Professional Skills Development at a Small Liberal Arts University in the Northeastern United States: Faculty Perspectives

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While many studies have addressed the perceptions of students or employers, only few explored the perspectives of educators who prepare students for professional careers. Hence, this study aimed to examine the faculty and staff perceptions of professional preparation at a Small Liberal Arts University in the Northeastern United States to explore whether improvements should be made in student professional skills development. The study found that professional soft skills, particularly communication and work ethic, were seen as at least somewhat important to professional success and an internship was perceived as the most important social component contributing to professional skills development. Although participants thought that the University prepared students slightly above average when compared to other institutions of higher learning, they believed that there was room for improvement for all professional skills, with communication, work ethic, and organization being the skills most lacking. The findings also revealed some interesting gender differences that affected participants' perceptions of importance and proficiency for certain professional skills.

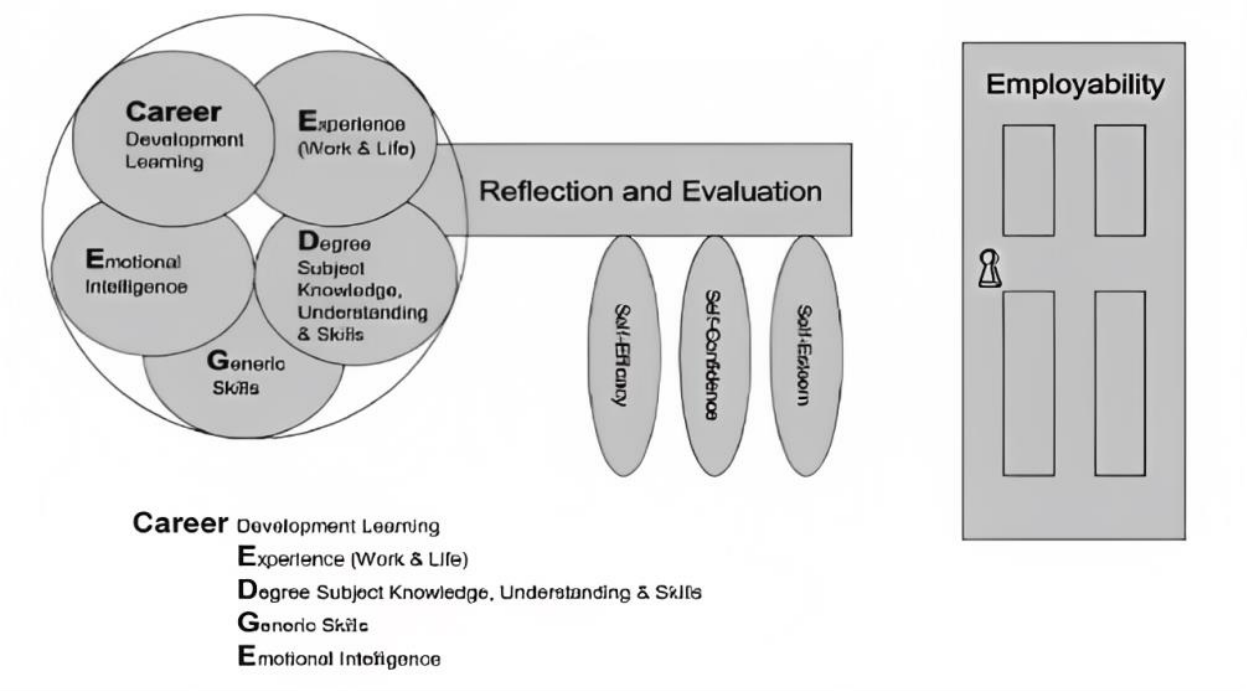
Keywords: professional skills, career preparation, educator perspectives, small liberal arts institutions

INTRODUCTION AND LITERATURE REVIEW

'Employability' refers to the various understanding and skills of an individual and how that conglomeration of skills affects a person's ability to secure a job and perform tasks specific to that job. Much research has been dedicated to the creation of an all-encompassing definition of employability that includes the diverse facets of one's knowledge, skills, and experiences (Andrews & Kigson, 2008; Pool & Sewell, 2007). One model, *CareerEDGE,* attempts to put all of the components of employability – and their relationship to each other – together in a simple and metaphorical diagram (Figure 1).

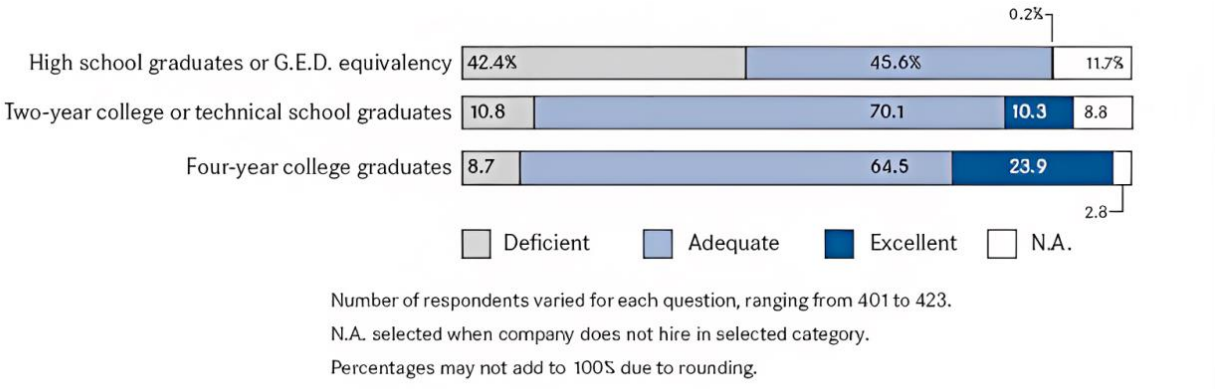
The "key" to employability is made up various types of knowledge, including: degree-specific expertise, generic professional skills, emotional intelligence, career development learning, one's life experiences, and the reflection that one has regarding all of these learning experiences (Pool & Sewell, 2007).

FIGURE 1
CAREER EDGE



Employers have reported being dissatisfied with the preparedness of recent college graduates and their lack of employability due to the disparity between important skills they expect from their new hires and the graduates' performances (Figure 2).

FIGURE 2
PREPARATION LEVEL OF WORKFORCE ENTRANTS



Preparedness of high school, two-year, and four-year college graduates for entrance in to the workforce – "Are they really ready to work" (Pool & Sewell, 2007, p. 31).

