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Andrews University

School of Education

EMPLOYABILITY SKILLS IN THE UNDERGRADUATE BUSINESS
CURRICULUM AND JOB MARKET PREPAREDNESS:
PERCEPTIONS OF FACULTY AND FINAL-YEAR
STUDENTS IN FIVE TERTIARY INSTITUTIONS

A Dissertation

Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

By

Patrick Antonio Williams

July 1998

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ABSTRACT

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ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: EMPLOYABILITY SKILLS IN THE UNDERGRADUATE BUSINESS CURRICULUM AND JOB MARKET PREPAREDNESS: PERCEPTIONS OF FACULTY AND FINAL-YEAR STUDENTS IN FIVE TERTIARY INSTITUTIONS

Name of researcher: Patrick Antonio Williams

Name and degree of chair: Paul S. Brantley, Ph.D.

Date completed: July 1998

Problem

For several decades educators, researchers, and employers have expressed concern about the quality of business graduates that are entering the workplace as entry-level professionals. The major concern of these stakeholders is that many students who are leaving tertiary institutions lack the necessary employability skills needed for career success.

Therefore, the purpose of this study was to investigate if undergraduate schools of business are adequately preparing their students for the workplace through the incorporation of employability skills throughout the curriculum. To achieve this purpose, the study measured the perceptions of both final-year undergraduate business students

and their professors to determine the extent to which they believe employability skills are important for future success in the workplace, the extent to which those skills are integrated in the curriculum, the degree to which students possess those skills and the strategies used to integrate those skills in the undergraduate business curriculum.

Method

The population for this study consisted of 293 undergraduate students and 45 business school professors from five tertiary institutions in the states of Michigan, Indiana, and Tennessee. The study employed the survey research method to ascertain from students and their professors their perceptions of the extent to which employability skills are integrated in the undergraduate business curriculum. The data were analyzed using descriptive statistic and the *t*-test of two independent means.

Results

Eight hypotheses were analyzed to ascertain from the students and professors their perceptions of employability skills in their undergraduate business curriculum. The findings suggested that students and faculty within each of the five institutions perceived employability skills to be important across the business core classes and the majors.

The students and faculty within the five schools differed on the degree to which most of the skills were integrated, and the degree to which the students possessed the skills. Findings from the study also revealed that the institutions relied heavily on the lecture method and to a lesser degree group work to integrate employability skills across the curriculum.

Conclusion

Based on the findings from the study, it seems that the five institutions are aware of the need for their students to be technically competent, as well as equipped with the necessary employability skills needed for success in the workplace. The institutions are making some effort to integrate most of the skills across the undergraduate business curriculum. However, greater effort needs to be made of experiential learning strategies that will make the classroom experience more reflective of the workplace.

To my parents, Dudley and Elaine Williams,
my wife Daphne, and my children, Patrick II and
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CHAPTER I

INTRODUCTION

Background of the Study

For several decades educators, researchers and employers have expressed concern about the extent to which business graduates from American tertiary institutions are being prepared for the world of work (Gordon & Howell, 1959; Kephart, McNulty, & McGrath, 1963; Pierson, 1959). The expression of such concern has become more frequent since the 1980s (AACSB, 1994, 1994-1995; Bikson, 1996; Green & Seymour, 1991; Levenburg, 1996; Porter & McKibbin, 1988; West & Aupperle, 1996). Findings from these and other studies (Carnevale, Gainer, & Meltzer, 1990; U.S. Department of Labor Report, 1991) support the complaints made by employers that entry-level workers do not have a full grasp of basic skills and the necessary competencies for superior performance in the workplace.

In addition to literacy skills, employers are dissatisfied with the entry level worker's inability to think critically and creatively, to work effectively with others, to negotiate effectively, to take the initiative when confronted with ambiguous situations, and to display professional and social responsibility (Candy & Crebert, 1991; Cappelli, 1992; Carnevale et al., 1990). Furthermore, with the advancement in technology, many

corporations' organizational structures have flattened, allowing for more decisions to be made at the point of service. Consequently, the worker is expected to interact more closely with others in a team setting, to spend more time on the computer, and to rely less on supervisory staff for guidance. In order for the worker to be comfortable in this environment, he/she is expected to have good interpersonal skills, good leadership skills, and high self-esteem and self-development skills (Amini, 1995; Carnevale et al., 1990; Green & Seymour, 1991).

