions of students with GPA’s of 3.0 or greater and a 2.9 or less with regard to an accredited business school.} \]

\[ H_5 \text{ There is a difference in perceptions of students with GPA’s of 3.0 or greater and a 2.9 or less with regard to area specific concentrations.} \]

DATA ANALYSIS

To identify promotional determinants that may help the School of Business attract and retain high quality students, the study examined variables that were reported in previous research as influencing and retaining students to persist through graduation.

Data analysis included descriptive statistics and inferential statistics using the SPSS statistical software. For comparative purposes, the data were divided into seven categories: promotional determinants, professor interaction, added majors, business concentrations, degree offerings, administrative, and other factors. Data analysis also included examining the difference between the perceptions and attitudes of promotional determinants of high achieving students, those with GPA’s of 3.0 and higher, compared to that of the students with GPA’s of 2.9 or less.

Promotional Determinants

Students scored the highest on the following five questions listed in order of the most important variable: (1) Professors with real world experience, (2) Added majors in business, (3) Professor assistance with jobs/placement, (4) Area specific concentrations, and (5) An accredited business school. As shown in Figure 1, the mean scores for these five questions were respectively, 4.28, 4.13, 4.03, 3.97 and 3.96. The questions were further analyzed using inferential statistics to determine if there were any differences, (equal variances assumed or not assumed), comparing the mean scores of the two different groups of
students, in this case GPA’s of 3.0 or greater or 2.9 or less. It was found according to a t-test done on all five questions, the value for all five questions was greater than p=.05. Therefore, equal variances were assumed, and there was no significant difference between the two groups.

The next procedure was to test the null and alternative hypotheses. The results indicate that in each instance, the null hypothesis is accepted. Students feel that the promotional determinants are the most important regardless of GPA in wanting to stay at the University.

Figure 1 shows the ratings on the five highest rated factors of promotional determinants of business school retention as perceived by the respondents.

**FIGURE 1**

**TYPES OF PROMOTIONAL DETERMINANTS OF BUSINESS SCHOOL RETENTION**

Figures 2-7 show the analysis of the respondents’ perceptions on each of the promotional determinants of business school retention examined in the study.

**Professor Interaction**

The strongest ranking of determinants by students was “interaction with professors.” Students ranked professors with real world experience and professor assistance with jobs/placement 4.28 and 4.03 respectively on the Likert scale. The least important determinant was doctoral qualified professors with a score of 3.59 (Figure 2).
Added Majors

Next in importance, were “added majors in business,” with sports management and a score of 3.90 as the most important determinant (Figure 3).
Business Concentrations
Management and marketing, with scores of 3.84 and 3.77, were the most important determinants for area specific concentrations, with a very low student interest in finance, management information systems, and non-profit management (Figure 4).

FIGURE 4
BUSINESS CONCENTRATIONS AS PROMOTIONAL DETERMINANTS OF BUSINESS SCHOOL RETENTION

Added Degree Offerings
“Added degree offerings” did not appear to have a huge impact on students. These scores were 3.74 for general business/management to 3.56 for entrepreneurship (Figure 5).

FIGURE 5
DEGREE OFFERINGS AS PROMOTIONAL DETERMINANTS OF BUSINESS SCHOOL RETENTION
Administrative Factors

Regarding “administrative factors,” an accredited business school was the most important determinant with a score of 3.96 (Figure 6).

FIGURE 6
ADMINISTRATIVE FACTORS OF PROMOTIONAL DETERMINANTS OF BUSINESS SCHOOL RETENTION

Other Factors

“Available athletics” with a score of 3.81 was the most important determinant with other factors while the other determinants in this category were ranked lower (Figure 7).

FIGURE 7
OTHER FACTORS OF PROMOTIONAL DETERMINANTS OF BUSINESS SCHOOL RETENTION
The results indicate that the most important determinant is that students want professors with real world experience. This suggests that students want professors who have past-industry experience, and who can bring real life and practical examples into the classroom. The application of the real world must be coupled with theoretical concepts that are important for developing critical thinking and problem solving. The second most important determinant found is “added majors.” This suggests that students want more program choices. The two most popular majors were sports management and management. Marketing and entrepreneurship were the next most important followed by finance.

The results also suggest that students want assistance with jobs and placement. Job prospects have become much more competitive due to the recent economic downturn. The next important determinant was area specific concentrations. The most important concentration to students was management, followed in order by marketing, entrepreneurship, and finance. The lowest ranked determinants for concentrations were management information systems and non-profit management. The results also suggest that students are interested in a business school that is accredited.

The least favorable determinants found were business clubs: Accounting Club and Students in Free Enterprise. Travel was ranked as a low priority for students and thus not an important determinant even though the business school offers these opportunities. For example, last year the trip was to Brazil to study green technology, and the planned trip for this year is to Europe to study businesses. Students did not feel that intramural athletics was an important determinant; however participation in available athletics was important. Regarding added degree offerings, it was indicated that marketing and general business/management were the most important degrees according to students.

**CONCLUSION**

The students’ interest in professors with real world experience seems to compliment what the business school has felt is important with the recent interviewing and hiring initiatives. Most of the current professors have extensive real world experience with corporations, government, or company ownership. Based on this, the school should ensure that faculty have real-world experience to better serve the students. As a high percentage of undergraduates are student athletes which may offer a reason for the student interest in sports management as an added major. Management was the second added major in terms of student importance followed by marketing and entrepreneurship. The low score in finance is understandable in a small business school as this major may be more rigorous or intense. This need may be currently met by the accounting degree. The impact of adding additional degrees did not appear to be of significant importance to students. The School may want to consider offering a combination of degree and concentration programs which could help satisfy the need for more options.

Professors with real world experience should have contacts to assist students seeking jobs. Traditional business or accounting students are required to have at least two semesters of internships which will help students to gain experience and hopefully be more employable after graduation. The goal is to give students the real world experience that many employers are looking for when hiring students’ right out of college. This program gives the EPIC students a competitive advantage versus other students from the School of Business or other competing schools. Professors will need to continue playing an active role in the success of assisting students with job placement.

Area specific concentrations are another important determinant to students. It may be possible for the school to consider a combination of added majors and concentrations rather than adding each. This may be an area for further research to establish the right combination of majors and concentrations to fulfill these promotional determinants. Higher levels of satisfaction could be accomplished by offering a more detailed survey to get a better understanding of student’s perceptions. Focus groups surveys and meetings with Business Advisory Board members and local organizations may provide input and generate dialog regarding promotional determinants that are important in student retention. Ongoing communications are helpful to cement relationships with faculty by letting students know that the Business School is interested in feedback to improve student retention. These recommendations can help the School of
Business create a sustained competitive advantage, grow enrollment, and most importantly provide an atmosphere where students want to persist through graduation.

REFERENCES


The Changing Role of the Entrepreneurial University in Developing Countries: The Case of Latvia

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The role of knowledge creators and accumulators like universities and their research institutions are consistently growing and obtaining new forms of operation. Recently the traditional university model considering importance of new knowledge flows in regional innovation systems tended to contribute to external knowledge absorption readiness thus requiring new roles for regional knowledge centres in less developed countries. In essence, today the model of interaction with the commercial sector has a much more complex mode. The primary aim of this paper is to systemize industry-university-society linkages, and emerging concepts of the entrepreneurial university in catching-up a country into the proper model scheme to catalyse a much easier and faster assessment of effectiveness factors for any university on its way to introducing top-down, or better bottom-up approaches of an entrepreneurial university. In the first part of this paper we analyse the concept of academic entrepreneurship and technology absorption readiness, the second part is devoted to entrepreneurial university models, and the third section analyzes the case of a small regional College and a national university in the capital city of Latvia.