Common criticisms of today's graduates include the inability to effectively communicate using written or verbal methods, their consumerist use of technology versus the use of technology for advancement, understanding the basics of work culture (e.g., keeping regular hours, appropriate dress and behavior), and lack of flexibility in ambiguous work situations (Table 1; HR Policy Association, 2010; Levine, 2005; O'Brien & Deans, 1995). Understanding the employers' perspectives and their needs will assist recent

college faculty in preparing graduates and, therefore, help those graduates to become competitive applicants for open positions as well as performing well at their job once hired.

TABLE 1

Which Competencies Do College Graduates Lack?	
Competency	Percent of Employers Who Say Competency Is Lacking
Commmunication	49.7%
Flexibility & adaptability	37.0%
Tactfulness	35.8%
Initiative	28.9%
Teamwork	27.2%
Oraganizational	22.5%
Strong work ethic	20.8%
Self-confidence	17.3%
Problem-solving	15.6%
Detail-oriented	14.5%

Source: National Association of Colleges and Employers

The percent of employers who think competence is lacking regarding the listed skills (HR Policy Association, 2010).

There are many reasons that it is imperative that students must develop a strong and diversified professional skill set:

- As students frequently are seeking employment in a workplace they have little to no experience in, being a competitive applicant for a position means proficiency in a variety of interpersonal and professional skills going beyond the field-specific techniques (Kerr & Runquist, 2005).
- In a study by Shah et al. (2004) over 50% of graduate respondents reported that some soft skills were "very important" to success in their career, including communication, teamworking, decision making, problem solving, personal organization, self-motivation, and information technology.
- Another consideration is field of employment versus one's field of study. A survey taken of new graduates for job placement shows that 56% of them that were employed had a job that was relevant to their major (Shah, Pell, & Brooke, 2004). Another study found that 35% of subjects were employed out of college in a field that was either not very closely or not at all related to their field of study – making their soft skills important for work performance (Stone, Van Horn, & Zukin, 2012). It is projected that people will change jobs between 10 and 15 times during their working lives (BHEF, 2003). Both of these situations require graduates to fall back on their core skills in order to effectively learn a new job.
- For employers, determining the best person to fill an open position or deciding on who receives a promotion may come down to identically skilled individuals and an applicant's "soft skills" – how they manage their relationships and the non-technical aspects of their job (Caudron, 1999; McMurchie, 1998).

Further muddling the attempt at defining employability is the lack of a consistent expectation from employers. What one person may consider a learned skill, another may consider an unchangeable personality trait – either you innately have the skill or you do not. Or, perhaps a skill that impresses one employer may be a liability for an employer in another field. Certainly, the perspective of the definition-maker plays a role in the prioritization of the types of knowledge and deciding how those specific skills are

valued towards the algorithm for which a person is determined "employable." A study of job listings for music librarians most frequently listed organizational skills and the ability to prioritize, motivation, and flexibility, or the ability to handle multiple demands, as the top attributes desired in an applicant (Clark, 2013). For chemistry graduates, for instance, the ability to prioritize did not even reach the top sixteen priorities desired of graduates, as listed by Fortune 500 managers (Kerr & Runquist, 2005). Table 2 shows how a small sampling of only five different studies had employer populations that responded with extremely divergent lists when asked which traits contribute to employability. The skills of communication and teamwork were listed in all studies, but many of the other traits were unique to just one study (Tymon, 2011). This small review of just a handful of studies shows that there is major inconsistency in employer expectation.

TABLE 2

		Abraham and Karns (2009, 953)			
Kreber (2006, 5) Multiple countries – competencies higher education institutions should provide.	Andrews and Higson (2008, 413) Employer and graduate perspectives: multiple sources.	Top 10 competencies identified by businesses in the USA	Top 10 competencies emphasized in the business school curriculum in the USA	Archer and Davison (2008, 7) Employers in the UK.	Comadog (2010, 7) Government in Australia.
• *Be able and willing to continue to learn and be creative* • *Be able to cope with uncertainties* • *Be interested in and prepared for lifelong learning* • **Have acquired social sensitivity and communicative skills** • **Be able to work in teams** • *Be willing to take on responsibilities* • Become entrepreneurial • Prepare themselves for the internationalization of the labour market through an understanding of various cultures • Be versatile in generic skills that cut across disciplines • Be literate in areas of knowledge forming the basis for various professional skills, for example, in new technologies	• *Professionalism* • *Reliability* • *The ability to cope with uncertainty* • *Ability to work under pressure* • Ability to think and plan strategically • **Capability to communicate and interact with others, either in teams or through networking** • **Good written and verbal communication skills** • Information and communication technology skills • *Creativity and self-confidence* • Good self-management and time-management skills • *A willingness to learn and accept responsibility*	• **Communication skills** • Problem solver • *Results oriented* • Interpersonal skills • Leadership skills • Customer focus • *Flexible/ adaptable* • **Team worker** • *Dependable* • Quality focused	• **Communication skills** • Problem solver • **Team worker** • Leadership skills • Technical expertise • **Interpersonal skills** • Business expertise • *Hard worker* • *Results oriented* • *Dependable*	• **Communication skills** • **Team-working skills** • *Integrity* • Intellectual ability • *Confidence* • *Sociability/ personality* • Planning and organizational skills • Literacy (good written skills) • Numeracy (good with numbers) • Analysis and decision making skills	• **Communication** • **Teamwork** • Problem solving • *Initiative and enterprise* • Planning and organising • Self-management • *Learning* • Technology

Highlighted in bold = commonly cited items which appear in all frameworks.
Highlighted in italics = attributes with clear links to personality traits.
Highlighted by underlining = attributes potentially linked to proactive personality.

Comparison of responses regarding which skills contribute to employability (Tymon, 2011).

There is also a marked difference between what a student perceives to be important in comparison to a graduate or faculty member (Burchell, Hodges, & Rainsbury, 2001; Coll & Zegwaard, 2006). It would stand to reason that, with more experience, a student who becomes a graduate and later a seasoned employee would have a more detailed perspective on which skills make a candidate most desirable. Faculty may have a perspective that draws on their own anecdotal experience – the way that the job market was when they were a new graduate, for example – which may or may not be relevant to today's graduate.

In Table 3, survey data of science and technology stakeholders are compared with previous findings of business stakeholders to further illustrate the differences between the stakeholder groups and fields of employment (Coll & Zegwaard, 2006). Each vertical column represents a ranked list of how that particular group perceived that competency as being important for new graduates entering the workforce, one being the most desirable and twenty-four being the least desirable. Although there are some trends, it is important to note that many traits are ranked quite differently, even among the same field or within the same group (Coll & Zegwaard, 2006).