Another important competence that is lacking in many entry-level professional workers is the ability to critically assess the skills they possess, identify the skills and knowledge that they lack, and take the necessary steps to learn those skills (Candy & Crebert, 1991; Cappelli, 1992; Farnham, 1993; Mandt, 1982; Sheetz & Stein-Roggenbuck, 1994; Theeke, Sprague, & Como, 1993; Oneil, Allred, & Baker, 1992). If tertiary institutions are unable to develop such skills in their students, it is unlikely that they will be able to acquire and exhibit other important workplace competencies such as personal and social responsibility skills, interpersonal skills, and thinking and problem-solving skills. This presents major problems for those industries that rely on a college-educated workforce to give them the competitive edge they need to compete in the global economic environment.

Statement of the Problem

This study focuses on the integration of employability skills in the undergraduate business curriculum and the perceptions of students and their faculty regarding the

importance of those skills in preparing the students for the job market. It looks at those employability skills employers consider essential as identified by the U.S. Department of Labor's SCANS Report (1991) and the results of the study conducted for the American Society for Training and Development by Carnevale et al. (1990). The study addresses the following research questions:

1. What employability skills do final-year business students and faculty perceive to be important?
2. What employability skills do final-year business students and faculty perceive were integrated throughout the business curriculum?
3. Is there any significant difference in the perceptions of students and their professors within each of the four institutions regarding the skills the students perceive they possess and the skills professors perceive the students possess?
4. What are the strategies students and faculty perceive were used to integrate employability skills in the curriculum?

Purpose of the Study

Whereas most studies on employability skills have emphasized the weaknesses and strengths of entry-level workers from the employer's perspective (Gessner, 1995), little research has been done to ascertain the perceptions of that segment of the workforce with bachelor degrees. This kind of information would be very useful considering that of the 20 million college graduates who were full-time workers in the labor force in 1993, 64% of them were workers with bachelor's degrees (Hecker, 1995). Furthermore, since

the U.S. Department of Labor's SCANS report, researchers in the area of job readiness skills have focused most of their intellectual energy on the level of preparedness of graduates from secondary and vocational schools who are directly entering the job market. While this type of information is important, it is also imperative that employers, college-bound students, educators and parents be aware of how seriously 4 year colleges and universities are preparing students for the transition from the academic environment to the world of work.

Another justification for conducting this study is that whereas most of the research on the undergraduate curriculum seems to focus on only some of the seven major employability skills groups identified by the ASTD study (Carnevale et al., 1990; Oneil et al., 1992) this study focuses on skills from all seven groups. Furthermore, current literature is sparse on the teaching strategies being used by business schools faculty to integrate employability skills in the curriculum. This study makes a significant contribution by researching this area.

Theoretical Framework

A theoretical framework explains the relationships and connectedness of variables in a study (Creswell, 1994). The framework used to explain the relationships between variables in this study was drawn from liberal education theory and social systems theory (Beane, 1995; Betts, 1992; Bishop, 1994; Heckman, 1993; Hersh, 1997; Kalleberg & Berg, 1987; Kanther, 1986; Maritain, 1962). Liberal education theory and social systems theory are relevant for the following reasons: (1) the changing nature of expertise, work,

and the organization of work requires workers who are liberally educated and trained in job-specific skills (Bikson, 1996; Lynton, 1991); (2) the quality of the workforce is what determines how successfully American corporations compete in the global marketplace, and (3) dramatic changes in organizational structure from the command and control paradigm to a more decentralized structure make the current college curriculum inadequate in preparing professionals for entry-level positions (Kanter, 1983; Montross & Shinkman, 1992). Also, the college curriculum must be flexible to address issues such as competition, corporate downsizing, technology, and the influx of minorities in the workplace. These issues are creating tensions that provide new challenges for the American corporation as it approaches the next century (Deal & Kennedy, 1982; Heckman, 1993; Kanter, 1983).