INTRODUCTION

An entrepreneurial society refers to a place where knowledge-based entrepreneurship has emerged as a driving force for economic growth, employment creation and competitiveness in global markets (Audretsch 2007a&b).1 In this context, the entrepreneurial university plays an important role as both a new knowledge-producer and a disseminating institution. In this sense, an entrepreneurial university could be defined as a driver of competitive environments with a common strategy oriented to being the best in all its activities (e.g., having good finances, selecting talented students and teachers, producing quality research) and tries to be more productive and creative in establishing links between education and research (Kirby 2005)65 below. Consequently, an entrepreneurial university is not only a promoter of multiple support measures for entrepreneurship but is also a developer of administrative techniques,

strategies or competitive conviction (Antoncic and Hisrich 2001). Based on this, entrepreneurial universities are involved in partnerships, networks and other relationships with public and private organizations that are an umbrella for interaction, collaboration, co-operation and among the core elements of a national innovation system many different interactions may exist (Inzelt 2004). This means that the entrepreneurial university implements several strategies and new institutional configuration to work together with the government and industries to facilitate the generation and exploitation of knowledge and technology (Leydesdorff and Meyer 2006). But still the missing component is “entrepreneurial thinking”. High growth and high impact innovation requires an entrepreneurial mindset that is able to assess big challenges as big opportunities. Peter Drucker stresses that „entrepreneurs innovate” and deep involvement of e.g. academic entrepreneurs (entrepreneurs are not always business people) gets extremely high importance and entrepreneurial mindset is integrated into university community and in all its operational structures and parts. In the literature, theoretical models have tried to visualise and explain the phenomenon of entrepreneurial universities (Clark 1998; Sporn 2001; Etzkowitz 2004; Kirby 2005; O’Shea et al. 2005, 2008; Rothaermel et al. 2007).

RESEARCH

Triple Helix Model & Regional Entrepreneurial Universities

Innovation is a driver of companies’ competitiveness leading to an increase of productivity and efficiency of production. The role of knowledge creators like universities is consistently growing and obtaining new forms of operation. Several authors outlined by Etzkowitz H., Leydesdorff L. (2001) have stressed that since 1990s university-industry partnership was guided by interaction with government in a systematic way to promote economic and social benefits and outputs for society.

Triple-Helix theory emphasizes the importance of commercial return from a university, introduces the entrepreneurial university model and distinguishes several routes of knowledge and technology transfer. BankBoston study informed that MIT graduates have funded 4000 companies with annual revenues for USD 232 billion worldwide.

A more detailed approach considers the importance of knowledge flows in regional or national innovation systems (Etzkowitz (2001)) and EC (2001). In essence, the model of interaction has more complex mode. Sometimes the best way how universities may transfer their knowledge to industry and society is via soft or indirect channels, like publications, exhibitions, conferences, consultations, informal...
exchange or unpaid advices.\textsuperscript{16} Non-linear approaches to innovation processes requires a wider focus to understand clear role of both industry and university.\textsuperscript{17} Kautonen (2000)\textsuperscript{18} presents several categories of knowledge based companies involved: customers, suppliers, competitors and partners.

As a result of substantial private and public investment in research activities it is important to manage existing interactions in a way to get maximised return back.\textsuperscript{19} Sources of new knowledge might be classified as follows:

- research organisations (we can name them as “R&DO”);
- customers (C);
- other research driven firms (B);
- intermediates (here we classify also educational and training institutions, it could be better to name it as external expertise class;
- individual persons (P).

The variety of existing technology transfer channels are the main routes for commercial return - B2R&DO, B2B, B2C, B2P, R&DO2R&DO we described in our previous work, where we identified main technology transfer (TT) channels between R&DO and industry. There is growing importance of intangible components of technology transfer process: role of formal and informal linkages as well as skills and abilities to transfer, imitate, copy, adopt and absorb are increasing.\textsuperscript{20} Dalkir (2005)\textsuperscript{21} proposes three main steps in knowledge transfer and management model:

1. knowledge assessment, sharing and dissemination;
2. knowledge understanding, acquisition and application;
3. knowledge capture and / or creation including adjustment or update of captured one.

The primary aim of this paper is to understand better processes of industry-university linkages and emerging concept of entrepreneurial university, and systemizing them into proper model scheme to allow much easier and faster assess factors of effectiveness of any university on its way to introduce elements of entrepreneurial university. In the first part of this paper we will analyse the concept of academic entrepreneurship, the second part is devoted to subject models, but third section analyses case of Latvia.

Delivering the “third mission” is now at the top of almost all university agendas. The term “entrepreneurial university” (Etzkowitz, 1983)\textsuperscript{22} has been adopted by academics and policy makers to describe outstanding universities that effectively deliver on their “third mission” (Clark, 1998,\textsuperscript{23} Van Vught, 1999, Lambert, 2003). A growing body of literature relating to entrepreneurial universities and academic entrepreneurship equates these developments to the commercialisation of science. However, a increasing signal has been emerging from the literature about a simple causal relationship between university-led scientific innovation and economic benefits (Fairweather, 1990, Liu and Dubinsky, 1999, Lambert, 2003). A growing body of literature relating to entrepreneurial universities and academic entrepreneurship equates these developments to the commercialisation of science. However, a increasing signal has been emerging from the literature about a simple causal relationship between university-led scientific innovation and economic benefits (Fairweather, 1990, Liu and Dubinsky, 1999, Lambert, 2003). A growing body of literature relating to entrepreneurial universities and academic entrepreneurship equates these developments to the commercialisation of science. However, a increasing signal has been emerging from the literature about a simple causal relationship between


\textsuperscript{17} Etzkowitz H., Leydesdorff L. (2001)

\textsuperscript{18} Kautonen M., Tiainen M. (2000) Trajectories, Innovation Networks and Location. A Comparative Study of Two Regions in Finland. DRUID Winter Conference on Industrial Dynamics, Copenhagen, Denmark.


In many regions, universities are viewed as the core of the knowledge base, acting as key elements of innovation systems, supporting science and innovation-based regional growth (Huggins & Kitagawa 2008). The so-called regional engagement of universities has been developed through an evolutionary process during the last 50 years. Traditionally, universities primarily focus on teaching and, to some extent, research, while university output were elite education. Universities have had to seek alternative sources of funding from business, industry, civil society and non-national state actors. Also, the public funding became increasingly competitive funding, and research activities often require public-private partnership. This is called the “entrepreneurial turn”, or the servicing mission of universities (Tjedvoll, 1997; Inman & Schuetze, 2010) or entrepreneurial university (Gibbons et al., 1994; Clark, 1998; Chatterton & Goddard, 2000). Later, in addition to teaching and research universities started to adapt a third role (third mission) in regional economic development, which can be described as “community service”, “regional engagement” (Holland, 2001), “regional innovation organisation” or “academic entrepreneurialism” (OECD, 1999).

But it is not sufficient to have all three components on university agenda: still the missing component is top-down driven “entrepreneurial behaviour”. Consequently, new entrepreneurial strategy should motivate entrepreneurial academics working in quasi firms or entrepreneurial laboratories in close collaboration with industry forming entrepreneurial mindset of university community in all its operational structures and parts.

**Way of Transformation to Entrepreneurial University**

* A. Promotion of Entrepreneurship Training in Different Forms

Transforming to an Entrepreneurial university requires a university whose graduates have received necessary entrepreneurship skills within study courses during their education, with the university offering practical exercises and case analysis in short term courses and workshops by sector professionals. Integration of schools of entrepreneurship in a study process help to diversify courses by adding entrepreneurial modules. The dimensions of entrepreneurship have obtained various forms that some universities include entrepreneurial modules in the framework of a multi-unit lesson, and some offer training as a separate field of study. In such a course, students learn basic concepts, the importance and the role of entrepreneurship in establishing small and average companies, get market and economic development understanding, and learn how to get commercial return from investment into R&D.

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26 Robert Huggins, Andrew Johnston, Rebecca Steffenson, Universities, knowledge networks and Regional policy (May, 2008)


B. Creating Entrepreneurship Opportunities in Universities

Universities now more and more provide an ecosystem that individuals or groups of nascent entrepreneurs can practice applying it. These environments are often called growth centers, design centres, business laboratories, pre-incubators and incubators, business idea contests, student entrepreneurship centres, innovative garages, business accelerators, which can operate inside universities or outside. In growth centres entrepreneur individuals or groups can obtain practical skills how entrepreneurs operate and be able to operate in turbulent markets themselves. Nascent entrepreneurs are supported in different ways by soft or hard innovation infrastructure, such as environment or facilities, or even workshop and laboratories. They are also offered legal, scientific and technical advice or consultations by experienced business people and industrial academics. They are taught marketing and financial affairs, developing "Business Plan", running on-job learning activities, and are supported financially until they generate sufficient deal flow.