TABLE 3

	Student		Graduate		Employer		Faculty	
	Science (n = 71)	Business (n = 252)	Science (n = 143)	Business (n = 35)	Science (n = 172)	Business (n = 95)	Science (n = 72)	Business (n = 25)
Teamwork and cooperation	6	3	2	6	2	5	5	6
Flexibility	14	11	13	7	10	6	12	11
Relationship building	16	7	12	11	17	15	13	18=
Computer literacy	15	1	5	3	6	10	4	1=
Conceptual thinking	12	18	15	18	12	12	11	9
Technical expertise	13	12	17	17	13	21	6	13=
Organisational awareness	23	22	22	21	23	23	23	23
Concern for order, quality and accuracy	11	14	9	13	5	18	7	13=
Impact and influence on others	22	24	21	22	21	20	20	22
Initiative	2	9	7	5	3	2	8	16
Customer service orientation	19	2	18	2	15	3	18	3=
Developing others	21	20	24	23	22	22	22	24
Directiveness	24	23	23	24	24	24	24	21
Team leadership	18	16	19	20	20	19	19	18=
Analytical thinking	5	10	3	16	4	9	3	5
Self-control	8	17	16	12	14	13	16	18=
Organisational commitment	20	21	20	19	19	17	21	17
Ability and willingness to learn	1	5	1	1	1	1	1	8
Interpersonal understanding	17	19	16	15	16	14	17	12
Self-confidence	7	4	10	4	18	16	15	1=
Personal planning and organisational skills	4	6	4	9	9	11	10	3=
Written communication	9	13	6	10	7	7	2	7
Information seeking	10	15	11	8	11	8	9	15
Achievement orientation	3	8	8	14	8	4	14	10

[1]Burchell *et al.*, 2001; Rainsbury *et al.*, 2002.

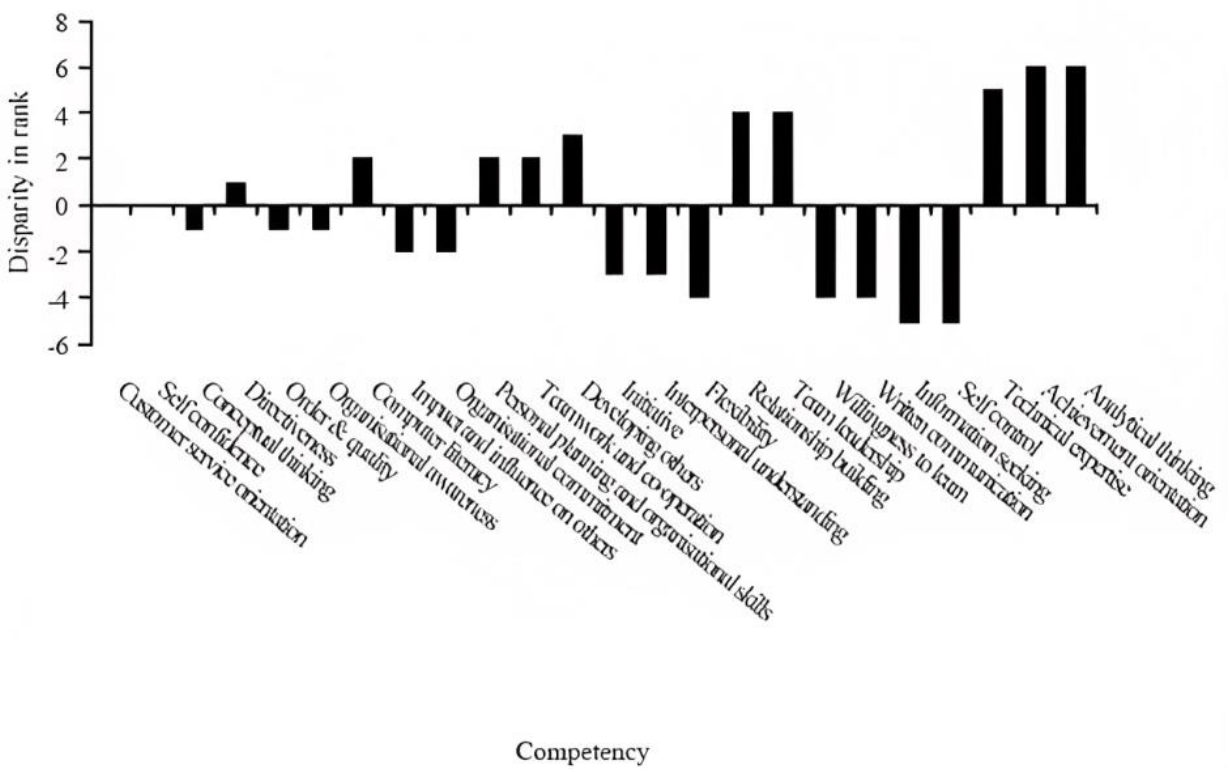
The comparison between science and technology versus business stakeholder rankings of competencies for new graduates entering the workforce in 2006 (Coll & Zegwaard, 2006).

These studies only provide more evidence that there is no set definition of employability because the stakeholder groups differ so much in their expectation of graduates entering the workforce. It has not yet been elucidated exactly how each variable contributes to this inconsistency. One factor is clear – without a more concrete definition of employability, graduates will have a difficult time developing themselves to meet the needs of employers.

Student and Alumni Perspectives

Students and recent alumni have slightly different views on the prioritization of workplace competencies one should have – graduates seem to value soft skills more than students (Figure 3; Rainsbury, Hodges, Burchell, & Lay, 2002). However, studies on both business and science students show that students value "ability and willingness to learn" as the most important trait to possess in the workplace (Coll, Zegwaard, & Hodges, 2002b; Rainsbury, Hodges, Burchell, & Lay, 2002). Of the skills that students find important, they feel that more skill development should occur in the areas of information technology and managing people (Shah, Pell, & Brooke, 2004).

FIGURE 3



Differences between student and graduate ranking of workplace skills (Rainsbury et al., 2002).