As the American society braces itself for the 21st century, it has steadily shifted its means of production from that of a goods-producing economy to a service-producing economy (Office of Educational Research and Improvement, 1993). This economic shift coupled with the increased availability of technology is having substantial impact on the workplace (Alfthan, 1985). Employers are no longer able to manage within the command/control paradigm. Instead, decisions that were once left up to middle management are being decided by entry-level workers (Carnevale et al., 1990; Dichter, 1991). Consequently, employers are asking the colleges and universities to integrate employability skills and liberal arts values in the undergraduate curriculum (LaMarco & Taylor, 1994; Porter & McKibbin, 1988; Ridley & Gallaer, 1993). Such a request is not different from what the French philosopher Jacques Maritain states as the essence of

liberal education. Maritain argues that the primary aims of liberal education are to form the whole, complete person. According to Maritain, education directed toward wisdom, centered on humanities, aiming to develop in people the capacity to think correctly and to enjoy truth and beauty, is education for freedom, or liberal education (Maritain, 1962).

It is logical to assume that the employer who seeks to find employability skills in his or her worker can find such qualities in the person who is liberally educated (Gustafson, 1995; Smith & Kleiner, 1988). For this to materialize, it is fair to assume that the tenets of liberal education and job-specific skills can be successfully fused in the curriculum.

However, for this fusion to take place, the curriculum must be conceptualized as an open system that is capable of responding to the social, technological, and economic forces that are altering the social structures of the society (Heckman, 1993; West & Aupperle, 1996). The business schools need to make their product offerings more accessible to those learners who wish to improve their skills but are not in close proximity to the schools. The undergraduate business curriculum can reflect this model if it is developed on social systems theory. According to Hanken (1981), social systems theory involves human beings interacting and communicating ideas, problems, and differences among individuals or groups acting on their own or representing organizations. Sirgy (1989) proposes that an approach to planning a social system should include scanning the environment to identify an unfulfilled need, setting objectives to meet the unfulfilled need, and integrating the components into a coordinated/unified whole (see Figure 1). Senge (1990) makes the point that the increase in information and

complexity of life requires a systems theory approach to pierce through the myriad of challenges. He states that a systems approach would "provide a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static 'snapshots.' Systems thinking is a sensibility for the subtle interconnectedness that gives living systems their unique character" (p. 27). A systems theory approach to curriculum development could be made possible if curriculum planners and educators were to actively work in a more open environment to improve the curriculum. Such an environment requires an active flow of communication, as well as collaboration among the schools, their students, alumni, employees, and employers. Alfthan (1985) stresses this point by arguing for training and research institutions to have a stronger relationship with business so that they can better predict future skill requirements and thereby play a more proactive role in the changing work environment.

The open systems model displayed in this framework is a depiction of what can be accomplished if business school educators and the relevant stakeholders within academia and the external environment can engage in more active communication. Bikson (1996) would like to see this relationship move beyond mere communication, to one which he describes as "innovative partnership" (p.19). He suggests that this type of partnership should develop around closer university/industry cooperation, stronger mutual incentives, and more government and foundation funding for inter-institutional collaborations.

The model presented in Figure 1 depicts a systems approach to curriculum development that involves internal and external forces interacting to strengthen the

curriculum from mere academic offerings to one that infuses the academic skills, subject specific skills, liberal arts training and employability skills, to form an integrated whole. It depicts the relationship of the type of academic exposure given to the student and job market preparedness. For instance, a narrowly focused academic exposure does not prepare the student for the 21st-century work environment that is influenced by rapid technological, social, and economic forces. Also, a curriculum that only provides the academic component with the technical skills needed to perform job-related tasks is inadequate to help the entry-level worker make an immediate contribution to his/her employer. A curriculum designed to incorporate the academic, technical, and liberal arts components in a compartmentalized structure may provide the worker with some of the tools needed for job performance. Yet, the transition from the classroom will be difficult because the student was not equipped with the necessary employability skills in a setting that reflects the work environment. However, the curriculum that integrates the academic core, technical skills, liberal arts and employability skills in a contextualized setting will better prepare the student for the workplace.

External Environment

Figure 1. Open systems model.

There is an explicit assumption in the model (see figure 1) that for the student to be adequately prepared for the workplace, the curriculum must reflect the demands and challenges posed by the environment. Also, there has to be fusion within and across the liberal arts, the business core and the courses that comprise the business majors if the student's education is to be a meaningful experience.