C. Administrative Processes of Educational Environment for Growing Entrepreneurs

Universities, by establishing investigation and development centres, have realised their initial task and have transformed from being mere practical entrepreneurial skills oriented university to entrepreneurial and investigation focused university.

Models of Entrepreneurial University

Concept

Burton Clark (1998)\(^{32}\) defines an entrepreneurial university as “a type of modern university that stands on its own feet in order to adapt, on its own terms, to a highly complex and highly uncertain world”. Clark (2001)\(^{33}\) emphasizes common culture characteristic to entrepreneurial universities supporting commercialisation activities. Henry Etzkowitz (2004)\(^{34}\) foresees entrepreneurial future of universities and suggests hybrid organisational forms as most suitable to balance interaction with industry and public organisations with increasing independence of university. Preconditions of a successful university with the ability to transform towards entrepreneurship is strong and will tend to attract talented foreign students and provide competitive educational and research services; substantial financial assets, primarily in the form of land and buildings, to make own investments and sustain independence; growing income from tuition fees stabilises university budget; university can attract industry funding for research projects employing PhD students and in this respect are comparable to world leading universities received direct funding from state.\(^{35}\)

Independence should be also be delegated downward to departments, and to a certain extent to even the laboratory level. Instead of education sold to students by university or state lifelong learning academic partnership among teachers and qualified majority of students should be introduced where building of entrepreneurial spirit is merged with real research in institutes. Establishment of strong academic community with entrepreneurial mindset should integrate willingness of alumni to contribute to their Alma Mater. This is a relatively undeveloped use of university development potential in Europe and even more in Latvia.\(^{36}\)

The transformation of a university’s philosophy starts with the change of university-stakeholders relations and happens when a majority of influential people agree to implement organised initiative how to change university within a medium term.\(^{37}\)

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\(^{37}\) Clark B. (1998)
Creation of Environment and Entrepreneurial Mindset in the Academic Community

Creation of an environment for (active support of) knowledge exploitation should happen both inside and outside the university. Inside it’s university policy regards to its intellectual property, general strategy, spin-off and start-up companies, and sets motivation and conditions for university–industry interactions. It also includes the uptake of entrepreneurial modules in the regular curriculum of university students (as minor program or part of major programs). External environment includes incubator, science park, clusters, even venture fund. All university community should have as objective entrepreneurial behaviour and the improvement and the optimisation of instruments to better exploit university knowledge and technology. A relatively recent concept of pre-incubation was introduced.

Concept of pre-incubation is comparable to the Spanish (University of Barcelona) concept of “quasi companies”, but different from quasi companies: the incubatees don’t stay in the university, but are brought further under the organisational umbrella of the incubator. When entrepreneurial behaviour in the academic community (undergraduate, graduate and PhD students, teachers, researchers, professional and administrative stuff) is to be stimulated, than special training programmes for each of these groups have to be developed and implemented.

Teaching and researching personnel at least should have a practical working knowledge of entrepreneurship and a clear understanding of what changes are and what are not possible at their university: in case they are inclined towards setting up a company themselves, there should also be training and available facilities (to test the technological and market feasibility, and for the office of the company) for them – preferably at the university campus. The administrative stuff must also be able and willing to support and facilitate the entrepreneurial and innovation culture in the academic community.

Technology managers serve as intermediate link between two separate “worlds” – academics and entrepreneurs. We should keep in mind also traditional resistance of academics to firms and entrepreneurial managers and need to provide enough trust and appropriate culture to make collaboration motivated and encouraged.

Many of European academics take the term “entrepreneurial university” as simply research commercialisation and reduction of academic freedom in education and research. The solution might be informative, motivation and explanatory seminars about entrepreneurial university for academic community. The bottom-up policy approach to start transformations towards entrepreneurial university might be more sustainable compared to more used in the EU centralised or top down approach.

Several studies covered by Perkmann (2011) show that quality of research in departments of university correlates to engagement with industry.

Incentive policy for academics to engage in entrepreneurship is extremely important and usually is known as “university intellectual property policy” setting spread of any commercial income from owned by university intellectual property among researcher, department and university.

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42 Jacob (2003)

43 Ibid.

Open Innovation and University Technology Transfer

The tacit and tangible knowledge created and available in a university forms framework of the university’s innovation system and is used in technology transfer processes. Several main processes determine delivering of problem-solving consultancies for new innovative products and services.\(^{45}\)

1. Outside-in process, where external knowledge is sourced from universities, customers, suppliers and partners to initiate innovation inside firm.
2. Inside-out process, where university or its start-up transfers ideas to outside environment getting income from Intellectual property rights portfolio.
3. In-campus process, where collaborative research activities within university innovation system generate new innovations.
4. Collective or hybrid process, where academics and industry are jointly involved in collective research.

The core assumption here is that firms increasingly innovate by using external source of knowledge, and universities have increasing role as overall external knowledge providers.\(^{46}\)

The balance between open science tension more to publish and academic innovation motivation system related to IP protection and disclosure could be managed.\(^{47}\) Open science would provide access to university tacit and tangible knowledge at far earlier stage excluding cases of licensing of university IP by patents. The industrial or applied research much closer to market needs is more guided towards commercial return.\(^{48}\)

Commercial Return of University Research

The intellectual property (generated new knowledge, inventions, proof of concept) can be protected by a patent, and a patent owned can be commercialised either via giving a licence to or selling the patent to a third party. This is traditional route, although many universities rarely use this route. The other routes for knowledge transfer, used by universities, are (see also Figure 1):

- provision of highly skilled and talented graduates equipped with problem-solving skills to both private and non-commercial organisations represent the most valuable channel to society. Much limited but important transfer of knowledge happen through movement of research personnel to industry, sometimes it covers also technical and support stuff transfer. Availability of skilled workforce capable to meet future industry needs ensures industry for collaboration.
- exploitation of embedded knowledge: there is a lot of knowledge embedded in the university equipment and facilities: these university facilities are (most of the time) rather state-of-the-art and could be put at the disposal of companies (facility sharing). Sponsored research and equipment by companies reflect philanthropic side of partnership.
- contract research: contract research shouldn’t only bring in money, but also (new) knowledge (incl. methods and technology).
- research with collaborative nature: Joint R&D ventures with industry or clusters of technological firms: one of the core tasks of a university is doing research and the built-up expertise could be used to team up with industry (one company or a group of companies) to focus on more industrial oriented research leading to the development of new products; such a joint venture will be a new legal entity in which the university receives equity e.g. return for invested knowledge (expertise and patents / licences) and the use of university facilities (equipment, building). R&D consortia,

\(^{47}\) Coleman M., Cormican K. An exploration of open innovation in university technology transfer.
\(^{48}\) Ibid
Competence centres also play here an important role as well as industry professional associations etc. Science parks can be characterised by long term relationships between universities and industry and might obtain very complex and integrated, even including non-market channels of technology transfer formats. “On campus” presence provides additional benefits to new firms as result of technology diffusion and spillovers. Most significant of them is uncompensated “learning to analyse”, “in which a rival firm learns the technological or design secrets of another firm’s” (might represent also R&D consortia or organisation) formula, or products”. 49

- Licensing where firm purchases exploitation or exclusive use rights of new technological solution or know-how.
- Consultancy: knowledge and technology can be transferred via hired by industry university researchers and engineers providing technological solutions, problem solving consultancies and advices to industry. It often happens that consultancy contract is the first relation with firm, and if it is satisfactory then the more complex longer term collaborative contracts might be introduced.
- Continuous professional development – via this route the knowledge and the technological developments are transferred to industry within training programmes, e-learning tools, seminars and workshops.

- Start-up companies. OECD (2001)50 identified five types of university start-ups:
  o A spin-off company started by staff, professors and post-docs working in an university and using university born new knowledge (otherwise its start-up);
  o A new spin-off based on a licence (or a patent) for technology originating from the university;
  o New companies started by students or alumni and using obtained in campus new ideas;
  o New firms that are located in an academic incubator or science park;51
  o New companies in which the university has equity or which are directly founded by the university.