Educator Perspectives

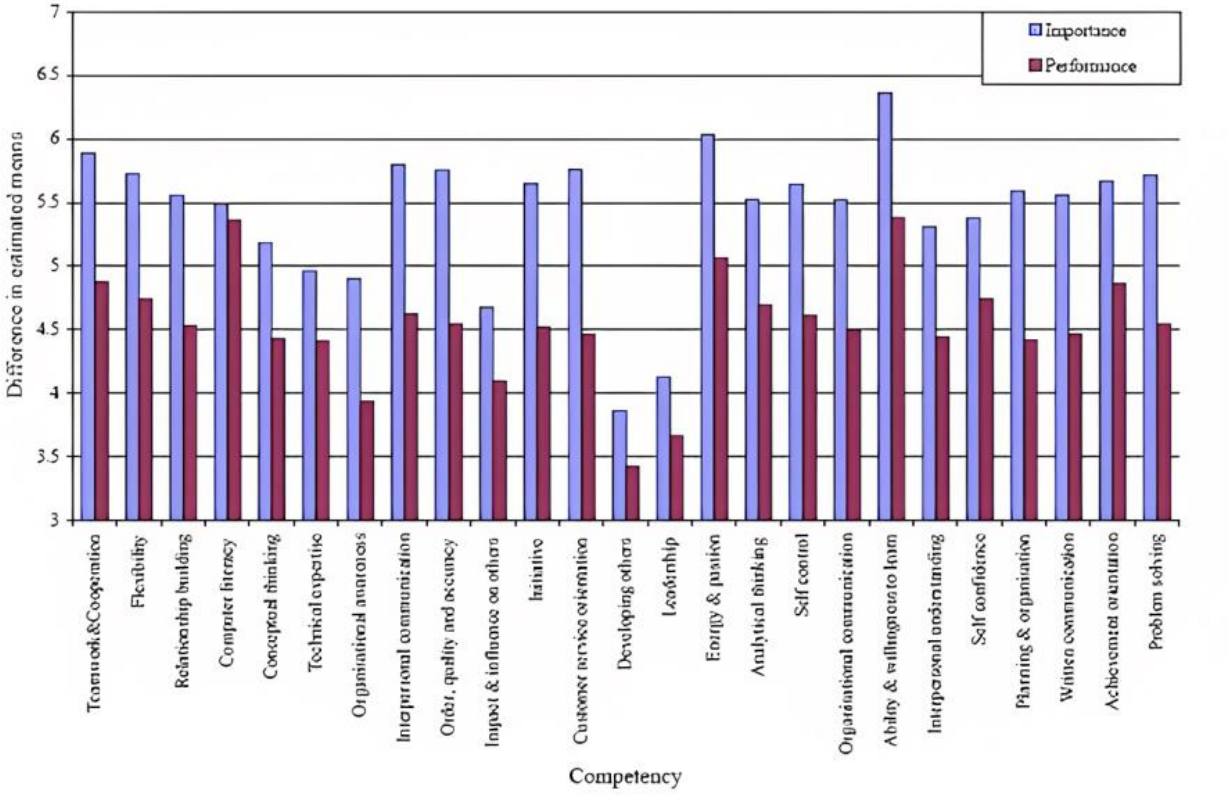
Educator perspectives on student professional skill development seem to parallel those of students. Educators generally report students being strong in many categories and having room for improvement in areas similarly reported by students. One interesting observation by Cuyjet et al. (2009) is that the educators were less confident in the skills training of their Master's degree recipients than the confidence level the students had of themselves. It was not clear which was happening – whether the faculty were merely not recognizing the development of their students over the long stint of their education or if the students were naively assuming they had a much broader base of knowledge in the subject.

Employer Perspectives

Perhaps the most relevant perspective on whether a graduate is prepared for the working world is that of the person who will be deciding to hire him or her. Overall, employers desire an employee who has hard skills equally developed as soft skills and who performs tasks with efficiency and enthusiasm. When asked to rate skills, employers have shown that they value competencies like willingness to learn, cooperation, communication, flexibility, and problem solving over technical expertise (Hesketh, 2013; Hodges & Burchell, 2003). Particularly important seems to be the skill of communication, as it becomes the main subject in a majority of studies (Maes, Weldy, & Icenogle, 1997). The suggested reason for this development is that technical training can always take place 'on the job' to more properly prepare an employee, whereas it is much more difficult to overcome deficiencies in soft skills. Also, with the ever-changing work environment, employers see the value in having employees able to use professional skills to adapt in the face of challenging new responsibilities. Similar results were seen between employers in the business sector and those in the science and technology field (Coll, Zegwaard, & Hodges, 2002a; Hodges & Burchell, 2003).

Employers have expressed concerns over the disparity between the ranking of importance of specific professional skills and how well newly hired graduates are performing these skills (Figure 4; Hodges & Burchell, 2003).

FIGURE 4



Comparison made by employers between the ranking of "importance" versus the "performance" of business graduate competencies in New Zealand (Hodges & Burchell, 2003).

Clearly, there are many differences between what students, educators, and employers consider important in making an individual employable. It is unclear, though, the role that gender and culture play in the trends outlined above, which certainly lends credence to further study of specific populations.

Institutional Initiatives for Integrating Professional Skills Into Curricula

Many institutions of higher learning are incorporating career development or professional skills directly into their curricula in an attempt to send well-equipped students into the workforce and/or as a response to exposed inadequacies (Fallows & Steven, 2000). A large percentage of marketing practitioners (74.2%) indicated that curricula should include a professional skills and career development focused course (Kelley & Bridges, 2005). In another study, student data indicate that students find these courses as teaching new and valuable skills that will help them with future courses and careers; faculty also report that the quality of student work, particularly in research projects, improves following the incorporation of this type of course into the curriculum (Ashraf, Marzouk, Shehadi, & Murphy, 2011). It is suggested that courses should include a graduated approach to skills (i.e., increasing in difficulty as students' abilities grow) and using authentic assessments in order to model professional environments (Walton & Baker, 2009; Wood, 2009). Models for the incorporation of professional, translatable skills into curriculum are reviewed in Bennett et

al. (1999) and Dahlgren et al. (2006). In a recent study by Landrum et al. (2010), suggestions are provided from psychology student alumni as to which skills could be reinforced by some college-level activities integrated into the curriculum (Table 4).