Significance of the Study

Over the past 2 decades a significant amount of attention in the form of research and training has been directed in the area of employability skills and the extent to which secondary and vocational school graduates and attendees possess these skills. The much-cited U.S. Department of Labor study (1991) entitled *What Work Requires of Schools: A SCANS Report For America 2000*, focused exclusively on those skills employers stated were necessary requisites for employment and the extent to which high-school students are able to meet those requirements (Oneil et al., 1992). Also, studies done by Carnevale et al. (1990), for the American Society for Training and Development, and Mehrens (1989), for the State of Michigan, have highlighted the skills employers consider necessary for the worker to be productive. However, important information on how prepared college graduates are for the job market is lacking.

The U.S. Department of Labor's Bureau of Statistics (1996) suggests that the fastest growing segment of the labor force between 1994-2005 will be the professional and technical occupations. In 1992, of the 30 million college graduates who were in the labor force, over 40 % held jobs in professional specialty occupations such as

accounting, business management, and computer information sciences (Shelley, 1994). Also, considering that a large percentage of college graduates who are employed each year are business and management majors, it is imperative that employers know to what extent these graduates are being prepared for entry-level jobs. In 1993, this category of baccalaureate degree holders made up as much as 27 % of the workforce (Hecker, 1995).

This study seeks to provide relevant information to educators, students, and employers about the status of the business school curriculum in preparing undergraduates for employment. The rapid advancement and availability of technology have made the global business environment so competitive that entry-level workers need to possess the necessary employability skills to be productive and of real value to their employers. Moreover, business graduates' specialized training, and their dominance in important areas in many corporations make it possible for them to advance to middle and upper-management positions in those corporations within 20 years after college (Gordon & Howell, 1959). Therefore, it is logical to assume that if these workers are exposed to the essential skills required for success in the workforce, they can be of significant value to the long-term viability of their employers.

Delimitations

The scope of this study was delimited by the following factors. First, this study focused on the final-year undergraduate business students of five tertiary institutions in the States of Michigan, Indiana, and Tennessee. Second, it did not seek to measure employers' perceptions of business graduates' level of preparedness. Instead, it relied on

the results of previous research done in this area by Carnevale et al. (1990) for the American Society for Training and Development (ASTD) and the Secretary's Commission on Achieving Necessary Skills report (SCANS) (U.S. Department of Labor, 1991). Third, this study was limited to an analysis of the self-perceptions of final-year business students and their professors in the undergraduate business school as opposed to the whole undergraduate curriculum. Therefore, the reader should exercise caution in not ascribing any findings made in this study across the whole undergraduate curriculum. Finally, the study targeted only those students who have no work experience in a professional setting prior to enrolling in their business programs.

Limitations

The perceptions of students and their faculty were analyzed using a post-test-only design instead of a longitudinal approach. As a result, the study measures their perceptions in their final year of studies without accounting for any possible perceptual changes that would occur had they become assimilated in the work environment. Moreover, the five institutions of this study are intact, convenience samples selected for their availability and for their representative attributes rather than sampled at random. Consequently, caution should be exercised regarding the generalizability and interpretation of the findings.

Also, it is important that the reader be aware that this study like other self-reported research are based on the respondents' own perceptions or their view of reality. It is not the researcher's intention that the findings be generalized to other business

schools or undergraduate curriculum that were not the focus of this study. Another concern is that opinion is divided as to what extent competencies such as ethical and moral values and work ethic can be changed by the curriculum. Therefore, the reader should exercise caution regarding the findings in this study that are related to such competencies. Also, the low return rate of valid questionnaires of 31.6% by students and 43% by faculty is another potential weakness that can affect the interpretation of the findings in the study.

Definition of Terms

The following terms are defined as they are used in this study:

Job: Those entry-level professional occupations that require a 4-year college degree.

Employability skills: Competencies considered essential for a worker to possess in order for him/her to be successful on the job (Carnevale et al., 1990, p. 255).

Business core classes: Those courses that acquaint the students with the various fields in business and help them learn to communicate, to interact, and to assume responsible positions in their chosen fields.