- Open source technology transfer, absorption and diffusion.

Some authors (Philpott (2010),52 Powers (2004)53) also stress potential of university to obtain large-scale open competition research grants from external sources for basic research as one of the form of entrepreneurial activities. As side measures supporting academic entrepreneurship can be mentioned publishing of books and articles thus enhancing university reputation and attracting industry to the campus.

The new firms started by graduates or alumni can rather be considered as start-ups and we can assess them as spin-off of the university when the university (knowledge and technology) substantially contributes to the company (at least in the start-up period). The same could be said also about professors and post-docs’ established firms.

The relevance of incoming flow of technological information to university is higher for less developed country and it may have the following channels:
- Import of relevant to research structure goods and services. All such import bear potential for absorption of technological information to be analysed for design purposes and reverse engineering.
- Foreign direct investment – through technology advanced subsidiaries and formal and informal channels;

50 The OECD publication uses „public sector” rather than university
51 This type of companies is not considered as a university spin off, it is mentioned because of OECD publication.
53 Powers J. R&D funding sources and university technology transfer: what is stimulating universities to be more entrepreneurial. Research in Higher Education, 45 (1).
- Collaborative networks: JV, competence centres, clusters, industry associations, technology platforms, project consortia and collaborative or partnership research.
- Recruitment of former in industry employed senior technological stuff and attraction of visiting professors.
- Diffusion of information through open source science, technology exhibitions etc.

**Triple Helix Model**

The initial linear model of the innovation was transformed by Etzkowitz and Leydesdorff to a Triple Helix model with a spiral approach of innovation capturing multiple reciprocal interactions among organisational structures (public, private and academic) “at different stages in the capitalisation of knowledge”.

Triple Helix model is part of regional innovation system as the universities play central role as knowledge – producers and disseminators. Nevertheless of the elaborated triple-helix based policies quite little changes in behaviour of government were achieved, the triple-helix approach was applied more in static way, like “a hollistic measure”, not a basis for actual and needed policy formulations.

According to the triple-helix theory in an emerging knowledge economy those places with entrepreneurial universities should increasingly demonstrate growing demand for knowledge transfer to industry and society. In reality we see deviations from this rule, i.e. asymmetric R&D spread.

The third role of universities – to cooperate with surrounding ecosystem in addition to teaching and performing world class research still stay on top of academic-industry relations thus narrowing earlier projected in triple helix approach of wider private – public interaction. The solution might be extension of this third role to creativity and cross-disciplinary conducive environment for talented people. This requires also for new revised actions within more dynamic and closer, long-term university-industry collaboration on a bases of entrepreneurial mindset.

The US policy document “Innovateamerica” already before eight years stated that “universities should promote an innovation-oriented culture while maintaining a commitment to creating new knowledge at the frontiers of research. This culture should seed traditional technical studies with new exposure to methods for creative thinking and translating ideas into commercial applications.”

It is not enough to attract the right firms and establish active collaborative academic-industry networks. The talented and skilled people should be attracted by business growth additional policies which means a strong focus of people’s social environment in addition to the business climate. The attitudes of politicians and planners should be redirected from firms to talents (in reality in three areas with different focuses: how to keep existing, how to return back gone and how to attract externally educated talents), i.e. away from transport hubs and urban areas to creative city-regions with high density and diversity of human capital, knowledge and creativity thus spurring economic growth. This strongly introduces the concept of so-called local innovation ecosystems with new tasks also for universities.

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http://www.easst.net/review/march1995/leydesdorff.shtml  
Findings

The entrepreneurial university in its simplest model interlinks its three missions: education, research and societal benefits (see fig.1). Institutionally that has meant having in a university structure besides traditional education and research functions, a technology transfer office (TTO) and active patenting of own research results by the university (Baldini, 2006).61

The general business model schema includes main fields and players of cooperation: education and research, government, industry, but it does not present in details all possible trajectories of knowledge creation and functions of entrepreneurship domain in the university environment. There can be two different approaches to university business model:

- wider view to university as a creator of intellectual and social capital for and in society,
- narrower view to university as economic value producer from created in campus knowledge as revenues-rising function.

Although, other alternatives could be located somewhere between them, which model to prefer depends on the agreement between society and the university. Not depending on institutional realization, knowledge transfer and entrepreneurship domain in current business model have the following roles (Howard, 2005; Autio, 2007; Mets, 2009):

- Knowledge diffusion is covered mainly by its communication to scientific and popular publications, and standards, capacity building of university graduates – new employees for private and public sector carrying new knowledge to their jobs, including life-long (post-graduate) training, but partly also via other staff public and personal communications, and (not protected as IP) new products and services launched by university spin-offs. That means also creation of social capital and sharing of knowledge via networks. The role of entrepreneurship domain is mainly educational: training university students and facilitating entrepreneurial culture within the wider, nowadays more virtual region.
- Knowledge creation means creation of new intellectual property and its protection at first, with following limited publications, sales of licenses on patents and other protected IP to industrial partners, including investment of own IP into spin-off companies. Entrepreneurship domain (support system) is mainly targeted to spin-off processes and entrepreneurial mindset and skills of the academic personnel, incl. development of entrepreneurial environment, business acceleration, couching and mentoring by earlier entrepreneurs, seed and venture capital funding, etc.
- Knowledge transfer partnerships includes donation and corporate sponsoring of research projects and funding scholarships, contracted teaching services, research and consultancy, cooperative and collaborative research, business and research partnerships, incl. industry research centres and institutes, joint or semi-industrial research laboratories, facilities and ventures. Because of complexity of ownership IP becomes special issue in this collaboration model. The roles of entrepreneurship in aforementioned activities are strategic, focused to management support functions to industry by linking business and IP strategies.
- Knowledge engagement arises from the third mission of university and reflects Triple Helix interaction to solve challenging problems for society. Such need is stated by state policy side and need for active collaboration of Triple-Helix partners in the field of strategic issues of knowledge-based economic development, including R&D and knowledge transfer (absorption) policies and support measures on the state level.

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Hindle (2004) tried to integrate commercialisation, entrepreneurship and spin-offs from public research. The use of the life-cycle of new business ideas as a base of model leads to linearity of process which in turn limits applicability of such a model.

Jacobs (2003) analysing the case of Chalmers Technological university and suggests the need to establish an integrated structure for supporting science based entrepreneurship. Getting substantial funds for research Swedish universities have achieved impressive research results. Lack of upside incentive scheme for academics combined with existing downside risks for inventors’ careers has lead policy for commercialisation of research results efforts to a failure.

The existing reward schemes for academics are not fully encouraged as researcher’s career cited publications determine the researcher’s reputation and recognition. According to Goldfarb (2003) three possible measures to compensate inventors are salary, royalties and equity. Jensen (2001) proves that

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most preferred by academics are research grants allowing the researcher to keep place in the lab and continue commercially viable and more prestige research. It is important for researcher to avoid downside risk of lost academic opportunity which occurs if commercial activity requires time and resources for the new venture instead of initially planned for research activity. In the case of grant researcher may work for company as a consultant or founder, but salary usually is insufficient incentive, especially in a case of tacit knowledge transfer. The alternative might be additional to salary in academic organisation consultancy fees; the major risk is related with potential conflict of interest. The third option for academics is to establish new firm in a way not to leave their academic position. In IPR regulated environment performance-based compensation mechanisms like royalties or equity prevail over hourly-limited or ceiling based salary schemes. If IPR protection is weak and share of tacit knowledge high, like for electronics industry, rational for transfer motivation is to use equity incentive. Transfer of IPR to university instead of researcher in USA (Bayh-Dole Act) has created encouraging incentives for inventors, including also universities, departments etc. Temporary leave for academics to set up a company which is traditionally used in USA, is less convenient in Europe; it has often been an interest of faculty to break-up the researcher – industry contacts as researchers’ payment system equal to civil servants conflicts with valuated compensations offered by industry – as a result it is difficult to retain such competent scientists or engineers. The consequence if universities have little involvement in technology transfer is that academics with their professor privilege (like in Sweden) tend to get consultancy fee as compensation. Facilities usually are not part of reward procedure. Swedish (in general – European) attempts to introduce in universities USA based entrepreneurship models lead to top-down model compared to bottom-up approach in USA. In terms of publications in recognised journals per million USD of university budget Sweden is second to Israel while USA ranks less than 20. Goldfarb (2003) emphasises that USA universities characterise higher capability, competition in all levels and flexibility to adapt to external changes. The bulk of undergraduate teaching in Sweden is done by teachers who do not perform research at all and are paid as civil servants. The conclusions of comprehensive analysis of Swedish academic entrepreneurship system performed by Goldfarb (2003) can be easily applied also to wider European regions. Etzkowitz (2003) emphasizes that top-down creation of entrepreneurial university model in centralised Europe’s university system is a response to growing innovation gap between USA and Europe. Research groups of 8-9 people lead by professor in USA operates with certain freedom as small business entities where professor takes similar to entrepreneurial leadership of research group, keeps relations with external financiers, spends more time for organisational work compared to research.