TABLE 4

Mean Importance Ranking	Skill or Quality	College-Level Activities Suggested
1 ($M = 2.74$)	Work well with others	• Group projects • Group projects that are representative of the workplace • Group work
2 ($M = 3.80$)	Manage several tasks at once	• Taking several classes and doing activities • Different classes with different deadlines, school activities, study groups • Having several classes at once
3 ($M = 4.00$)	Possess self-discipline, including punctual attendance and dependability	• Being on time for class and doing the reading • No late work accepted • Conforming to due dates, limiting absenteeism
4 ($M = 4.23$)	Apply knowledge from formal educational experience	• Core classes in major field • Conceptual questions on tests or exams • Role-plays are nice, but they're not real; be able to relate to real-world experiences better
5 ($M = 4.33$)	Demonstrate self-motivated learning	• Encourage students to develop personal interests; not to be swayed by politics • Do more than you have to; don't just worry about the grade; look for ways to improve, for yourself • The professor introduces the topic; encouraging interest in his or her presentation almost like showing a person how to do something
6 ($M = 4.45$)	Motivate oneself to function at optimal levels of performance	• Classes on self-esteem, self-drive; using the organization to meet personal vision • Get into a mentoring relationship with a professor; challenge yourself with hard classes • Set a level of qualities for student to write a paper or report (scale system/rubric)
7 ($M = 4.64$)	Write formal reports, business correspondence, informal notes, and memos	• Honors project—research project, write paper, defend paper, submit for publication • Incorporate writing projects into every class and course • Write and practice writing; take a technical writing class. Research methods is a very important class
8 ($M = 4.69$)	Possess the ability to work without supervision	• Most work in class was independent • Doing hard-core library research • Group activity where students educate each other
9 ($M = 4.86$)	Demonstrate highly developed social skills	• Involvement in activities, organizations, and groups • Provide personal feedback to professors; writing and presenting report findings to groups • Classes on political savvy and organizational survival skills
10 ($M = 4.88$)	Demonstrate initiative, motivation, and perseverance	• Research and class work provided opportunities to demonstrate these • Class projects, papers, class presentations • Anyone who graduates has this

Note. To be included in the table, college-level activities listed were reported by at least 15% of respondents providing open-ended responses ($n = 64$). Means represent the average rank order of the item as provided by respondents.

Responses from psychology alumni in response to the open-ended question of which skills are most important for success in the workplace and suggestions for activities to help develop those skills (Landrum et al., 2010).

Capstone Courses

Emerging graduates are entering the workforce with a spectrum of comfort and expertise in professional skills and employability levels. One way to disseminate workforce preparedness training is through a capstone course. A capstone course, an elective career course, can be effectively used as an upperclassman experience introducing students to the expectations and demands of working life as well as to help them develop skills necessary to get a job, such as creating a resume (Wood, 2004). These courses emphasize the process of learning rather than modules of defined course content. Many capstone courses are designed to specifically develop the "soft skills" of students, such as communication, critical thinking, data analysis, and ethical responsibility (Johnson & Halabi, 2011; Kerrigan & Jhaj, 2007). Capstone courses "cap" the college experience by asking the students to reflect on past experiences while developing competencies for future employment – encouraging the student to gain both personal and professional growth (Goldstein & Fernald, 2008; Johnson & Halabi, 2011). The power of the capstone is in creating a safe transition for graduates. For instance, a study of software engineering students participating in a sixteen-week capstone course wrote guided journal entries that sounded unsure and insecure in week one and strongly confident in their abilities to problem solve and work as part of a team by week sixteen (Dunlap, 2005).

Service-Learning

Service-learning is true experiential education and provides students with an opportunity to learn skills and gain knowledge while providing a valuable community service. These projects can take place in any course of study and can take many forms. Service-learning projects reap the obvious benefit of students developing a strong conviction to serving their community, but interestingly also include positive changes to life skills development such as multicultural appreciation, cooperation, conflict resolution, and critical thinking (Sax & Astin, 1997). Recently research has focused on the factors of service-learning experiences that contribute to the development of professional skills such as cooperation, problem solving, communication, and leadership. A recent study found that more out-of-classroom time, cohesive group dynamics, increased in-class reflection time and contact with beneficiaries all positively influence the development of professional skills (Lu & Lambright, 2010). It has been suggested that by connecting with the recipients of services, students create meaning in previously intangible skill development assignments.

Internships

Internships expose students to the daily details of an occupation for the purpose of career exploration. The development of professional skills is a by-product of this experience as seen in Table 5.

It has been suggested that integrating classroom and work-based learning in today's education is essential for developing higher level learning (Tynjala, Valimaa, & Sarja, 2003). Tynjala et al. (2003) also suggest that without practice, theory learned with a more "traditional" pedagogy of classroom instruction limits not just learning of that particular skill or topic, but also the ability of that student to understand how that learning relates to the world at large. Internships may be very appropriate and helpful to students in fields like psychology where graduates have difficulty translating their analytical knowledge in to real-life situations (Borden & Rajecki, 2000).

Educators agree with the student perspective that the experience gained from participation in an internship is important – however, practitioners (the employer stakeholder group) found internship experience to be significantly less important (Kelley & Bridges, 2005). It seems that the student and educator perspective matters little to the person choosing their next employee. This may become relevant as educators play the role of career advisor; without a realistic view of what employers want it may not be effective for educators to advise students on internship opportunities.

TABLE 5

Type of Skill	Took Internship	No Internship	Percentage Point Difference
Leadership	38%	26%	12%
Written communication	48%	36%	12%
Verbal communication	35%	24%	11%
Quantitative	40%	30%	10%
Critical thinking/problem solving	47%	40%	7%
Working in teams	37%	32%	5%
Time management/professionalism	40%	37%	3%
Information gathering	55%	54%	1%

Student ranking of skills that they report performing "extremely well" and their internship status (Stone et. al. 2012).

Future Outlook for Professional Skills Training

The outlook for professional preparation for undergraduate students will reflect the changing workplace as the population ages, becomes more diversified, and technologically more integrated. New jobs will require a hybrid set of skills that will draw from interactive skills and field-specific expertise (Elias & Purcell, 2004). Trends in the workforce will potentially shift employers to begin valuing cultural competence, adaptability to changing work environments, and self-management/independence (Gow & McDonald, 2013).

METHODOLOGY

Purpose

It is usually assumed that most students attend college in order to prepare themselves for future careers, no matter the field. The curriculum includes technical training, which is more specific to the field of study, as well as professional development of the social accoutrements necessary to be successful in the workplace. Recent studies suggest a disparity regarding professional skills between employers' expectations and students' preparation. Hence, this study aimed to examine the faculty and staff perceptions of professional preparation at a Small Liberal Arts University in the Northeastern United States to explore whether improvements should be made in student professional skills development.

Research Questions

The overall inquiry that guided this study was toward answering this central question: How well are students being prepared for their future professional careers during their undergraduate education?

The following sub-questions provided focus and direction:

1. How closely do specific professional skills correlate to professional success?
2. How does the average student rate in proficiency for each of the specific professional skills?
3. How well does the college experience at the Small Liberal Arts University prepare students for professional success?
4. How does the liberal arts educated student compare to other students, specifically their abilities in the specific professional skills categories?
5. How do specific experiences contribute to the development of professional skills in the college graduate?