Business majors: Those courses that are designed to develop the student's technical competencies in a particular field or area of business. They allow the student to utilize both his/her technical and non-technical skills to solve business problems.

Learning how to learn: "Possessing, or acquiring, the knowledge and skill to learn effectively in whatever learning situation one encounters" (Robert M. Smith, cited in Carnevale et al., 1990, p. 39). According to Carnevale et al. (1990), it is "the key to

acquiring new skills. . . . It opens the door to all other learning and facilitates the acquisition of other skills" (p. 17).

Literacy: The ability to perform the job-related reading and writing tasks demanded in the workplace (Carnevale et al., 1990, p. 72).

Numeracy Skills: Consists of the ability to perform basic mathematical functions. This also includes the ability to interpret graphs and basic statistics (U.S. Department of Labor, 1991, p. 16).

Communication skills: The ability to speak thoughts and ideas in clear standard English, and the ability to communicate thoughts, information, and messages effectively in writing (Gessner, 1995, p. 52; U.S. Department of Labor, 1991, p. 16).

Thinking skills: The ability to generate new ideas, make decisions, generate alternative course of actions and consider risks (Carnevale et al., 1990, p.191).

Problem solving skills: The ability to recognize a problem and devise a specific course of action to solve the problem (U.S. Department of Labor, 1991, p.16).

Interpersonal skills: The ability to interact socially and to demonstrate respect for the opinions, customs, and individual differences of others (Oneil et al., 1992, p. 13).

Ethical and Moral Values: Standards of conduct and moral judgment that involves the exhibition of responsible behavior and attitudes in such areas as honesty, integrity, and trust (Arnold, Schmidt, & Wells, 1996, p.185).

Work ethics: The ability to exhibit responsible work habits. It is a set of attitudes, beliefs, and values that acts as a compass for how the employee adopts to and acts upon his work environment (Miller & Coady, 1984, p.5).

Teamwork: The ability to combine effectively one's efforts with other group members in order to achieve the group's goal (Katzenbach & Smith, 1994, p. 21).

Technology: The ability to use procedures, tools, or equipment including computer knowledge in order to prevent, identify, and solve problems (U.S. Department of Labor, 1991, p. 12).

Leadership: The ability to influence others in an organization in ways that enhance their productivity and satisfaction (Johns, 1988, p. 309).

Organization of the Study

The dissertation was organized into five chapters. Chapter 1 includes the statement of the problem, purpose of the study, the theoretical framework, significance of the study, delimitations, limitations, and the definition of terms.

Chapter 2 includes a review of the relevant literature which features an historical review of the undergraduate business curriculum, prediction of what the workplace will be like in the 21st century, the impact of the future workplace on the business graduate, the essential skills needed to prepare the worker for the future workplace, and the strategies that business schools utilize to integrate the essential skills in the curriculum.

Chapter 3 outlines the research methodology and procedures that were used in the study. The samples and the instruments used to collect the data are described. Also, this chapter presents the null hypothesis and the statistical procedures that were used to analyze the data.

Chapter 4 consists of the analyses of the findings relating to the study.

Chapter 5 consists of the summary, implications, and recommendations relating to the study. The appendix includes copies of the two types of questionnaires that were used to collect the data, and the researcher's curriculum vita.

CHAPTER II

LITERATURE REVIEW

A study was done of the literature to gain a deeper understanding of the historical background of the undergraduate business curriculum from a liberal arts perspective. This approach was taken because a preliminary literature review indicated that those skills that employers consider essential for employee effectiveness are a part of the anticipated outcomes of the liberal arts experience (Bikson, 1996; Brewer, 1990; Hill, 1990; Maritain, 1962). Also, an extensive review was done of related research studies and publications to ascertain what the prevailing trends are in the evolution of the undergraduate business curriculum as it relates to the preparation of students for the workplace.

This chapter is divided into four areas based upon the following questions:

1. What was the business curriculum like prior to the 1990s?
2. What will the work environment be like in the 21st century?
3. What are the essential skills needed by the entry-level professional for the 21st century workplace?
4. What steps are being taken by business schools to ensure that their graduates have the necessary skills for entry into the workplace of the 21st century?