Wood (2011) introduces a process model approach to explain academic entrepreneurship as a series of separate events. The weakness here is that we replace earlier fundamental research system with fragmented and not interacting technology commercialisation actions.

As a result of the analysis we can assume that upside is a driven Entrepreneurial University is the new generation model of university development in USA to react to global competition for talents. Europe is trying to seed in centrally this model in universities with three component strategies which rarely yet is demonstrating good performance. The key question in Latvia is whether university with a clear education priority in strategy and research set as only a sub-priority can think for and move directly to the model of

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69 Goldfarb (2003)
72 Ibid.
entrepreneurial university? Almost all large public universities in Latvia have structure of departments where research institutes with few exceptions are sub-structures of departments with a highest priority to provide qualitative education services up to PhD level studies. Research activities are mainly integrated within PhD studies with aim to renew university’s professorship and to keep education – research linkages as getting feedback for teaching process. Institutes usually consist of 3-4 smaller divisions or labs heavily involved in teaching. Policy is determined mainly by the Dean and Department Council with strong educational priority dominance over research activities. All senior personnel are twofold elected – as academic teachers and researchers and counted in two parallel personnel registers. Sometimes it is really difficult to distinguish what part of time professor is spending for research as a professor and what as a senior elected researcher and how to avoid conflict of interests in projects. Such mismatch is catalysed by state system of financing (low state expenditure for R&D) and separate laws for Higher Education and Research more reflecting strive to survive for researchers instead of smart government policies.

The large emigration outflow of young talents and graduates abroad and low birth rates with followed essential decrease in number of students, aging professorship with limited rotation caused by required ability to provide lectures in Latvian, determines need for strategic changes in local university policies and administrative mindset. Estonian and Lithuanian universities not speaking about other more developed Baltic Sea Region countries show much higher flexibility and will, they operate with larger resources and outperform Latvian ones. The comparatively young regional university colleges (established in average before 15-18 years, as well as private Higher Education Institutions) have a role of catalysts of regional growth and might be more adaptive to new situation compared to less flexible national-wide universities with slow decision time and lack of willingness to change.

Therefore the conducive ecosystem model (fig.2) play much higher role in Latvia and we could map Entrepreneurial university model using extended Triple Helix model. It might be described by 3 logical stages:

1. Entrepreneurial university with its first and second priorities: high quality education with integrated entrepreneurial education philosophy and open innovation system for new generated knowledge;
2. Clear intellectual property rights policy and conflict of interest policy;
3. Societal benefits and commercial return achieved as a result of interlinkages within efficient local innovation system: technology transfer by different channels.
VeUC research potential, entrepreneurial academics

Facilities: Pre-Incubator, Incubator, VHTP, Satellite cluster, Competence centre

Grants, non-financial support, VC, loans, fiscal incentives,

SMEs

Large companies

Government

Network organisations

Knowledge concentration (people, talents)

Training, coaching, cons.

Creativity

Business development.

Feasibility

Innovation scans, audits

Idea generation

Feasibility

Development (2003)

Scale up, validation

Licensing in

Venturing

Spin-in

Running business, acquisitions

Spin-out

Licensing out

R&D services

FIGURE 2
FLOW OF NEW BUSINESS IDEAS AND ENTREPRENEURIAL CYCLE
The scheme presented in Fig.3 describes how the main actors of the ecosystem interlinks and can have different roles or functions. Several authors - Etzkovitz H, Philpott K.; Dooley L., O’Reilly C., Lupton G., have tried to develop integrated in academic activities entrepreneurship models describing social return and benefits from public research. Collaboration between university and industry in innovative ecosystem has various channels and scheme outlines just important ones. Government designs Innovation policy where with limited available resources tries to achieve best performance by setting real targets and reachable significant outputs. Technology transfer channels reflect share of industrially oriented

**FIGURE 3**
CONducive ECOSYSTEM AS A CATALYST TO AN ENTREPRENEURIAL UNIVERSITY MODEL
academics, all forms of collaboration with industry, support to early stage entrepreneurship, and access to early stage risk finance. The main factors that influence this cooperation are: economic, educational policy, business support programs, business environment, availability, diversity and accessibility of talents etc.

To demonstrate the usefulness of this model in Latvian environment first we will provide background analysis of the national innovation system evolution, business environment, economic situation and developments in research and development. In this paper we understand innovation system as one where those who produce new knowledge are well connected with those who apply and efficiently use it.74 and Goldberg et al. (2006).75

**Evolution of National Innovation System and Innovation Policy in Latvia**

The period since the collapse of the Soviet Union and the transformation from a command economy system to a market economy in 1990s, Latvia’s accession to the EU is characterised by conforming neoliberal radical “Washington consensus” reforms package almost relying on market processes and rejection of economic regulation and state intervention. Nissinen (1999)76. The changes in R&D systems followed soon as a balance between IMF supported liberal – monetarist and more social and top-down based on EU policies.77 Latvia despite deep economic recession and slow recovery in 1990ties implemented several radical structural reforms in R&D, like integrating majority of Academy of Science institutes within large universities (LU and RTU), but keeping soviet heritage and lacking western research governance standards and culture (design of feasibility studies, independent peer to peer review culture, massive internationalisation of professorship and students etc.).78

The strong shift to long term goals are based on knowledge governance, specialisation, regional development, creation of information society was adoption of sustainable development concept: Latvia: from vision to action in 2000.79

The first innovation policy in Latvia was designed before entering the EU as an answer to EU requirements in pre-accession period and was rather imitation or copy of EU policy then policy itself.80 The first really serious policy document was WB NIS assessment in 2002 followed by RIS Latvia Strategy 2007-2013 evaluated as the EU best practice. As a follow-up of support in 2005-2006 for policy implementation provided by the EU Innovative Regions of Europe secretariat resulted in design of appr.10 new policy measure’s concepts creating bases for further policy measure framework integrated in new competitiveness policy (unifying former SME, innovation, industry development and business environment promotion national level policies) and new national development plan. ESTER project helped to design risk capital industry development policy and as a first in CEEC establish Israeli Yozma-

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model based fund of funds to promote privately managed risk capital fund industry and Avotins (2006).

EU influenced innovation policy making by determining planning, implementation and monitoring of the EU PHARE program and structural funding policy rules and processes already in pre-accession period. In many cases the quality of state policies depended on quality of Phare program’s supported external long-term consultants to government institutions. The comprehensive evaluation of Phare SME programmes efficiency in 10 countries confirmed little value and low impact of EU investments in entrepreneurship and innovation promotion also in Latvia. EU Integration Bureau before accession concentrated all coordination, development and decision making power thus taking over the monopole role until entering into the EU and after of the Ministry of Finance (MoF) as main decisive body for development programs. Phare program ended in 2005 delivering to MoF complex and complicate for administration and control system for EU (Phare) fund management. Keeping on this approach lead to situation where the EU structural fund administration in last planning period with three level administration system was slow, bureaucratic (compared e.g. with FP7 procedures) and required in average three times more personnel per each aid Euro compared to e.g. Finland.