Sample

Faculty and staff at a Small Liberal Arts University in the Northeastern United States were asked to be anonymous participants in this study. The participant group (n=26; 10 males and 16 females) comprise approximately 10% of all faculty and staff at this institution. Faculty and staff were notified of this study with an e-mail sent to the faculty and staff listserv inviting them to participate. The participants could have been either faculty or staff from any department or program on campus and were asked only to identify themselves in terms of gender, age, and number of years worked at this institution. The participants range in age from 24 to 66 years of age and have worked at the institution from 1-42 years.

Data Collection and Analysis

Data consisted of answers to questions collected via a survey, which was sent via e-mail and returned via campus mail to protect participants' identities. Survey participants were asked to rate the importance of a list of 10 professional skills on a scale of 1 to 5. Skills listed included: communication (oral and written), organization, cooperation/collaboration, problem solving, work ethic, flexibility/adaptability, leadership, quantitative skills/math, technological aptitude, ethics/morals. The skills were listed in random order. Participants were asked to rate in general how correlated each of these skills are to professional success on a scale ranging from 1 (not at all related) to 5 (very closely related). Also asked was a similar rating of the same list of skills regarding students' abilities on a scale of 1 (not at all well skilled/well below average) to 5 (extremely skilled/well above average). Faculty/staff participants were asked to reflect upon the "average student" in answering the question of proficiency. Participants were asked to rate how the college experience at their particular institution was preparing students for professional success. Their responses could be minimal, below average, average, above average, or superior preparation. Lastly, participants were asked to rate how social experiences parallel to their college experience contributed to their development of professional skills. Experiences included: internship, going abroad, clubs/groups, athletics, volunteering, fraternities/sororities, and campus job. These experiences were rated 1 (minimal contribution) to 5 (huge contribution). A comment area was provided at the bottom of the survey with an invitation for participant input. The complete survey is included in Appendix 1.

Each rating for the questions had values assigned from 1 to 5. Means were calculated by adding responses for all participants and dividing by the number of participants. Differences in means were calculated by performing 1000 randomizations of the data and a 2-tailed test using StatKey software (http://lock5stat.com/statkey). Differences were deemed significant if $p<0.05$.

FINDINGS

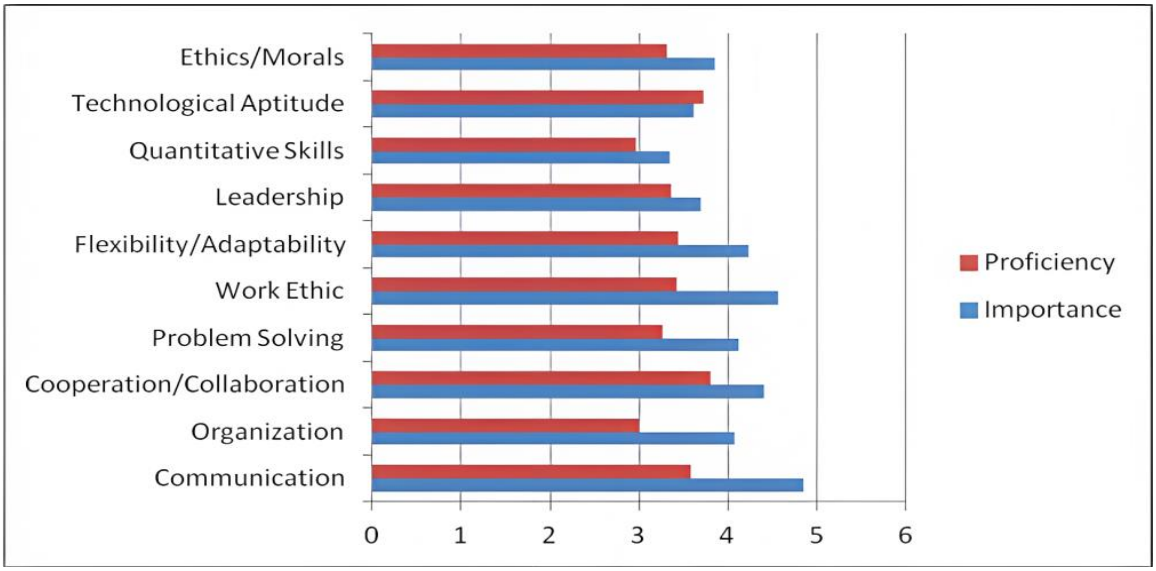
The Importance of Professional Skills

The means for faculty/staff perceptions of the importance in professional skills are shown in Figure 1 (blue bars) on a scale from 1 (not at all related) to 5 (very closely related). The means of importance ranged from 3.35 to 4.85; overall the participants thought that all competencies were at least somewhat related to professional success. Participants thought that communication (4.84) and work ethic (4.56) were most closely related to professional success of all the skills listed, while quantitative skills (3.35) were rated the least important for professional success.

Faculty/Staff Perception of Students' Proficiencies

Participants were asked to respond to how well students rate in proficiency for each of the professional skills on a scale of 1 (well below average) to 5 (well above average), as seen in Figure 1 (red bars). The means of proficiency ranged from 2.96 to 3.81. Participants generally perceived all skill proficiencies to be average (3) or higher except for quantitative skills, which students are slightly below average (2.96). No mean proficiency ranked at 4 or above. Student proficiencies are ranked highest in cooperation/collaboration (3.81) and technological aptitude (3.73). Students are perceived to be least skilled in the categories of quantitative skills (2.96) and organization (3).

FIGURE 5



Ratings for relative importance of professional skills regarding professional success and the proficiency of the average student for these skills as perceived by faculty and staff.

Differences Between Importance and Proficiency

Differences in means were calculated for the similar measurements of the faculty/staff perceptions of professional skills importance and professional proficiency. The relative importance of the skills were higher than the students' proficiencies in all categories except for technological aptitude, in which case the students' proficiencies were higher (Table 1). The biggest differences between importance and proficiency were seen in the skill categories: work ethic, organization, and communciation. In these categories, the importance of the skill was perceived as being far higher than the students' proficiencies. Students had little diffference between relative importance and proficiencies in the categories of quantitative skills and leadership – in addition to being proficient in technological aptitude above and beyond its value of relative importance.

TABLE 6

SKILL	DIFFERENCE BETWEEN MEANS OF IMPORTANCE AND PROFICIENCY
Ethics/Morals	0.526
Technological Aptitude	-0.115
Quantitative Skills	0.385
Leadership	0.332
Flexibility/Adaptability	0.791
Work Ethic	1.135
Problem Solving	0.846
Cooperation/Collaboration	0.592
Organization	1.077
Communication	1.269

Differences between the mean importance and mean proficiency for each professional skill.