Latvia entered the EU with great differences in GDP and level of welfare (appr. half of EU average). Rule of free movement of people stimulated many economically active people to screen for better job opportunities in U.K. or Ireland resulting in substantial inflow of earnings up to 1-2% of GDP. Growing inflow of FDI from EU member countries and EU funds after accession together with easy accessible loans issued by Swedish and local banks to individuals lead to real estate bubble which started at high growth period 2004-2008 (e.g. “rich” years) when wages and real estate prices rapidly increased and local population changed perception from resistance to bank loan taking to become active borrowers. This was catalysed by intensive apartment and land sales to foreigners in Riga city and close surroundings, rocketing of public sector salaries, as well as transforming fixed apartment rent fees to free market ones thus catalysing real estate bubble. Latvia as a small economy in 2002 was characterised by World Bank (Watkins 2002) to be low cost, low tech, low value added economy which is very closely tied to the global economy. After the dramatic decrease of GDP by almost ¼ in 2008-2010 and sharp increase of unemployment during the downturn, economic activities in 2011 showed gradual GDP increase by 5.5%. For the past ten years, real GDP growth in Latvia has exceeded the average GDP growth rate in the EU countries. Ever since 2004, Latvia’s GDP has increased by 10.4% on average annually and in 2007 Latvia’s GDP increased by 10.3%. Rise of exports up by 30% during post-crisis period is based on demand growth in trade partner countries but from extremely low level. The economy was warmed up by essential inflow of EU structural funds, resident foreign earnings and revival of domestic demand. In 2012 Latvia faced the same challenges as many other EU countries: a slowdown of economic development, a need to reduce administrative expenses (in reality we saw opposite), and a government increasingly searching for measures to promote economic growth. The policies implemented in last

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decade finally resulted that at EU Innovation Scoreboard state’s innovation performance aggregated map of 24 indicators Latvia was at the last place.\textsuperscript{87}

This is due to continuously low investment in R&D (from 0.39 in 2003 to 0.60 % from GDP in 2010), the extremely small number of survived aging researchers (appr.2400 full time equivalent with half over age of 60)\textsuperscript{88} and PhD graduates in natural sciences and engineering disciplines (30-40 annually), low share of product innovative companies (3-6% compared to 12-15% as EU average) provides really challenging picture. Watkins (2002) in his research “Creating a 21st Century National Innovation System for a 21st Century Latvian Economy” noted that country’s research potential is losing critical mass to train new industrial researchers and engineers. The potential to support business need to acquire intangible knowledge and to contribute with applicable research services so crucial for creative imitation is critical. The total capacity of R&D personnel in Latvia is equivalent to the total R&D personnel in regional university in Sweden or in one mid-sized US laboratory.

Strong dependence on low cost subcontracting with a low share of high tech products in exports was followed by increasing regional disparities, decreasing education quality, lowering birth rate and high emigration outflow and brain drain.

Latvia is behind the EU and its Baltic neighbours in implementing smart innovation policies. When Estonia has set very clear policy goals and developed well-coordinated measures in 2002, Latvia from that up to present has strong coordination, division of tasks, organisational, procedural, fragmentation etc. reform challenges.\textsuperscript{89} However, advance in quality of national innovation policy documents compared to Estonian or Lithuanian ones (Watkins 2002, RIS reports, National Development Plan for period 2007-2013) were lost by frequent replacement previous by other planning documents or lack of will, time, resources to efficiently implement policy measures. The local funds after last downturn were completely substituted by EU funds keeping only the same investment in R&D level without increase or more precise targeting. The launch of Knowledge and Innovation System Department at Investment and Development Agency of Latvia (LIAA)\textsuperscript{90} at 2006 foreseen to take the role of future Technology Agency like TEKES in Finland, was closed down at 2009 as a result of new reform started by MoE in 2009 and melting stuff and functions between other LIAA departments. In 2012 LIAA has almost lost its competence to pretend to be Technology Agency as all former personnel has left agency. Weak policy implementation capacity, lack of resources allocated for policy implementation, broad and fragmented priorities together with frequent their change or mechanical assembly, strong political lobbying interests of narrow economic groups and high administrative bureaucracy of administrating EU fund programs are main reasons of poor innovation performance.

In 2010 the Ministry of Education and Science (MoES) promoted the concentration of research in 9 national importance research centres and introduced extreme approach of provision of funds for soft and hard measures on competitive performance indicators based project financing contracts in two stages. Firstly, all research institutes in 2011 passed performance (or excellence) evaluation and best ones were centrally invited by MoES to form 9 national significance research consortia. Secondly, all consortia submitted worked out their individual, spatial and collaborative development strategies. Uncertainty is in fact whether MoES will keep consolidation requirement also further on in upcoming calls or it stay as only isolated and partly formal initiative.

After crises Latvia like some other CEEC has stepped back from liberal market driven economy towards state led innovation policy models.\textsuperscript{91} State innovation policy measures with too broad targets and

\textsuperscript{88} Watkins 2002 and Innovation Scoreboard 2011
\textsuperscript{90} See also www.liaa.gov.lv
\textsuperscript{91} Karro E. (2011)
performance indicators sometimes permitted just to spend EU funds in such fuzzy continuing process with complex, heavy administrated and inflexible program procedures.

After a decade of WB report (Watkins 2002) we see almost the same situation when Latvia is similarly reliant on cheap labour intensive and low-tech industries with little demand for new knowledge. Today, economic development is often viewed as a technological phenomenon; for a lagging economy, it is seen as the phenomenon of catching up with technological advancements. Still, the fact remains that the generation of new frontier knowledge is concentrated in relatively few innovation driven countries able to concentrate required sizable resources.

Today, Latvia has based its knowledge economy policy on prioritair mix of knowledge-intensive and traditional sectors—information and communication technology, electronics, material science, wood processing, machinery, and biotechnology and pharmacology, while Estonia has set horizontal priorities. High-technology sectors represent only 2% of the total workforce in Latvia, which is much lower than the average of 3.5% in existing and future EU member countries. Karnitis (2004) emphasised growing role of network economy, “globalisation”, IT infrastructure and information society and knowledge governance as a base for Latvia’s innovation policy.

Comparative disadvantage, lack of the economy of the scale forces domestic businesses to search for economies of scope thus reducing cost gains per product as company increases count of products by reusing the same asset base, resource or competency. Researcher in personal contacts sees number of companies with such behaviour, especially in SME sector. Such behaviour does not lead to innovative and competitive products for bigger markets, because bigger markets require being best at least in something in order to be really successful.

Latvian industry still is driven by cost factors and its first priority is how to increase productivity levels. There are no new high growth innovative companies of national pride like Skype in Estonia. Open borders, technology development, Internet and social networks create even more new homogenous market spaces which are not limited to country or country union boundaries. Today social networks like Facebook can be considered as one of the biggest countries in the world with comfortable to customers information absorption environment.

The growing R&D spending in a future by peer-review evaluated international experts are well-performing at a few basic research institutions should be complemented with strengthening industrial or applied research component with technology absorption and technology commercialisation system and increase of innovation policy capacity.

Latvian enterprises are not concerned with investing in technology’s in-house development or adoption. The proposition demonstrates the statistics of European Union where Latvia’s indexes lag behind ES average in the all fields. The traditional model of technology transfer (PROs – industry) in Latvia has low performance. This cross-country comparison also emphasizes the limited participation of the Latvian private sector in the knowledge economy. Not only few private firms have been directly involved in the so-called knowledge intensive sectors but also the level of R&D effort funded by the private sector remains one of the lowest in Europe, accounting for only 0.2% of GDP, which is approximately six times lower than the EU average.