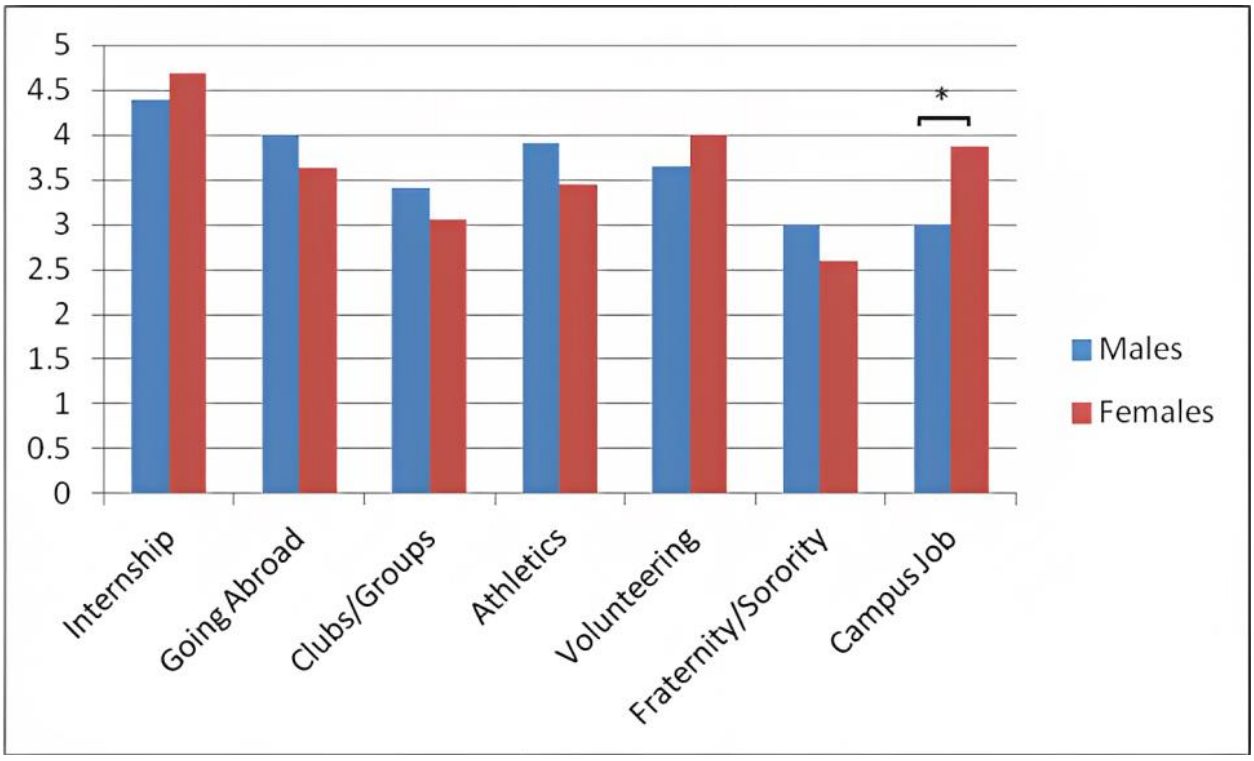
Gender Differences in the Perception of Importance and Proficiency

Male and female participants significantly differed on their perception of importance for the professional skill of organization, for which males found organization to be much more important than females (p=0.034). For all of the other skills listed, male and female participants had similar opinions. For proficiencies, male faculty/staff participants thought that students have a significanctly higher proficiency in problem solving skills (p=0.038) than the female participants. In the category of ethics/morals, males also thought that students have signficantly higher proficiency (p=0.021). One female participant chose not to answer the question of proficiency of ethics and commented "no way to rate" for this question. In all other skill categories, male and female participants perceived students' proficiencies similarly. There was no clear trend as to one gender consistently giving higher or lower scores for any question.

Perception of the Influence of Social Experiences

Scores for experiences that contribute to the development of professional skills ranged from 2.81 to 4.58 (Figure 2). The highest score was given to internships (4.58) and lowest to fraternity/sorority participation (2.81). All other experiences were in the "3" range and had "somewhat of a contribution" to the development of professional skills. Male and female participants generally responded similarly when assigning values, however, for the category of campus job, females (red bars) thought that the experience was significnatly more important to the development of professional skills than males (blue bars; *p=0.036).

FIGURE 6



Ratings for relative importance of college social experiences regarding professional success as perceived by male and female faculty and staff (*p=0.036).

DISCUSSION

Studies suggest that the liberal arts training that focuses on "soft skills" creates highly qualified job applicants by giving graduates vital skills for a changing world (Scheetz & Stein-Roggenbuck, 1994). Technical skills may equip a graduate for an entry-level, specific job but it has been suggested that the soft skills or "transferable" professional skill set may be more valuable due to the changing nature of jobs and the current economic conditions (Are they really ready, 2006; BHEF, 2003; Kerr & Runquist, 2005; Shah, Pell, & Brooke, 2004). Faculty/staff participants in this study found all of the professional skills surveyed at least "somewhat important" for professional success. Communication (4.85) and work ethic (4.56) rated highest in importance from the perspective of faculty and staff. These results are not surprising in that communication and motivation or work ethic consistently rate high in surveys given to employers (Are they really ready, 2006; Coll, Zegwaard, & Hodges, 2002a; Maes, Weldy, & Icenogle, 1997) and to students (Coll, Zegwaard, Hodges, 2002b; Rainsbury, Hodges, Burchell, & Lay, 2002; Shah, Pell, & Brooke, 2004). Although all skills are considered "somewhat important" for professional success, quantitative skills (3.35), technological aptitude (3.62), and leadership (3.69) were scored lowest by faculty/staff participants regarding their importance for a successful professional career.

This study was conducted at a small liberal arts institution where the focus is more on the development of skills for lifelong professional success rather than technical or field-specific curriculum. Faculty/staff participants in this study felt that this specific liberal arts college was doing an above average job at preparing students when compared to other institutions (3.85). This value does not seem to be reflective of the participants' perceptions of all students, rather on the opportunities offered by the institution for students who choose to utilize them. One participant commented: "Students who take full advantage of all the opportunities that [the Small Liberal Arts University] offers both in and out of the classrooms can be very well prepared for professional success. Those who coast through are not." Another participant echoed this: "…with regard to how [the Small Liberal Arts University] prepares students, I think the answer depends very much on the student – you get out what you put in!"