Social Profile of Small Entrepreneur in Latvia

Emergence of private sector, changes in law system, privatisation process liberated entrepreneurial activity of people in different levels. The first serious Latvia’s SME survey showed that in 1998 share of entrepreneurs below 30 is appr. 9-13%, that up to 2/3 entrepreneurs are men, and average level of entrepreneur’s education is significantly higher compared to other CEEC. The typical small entrepreneur

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94 In the context of this paper small and medium size enterprises are small compared to EU average figures
95 Tisenkopfs T. Ed. 1998. Kā jūtas mazais uzņēmējs (in Latvian, How do feel small entrepreneur?). Institute of Phylosophie and Sociologie of University of Latvia, Riga
(Tissenkopfs 1998) is strongly individualistic with limited contacts with other entrepreneurs and only rarely (11-16%) establishing different collaborative forms with competitors, suppliers or buyers. Company structure is hierarchical and management style authoritarian. The older is chef then more dominate authoritarian style of leadership excluding question of his/her authority. Even middle manager has no power to decide or take initiative for negotiating contract. Entrepreneurs often are inward looking with low level of ambitions, poor management skills and Latvia-centric values and thinking (Nissinen 2002). 96

According to Avotins (1998) 97 two thirds of entrepreneurs in Soviet time work and obtained first skills as managers or employed specialists, and started their first business as management buy-out. Such mode of privatisation when transferring all debts to new owner did not attracted additional capital, but opposite, made more pressure to profit and working capital. Only large and active companies in market were able to survive and start exports, the rest faced survival challenges and as a result of high inflation and low productivity many companies became insolvent and in many cases court appointed administrators sold novel technological machinery for metal waste price. 98 Several surveys (Tissenkopfs 1998, Avotins 2000, 99 RIS Latvia 2003 100, LIAA 2007, MASOC 2005, LTC study etc.) showed that local entrepreneurs identify and count only external factors as bottlenecks for increase of their firm’s competitiveness neglecting internal, depending on themselves as always is more easy to blame somebody else for failures.

Companies are occupied with short term revenue opportunity finding and in-house innovation execution, because they think universities cannot perform research for them, scientists are slow, there is information asymmetry and small size of business. (Latvia 2002) 101 The situation gradually improves with growing number of MBA graduates of Riga Business School, Stockholm School of Economics in Riga, Innovation Management MBA at Riga Technical University etc. The new western culture based graduates bring fresh knowledge often improved abroad or practised in foreign owned firms. However, the product innovative enterprises in Latvia are only 6.6% against 12-15% in developed countries. 102

The Republic of Latvia urgently needs a new development policy and active technology transfer could be the cornerstone in it, where the high absorption capacity would be "the key". 103 The policy to promote external knowledge transfer and adoption, 104 incremental process and organisational innovations, 105 which would allow to revitalise knowledge-based national development strategies.

The innovation culture in companies and intermediates in average is undeveloped and as a consequence, ability of imitation, transfer and creative adoption of external knowledge is low.

98 Rantiņš V., President of MASOC, personal communication, 2001.
100 RIS Latvia 2003 need analysis
Case Introduction: Three Universities

Ventspils University College (VeUC) as a regional education centre was established in 1998, and today it serves appr. 900 students attending three faculties: in Management, Language studies, IT and in emerging new electronics department. VeUC has defined six main areas of research specialisations in astronomy and astrophysics, space technologies, high performance computing, electronics, applied economic research and applied language technologies. From this competitive research two collaborative clusters were established and pass early development stage: satellite technologies and applied language studies. According to the national strategy Competence Centre in Electronics with strong focus to space technologies and National Research Consortia for ICT and Signal Processing were recently established.

The VeUC innovation system includes pre-incubator, incubator, science park (Ventspils High Technology Park), Technology transfer Office. The model of VeUC innovation system is shown in Figure 2. This model shows commercialisation and collaboration outflow of VeUC research potential of entrepreneurial academics ideas, solutions, competence to industry.

VeUC was the first university in Latvia seriously thinking to establish efficient incubation system. In 2011 new pre-incubator was established as a separate facility in business incubator and after two year operation’s experience it has proved to be efficient measure to save resources, reduce risk, to assess market viability and reality of nascent entrepreneur business ideas. The Business Incubator serves for up to 60 companies in knowledge intensive ICT, electronics, machinery and space areas; it has a branch incubator in Talsi city and it is a founder of Kurzeme incubator with incubator facilities in Liepaja, Kuldiga and Saldus. VeUC has implemented several cross-border projects with incubator and other Baltic science parks and universities to promote new techniques for new innovative business idea generation, design of training schemes for investor readiness and building networking with business angels, risk capitalists and financial intermediates.

In 2006 VeUC was among the first universities in Latvia to establish a targeted Technology Transfer Office (more precisely, Technology Transfer Contact Point (TTCP)). Its objective is to support commercialisation of VeUC IP potential, inventors, commercial contacts of researchers, industry collaborative activities, licensing, spin-offs and to operate as direct channel of interactions between academics and industry.

Since 2011 VeUC took the first steps in assessing its policies towards building entrepreneurial culture in university The Triple Helix model with interlinking components of education, science and industry has been suggested. Conducive to entrepreneurship local Ecosystem here plays more important role as usually is devoted to. It includes: Ventspils University College, Ventspils High Technology Park, Ventspils International Radio Astronomy Center, Pre-Incubator and Business Incubator in VeUC, Ventspils Technology Development Council and the Ventspils City Council. Ventspils city is diversifying its development strategy by promoting high-tech industry keeping updated transport and transit sector competitive advantages. Ventspils City Council is the main supporter of the innovation ecosystem and has invested appr. 9 million LVL in VeUC which is really outstanding case in CEEC.

Comparatively small in size is Ventspils University College with respective small total state education budget and limited guaranteed state funding for scientific institutions restricting curiosity research and strategic flexibility. The low quality of secondary educational system, brain drain, low birth rate, migration from regions to Higher Education Institutions based in capital Riga lead to low density of talent which seriously hamper the development not only in Ventspils city, but also in whole country. Gradual shift in teaching towards introduction of practical skills elements, entrepreneurial learning objects, increasing student and professor exchange and visiting foreign guest teachers, as well as increasing share of English language courses are in line of trajectory to Entrepreneurial university model.

TTO performs as the best in Latvia (see Table 1) but still has solid capacity to increase its performance. The new role of regional entrepreneurial skills centre has recently established lifelong learning centre.

With its 17,000 students, 13 faculties, more than 800 researchers and more than 20 research institutes University of Latvia (UL) represents itself as the largest comprehensive educational and leading research university in Latvia. The UL offers more than 150 state-accredited academic and professional study programmes. At University of Latvia research is conducted in over 50 research fields, thus representing four main areas of inquiry: the humanities, natural sciences, social sciences, and education sciences. The University of Latvia is renowned for its research on Latvian language studies, material science, information and communication technologies, process simulation and socio-economic, as well as environmental and health and medical science.

The institutes of the University of Latvia have longstanding research traditions, and they cooperate with their respective faculties. For instance, the Institute of Solid State Physics is a European Union 6th Framework Programme Center of Excellence, where advanced research is conducted on nanotechnologies, holography, and robot technologies; the Institute of Educational Research of the Faculty of Education and Psychology carries out comparative research on education in cooperation with approx. 50 countries all over the world.

The biggest technical and engineering university in Latvia is Riga Technical University (RTU). RTU has 8 faculties and 35 scientific institutes and it has one of the biggest numbers of students - 14746. RTU is an accredited, internationally recognised university providing high quality study programmes in engineering, technologies, computer sciences, natural and environmental sciences, architecture, building engineering, electronics and economics and business administration and carrying out extensive scientific research activities.

Research activity in RTU is an integral part of the study process and it has to be noted that many of the research programs are very important for the industry and economy of Latvia. RTU is one of oldest universities with long-lasting traditions in the engineering research area. RTU is comprised of 35 institutes, 49 departments, 35 divisions, 29 laboratories and 29 research centres. RTU manages the Latvian Technological Park and offers a favourable and encouraging environment for innovation and implements various projects of technology transfer.

The aim of the LTP is to support new technologically oriented and innovative entrepreneurship activities and their further development. LTP offers project management and consultancy services to managers and researchers regarding entrepreneurship and product development and assists in finding cooperation partners. LTP offers premises for starting business activities in small and medium-size industrial facilities.

The Innovation Centre (IC) of the UL has similar responsibilities like TTCP in VeUC. IC and also promotes cooperation between scientists and companies and commercialisation of selected research results.