The participants reported the highest perception scores for students' skills to be cooperation/collaboration (3.81) and in technological aptitude (3.73). These skills are a direct reflection of the type of education a liberal arts institution provides and the type of work these schools ask the student to perform. No skills score above a level of "4" suggesting that there is room for improvement in the professional skills training of students; participants did not think the students had mastery of any particular skill. Interestingly, since the relative importance of technological aptitude was so low, a proficiency level as low as 3.73 shows that students are perceived to excel in this category (Table 1). The only skill scoring less than the "average" assignation of "3" was quantitative skills (2.96). The definition of "quantitative skills/math" was never given, so the underlying reasons for the low score need to be further explored. The largest differences between the perceptions of the importance and proficiency of skills were in the categories of: communication (1.27), work ethic (1.14), and organization (1.044). These disparities suggest that these three categories are the skills sets where students are performing least well – and is supportive of other studies identifying these competencies as those which students lack (HR Policy Association, 2010).

The means for perceptions of importance or proficiency were not consistently higher or lower for a specific gender; however, this data has some differences in how men and women perceive students' skills. Men and women differed in their perceptions of the importance of organization – men found organization to be significantly more important than women ($p=0.034$). Men and women also differed in how they perceived students to be proficient in problem solving and ethics/morals. Men thought that students had more proficiency in each category ($p=0.038$ and 0.021, respectively). Few studies have been done to elucidate if there is a gender effect or gender conditioning in the field of professional skill perception. A study by McMurtrey et al. (2008) suggests that women and men evaluate job skills differently, but in their study female participants rated most of the professional skills higher than males – the opposite of our data. It should be mentioned that comparison of these studies is difficult as the definitions of skills is subject to interpretation by the participants even when a definition is given for particular skills. More research in this area of gender conditioning regarding professional skill value and development is warranted.

When asked to rate social experiences for their perceived effect on professional skills, internships were rated to have a very important contribution (4.58). The perception of faculty/staff participants that internships are important for skill development is aligned with views of students in another study and divergent from the opinions of employers (Kelley & Bridges, 2005). This data should be further explored because no matter how much a particular skill is valued by students and faculty/staff, the employer must find it to be valuable in order for the graduate to be employable. Interestingly, campus job did not rate nearly as high as internship. One explanation is that campus jobs are often clerical and unrelated to one's field of study; although to some people an internship is similar to a campus job and one would be learning skills in the field as part of their work. This difference between internship and campus job could be an artifact of the open-ended nature of the question or could be due to the participants being from different programs on campus. Men and women differed significantly in their perception of the importance of campus job ($p=0.036$), with females perceiving campus job as being more for important for the development of professional skills. The least important social experience was the participation in fraternity or sorority activities (2.81).

LIMITATIONS

It is difficult to compare these results to the current body of literature. First, the terms for the professional skill sets were not defined in this study. This allowed open interpretation of the faculty/staff participant and could have been subject to their assumptions based upon their own experiences or upon their program of study. For example, one study reports the second most commonly identified deficiency by employers is leadership skills (Are they really ready, 2006). In contrast, the relative rankings of importance by employers in another study indicated that leadership was the most important of sixteen professional skills by 21% of the participants in a study of managers (Maes, Weldy, & Icenogle, 1997). These studies have different definitions of what "leadership" entails and therefore are measuring two different things. Depending on the faculty/staff's perception of how these skills are embodied by student activities (i.e., how skills are represented in action), their opinion may differ between individual participants. (Data on the program or field of study was not collected in this study due to the Institutional Review Board regulations at this institution.) It is known that programs value skills differently (Coll & Zegwaard, 2006), so it is difficult to draw generalizations from survey results that could come from only a small subset of the population's programs on campus.

CONCLUSION

While many studies have addressed the perceptions of students or employers, only few of them explored the perspectives of educators who prepare students for professional careers. Since faculty and staff are the people training students, it is important that they understand the expectations of employers. They also must know the prioritization of the student on professional skill development in order to gain the investment of the students. This study found that professional soft skills are seen as at least somewhat important to professional success by educators, with particular importance attached to the skills of communication and work ethic. This corroborates current findings in the literature. At this particular institution, faculty/staff participants thought that there was room for improvement for students for all professional skills, with communication, work ethic, and organization being the skills most lacking. Some interesting gender differences emerged from our findings, including men perceiving organization to be a more important skill than women. Men also thought that students were significantly more proficient in problem solving and ethics/morals than women. Overall, the participants thought that this liberal arts institution prepared students slightly above average when compared to other institutions of higher learning. Regarding social experiences and how they contribute to professional development, men and women differed on their perception of the importance of campus job, with women finding campus job to be significantly more important. Lastly, this study found that faculty/staff participants perceive an internship as the most important social component contributing to professional skill development and Greek involvement to be

the least important. Further studies are needed to explore how gender and specific programs of study affect the perception of professional skills.

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APPENDIX 1

RESEARCH SURVEY

Please print, complete, and send back via stamped USPS mail to the investigators of this study.

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

I identify myself as (check one):
___ Male ___ Female ___ I prefer not to answer
I have worked at [the Small Liberal Arts University] for ___ years
My age is: ___ years

Please, mark the box that most closely matches your opinion for each question asked.

1. How closely are each of the listed professional skills correlated to a person's professional success?

	not at all related		somewhat related		very closely related
PROFESSIONAL SKILLS	1	2	3	4	5
oral and written communication					
organization					
cooperation/collaboration					
problem solving					
work ethic					
flexibility/adaptability					
leadership					
quantitative skills/math					
technological aptitude					
ethics/morals					

2. How does the average student rate in proficiency for each of these professional skills?

	not at all skilled/well below average		somewhat skilled/average aptitude		extremely skilled/well above average
PROFESSIONAL SKILLS	1	2	3	4	5
oral and written communication					
organization					
cooperation/collaboration					
problem solving					
work ethic					
flexibility/adaptability					
leadership					
quantitative skills/math					
technological aptitude					
ethics/morals					

3. In general, how well do you think the college experience at xxx prepares students for professional success?

MINIMAL PREPARATION	BELOW AVERAGE PREPARATION	AVERAGE PREPARATION	ABOVE AVERAGE PREPARATION	SUPERIOR PREPARATION

4. How do you think the following experiences contribute to the development of professional skills in the college graduate?

	none or minimal contribution		somewhat of a contribution		huge contribution
EXPERIENCES	1	2	3	4	5
internship					
going abroad					
clubs/groups					
athletics					
volunteering					
fraternities/sororities					
campus job					

Please, write any additional comments you would like to add on the back of this page. Your input is highly valued and appreciated!