In 2007 it planned to create two level technology promotion support system in Latvia: first level, more inward looking, represented by network of TTCPs and the second or international level TTO with highly skilled international personnel supported with finances to provide adequate assistance and grants for TTCP IP portfolio development. Unfortunately, MoE realised only one level thus essentially limiting services of TTCPs and weakening TT system in whole.

**Latvian Performance of University Research**

The economic downturn in 2008 caused an essential cut of the state R&D budget by 40% in 2 years (from 2008 till 2010) and was completely replaced by EU structural funds. The so-called guaranteed state’s basic infrastructure budget was reduced by 69% and in 2011 constituted only 4% of the VIRAC total annual budget. Such strong dependence on project based budget planning and open competition projects locally and internationally suggest that all budget lines are strongly allocated and fixed, limiting any research flexibility for curiosity research, experimentation of new unproven problem-solving technical solutions or laboratory demonstration models, and as a result shifts collaboration with industry toward short term consultancies or contract research compared to long-term collaborative forms. There
are few organisations specialised in the provision of innovation and technology related services. Dominance of small and micro innovative companies requires specific and additional fine-tuned services to reach sustainable and high growth trend. Lack of specialised service providers, especially in R&D and technology areas and almost non-existing supply of such services reflects non-existing demand and market segment, which in its turn lack of collaboration between academic and industry sectors.  

One of the most important objectives of university research is to strengthen the links between science and industry and to increase the commercialisation of new technologies as well as to support innovation which is the key driving force of economy. UL and RTU are active in patenting, fundamental researches and setting start-ups, but both have no results in licensing (see Table 1). This illustrates weak technology transfer capacity and traditions. The main problems are: lack of understanding, too teaching focus, “pure fundamental research approach” undeveloped innovation and entrepreneurial culture, information asymmetry and weak collaboration with industry in new product areas. All analysed universities are poor users of alumni potential for technology transfer. Low commercialisation performance in large universities heavily depends on MoES policies, demand and political capacity to implement strategic decisions. Quite often smart draft political decisions in real life turn in stagnation after academic lobbying. But even such malformed commercialised policy has influenced university strategies and forced changes, for example, Intellectual Protection policies.

**TABLE 1**

ACTUAL AND FORECASTED OUTCOMES OF THE VEUC, LU AND RTU**

<table>
<thead>
<tr>
<th>Metric</th>
<th>VeUC</th>
<th>LU</th>
<th>RTU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial offers</td>
<td>16</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>New Patents (local and international)</td>
<td>2</td>
<td>23</td>
<td>36</td>
</tr>
<tr>
<td>License negotiated/sold</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spin-offs</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Start-ups*</td>
<td>0</td>
<td>13</td>
<td>39</td>
</tr>
<tr>
<td>BI firms benefitting from University</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Industrial agreements</td>
<td>16</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Income generated from contract research and consultancies</td>
<td>5</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Study courses with integrated entrepreneurial modules</td>
<td>6</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Available entrepreneurial training courses</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Industrial / normal PhD students</td>
<td>16</td>
<td>89</td>
<td>569</td>
</tr>
<tr>
<td>Research turnover in 2011, mill.LVL</td>
<td>987 000</td>
<td>7 880 600</td>
<td>8 500 000</td>
</tr>
</tbody>
</table>

* - only university related start-ups were presented (established by students, graduates, alumni or teaching / research stuff  
** - Authors are grateful to M. Neimanis and R. Reklaitis kindly providing respective statistics on LU and RTU.

The replacement of national budget financing to university research doesn’t increase research performance. The case of VeUC ERI VSRC with its recent strong growth curve is outstanding and rather an exception if we keep into account the institute’s ability to keep the line of ambitious aims and vision with results achieved within last two – three years. The average research institute or laboratory with few exceptions demonstrates lowering of performance levels. EU requirements to increase dramatic low value of public and private funding for research should be accompanied with the concentration of limited resources for internationally competitive research activities, smart competitive specialisation, labour division, decrease in number of research institutes and structures and green light to interdisciplinary

research areas pushed by availability of local natural resources or demanded by competitive regional integrated industry.

RESULTS AND IMPLICATIONS

The analysis in this paper indicates nearly all complex factors influencing channels and process of knowledge commercialisation in the context of polycentric regional development in a country with low share of process, organisational and product innovations. The model of the entrepreneurial university is analysed in Triple Helix framework, and a majority of factors are important in this way, were identified. Finally, new role of regional universities on a VeUC case study basis were discussed when resources are limited and technology absorption readiness is foreseen as one of priorities of regional or national innovation policy. This more complex approach allows better economic and social return from provincial knowledge centres and integrate them into regional development and convergence policies for new EU planning periods. Such policy should support a more active role that is more ready and willing to grow centres instead of splitting for absorption and social needs equally available funds in regions. We have analysed how poor capacity of local innovation and research policies and low performance of implemented activities fragmentise available resources, create resistance to required changes in environments and ecosystems, facilitating outflow of talent and encouraging brain migration and capital out of country.

The readiness to adopt a new model of an entrepreneurial university is validated by providing case analysis of three universities. The process of technology transfer and socio-economic return in the capital metropolis and the regions is very different. The dominating strategy in large universities is education supported by research only as a secondary sub-priority. The top level administration with the face of rector office is introducing top-down third priority which has low understanding by majority of academics whose career is determined by the number of publications in locally organised international scientific conferences. More active and competitive researchers are overloaded with lecturing, work in structural fund supported projects or projects within industry. Latvia is adapting the proposed knowledge management model in the university from other countries trying to encourage local industry. Most challenges for private sector are related to low productivity, lack of innovation and development of new products or businesses in sectors with high added value. The majority of enterprises are micro and small firms lacking critical mass to invest in R&D and ambitions to grow further.

A low number of employed researchers of which a large part of whom are aging together with a low number of PhD students together create extremely low capacity which is much below the needed level to implement structural economic reforms. Promotion of entrepreneurial education, new high growth innovative firms and high value added jobs generate and encourage an entrepreneurial and creative mindset among university academics. The growing role of regional knowledge centres should be strengthened implementing smart and competitive specialisation strategies in regions able to generate substantial return of investments, but in metropolis per-review analysis and consequent elaboration of detailed work plan for concentration of limited resources up to uniting labs, research institutes and HEIs or forcing start of tight (not formal) collaboration replacing today’s activity parallelism, fragmentation and isolation.

Additional research is needed to investigate a model of regional innovation systems where priority is given to knowledge absorption readiness, and validated by case analysis of the VeUC. Obtained experience might lead to better adoption of entrepreneurial university models and could be used to assess core processes in a way of transformation of traditional teaching school strategy. It has become apparent that more social and economic value might be achieved from investments in education and research if the concentration of young talented people with entrepreneurial behaviour focus on innovation policy measures. If the environment and offers are not sufficient to keep locally talented people we cannot expect that we could compensate outflow of talents by returning or importing them. In the common EU market Latvia with its broad innovation policy measures would only become a transit corridor for highly skilled foreign people without capabilities to place them here for a longer time.
The change of university networks and transfer channels could drive further value to entrepreneurial and applied research, integrating open science. Whilst this paper examines the university within the context of becoming entrepreneurial and existing technology transfer channels, there exist opportunities that universities could use to generate additional value from their knowledge networks as the role of universities increases in national and regional innovation systems. Provincial HEI being sometimes the only knowledge centre in a region can essentially contribute in overall technology absorption readiness and firms’ competitiveness. Further studies may be needed to assess the role of open innovation knowledge transfer processes compared to protected technology transfer processes based on the university developed innovation ecosystem. Additional research will be made to investigate further the proposed ecosystem environment facilitating efficient technology transfer and absorption ability in line with substantial local and national innovation policy capacity building.

REFERENCES


Coleman M., Cormican K. An exploration of open innovation in university technology transfer.


Gibbons M. The New Production of Knowledge. for an in-depth exploration of the significance of networks in knowledge creation.


Powers J. R&D funding sources and university technology transfer: what is stimulating universities to be more entrepreneurial. Research in Higher Education, 45 (1).

Rantiņš V., President of MASOC, personal communication, 2001.