Historical Background

The economic transition of the American society from the production of agricultural goods to heavy industry goods in the 1890s led to a dramatic change in the nature of work. The majority of the American workforce was uneducated with a minimal amount of skills. The corporations of that era employed large pools of unskilled laborers to move objects, assemble mechanical devices, and to adjust machinery (Carnevale, 1996; Kanter, 1983). Direct employment in the manufacturing sector peaked during the 1940s when 40% of Americans worked either as craft persons or as operatives and laborers (Office of Educational Research and Improvement, 1993). Simultaneously, the percentage of Americans employed in managerial and supervisory capacities amounted to approximately 10% of the 23 million employees in corporations in 1951 (Gordon & Howell, 1959).

The 1960s signaled the end of the industrial economy and the emergence of the service/information economy (Foster, 1995; Rifkin, 1995). The advancement in technology and the rapid rise in domestic and foreign competition created a greater demand for college-educated professionals who were expected to manage both the corporation's internal and external environments (Bartholome, 1991; Horan, 1993). Consequently, "the percentage of Americans employed in managerial, sales, clerical, professional, and technological operations rose from 18 percent of the working population in 1900 to 56 percent in 1988" (Office of Educational Research and Improvement, 1993, p. 11).

The major consequence of this increased demand for business-educated

professionals was the increased availability of management education in the universities and liberal arts colleges. While some quarters of the academic community criticized the discipline as vocational and questioned its legitimacy in the college curriculum, there remained a steady increase in enrollment of both men and women into the discipline (Gordon & Howell, 1959; Pierson, 1959). Nonetheless, as corporations expanded and technology made the economic environment more difficult to manage (Porter & McKibbin, 1988), there arose a growing concern about the quality of management education that was offered in higher education. Consequently, two landmark studies sponsored by the Ford and Carnegie foundations were done to assess the status of business education and to provide direction on how to make the curriculum more relevant.

The Gordon/Howell and Pierson Reports

The Gordon/Howell and Pierson reports were sponsored by the Ford and Carnegie foundations respectively. Both studies were commissioned with the primary objective to ascertain how American business schools were preparing their graduates for work. The studies were completed in 1959 at a time when business schools and departments of business were searching for identity in the halls of higher education. The findings of both reports addressed some important issues that are discussed in the 1990s by employers, policymakers, and educators. Such issues center around the areas of what knowledge, skills, and abilities the business graduate should possess. There is also concern about the degree of breadth and specialization of the business curriculum and the

role employers must play in improving this process.

Both reports were critical of the general quality of the programs offered, the students who were admitted in the programs, and the quality of the teaching staff.

According to Dulek and Fielden (1992):

Those who follow the fortunes of business education know that the schools of business found themselves under bitter attack more than 30 years ago. Then the business sponsored Carnegie and Ford reports castigated business schools for being inferior to other schools (particularly arts and sciences) in curricula, students, and faculty research. The reports blamed this shameful condition on the business schools' slavish pandering to business vocational needs. (p. 14)

Gordon and Howell (1959) identified three broad career objectives that guided the business schools in the late 20th century. The first was to prepare students for a career in business without regard to the kind of business or job; the second objective placed emphasis on imparting knowledge of subject matter such as accounting or marketing; the third objective, which was generally downplayed, was the preparation of the student for the first job after graduation.

The Gordon/Howell and Pierson reports identified weaknesses in the curriculum of both member and non-member schools of the American Association of Collegiate Schools of Business (AACSB), the accrediting body for business schools. The authors of the foundations reports were critical of the short shrift that was given to the liberal arts component that comprised the undergraduate business curriculum. According to Pierson (1959), "undergraduate preparation for business necessarily rests on a number of subjects in the liberal arts area. The work in these subjects should be pursued beyond the first introductory level" (p. 163). The authors of both reports were concerned with the fact

that very little planned coherent effort was being made to strengthen the liberal arts content of the business curriculum. Instead, they contended that the curriculum was overspecialized and vocational in content and design (Gordon & Howell, 1959; Pierson, 1959). Both studies were also critical of the lack of scholarship and limited teaching strategies that existed in business schools.

The Porter and McKibbin Report

The Porter and McKibbin study, which was sponsored by the American Association of Collegiate Schools of Business (AACSB), was published in 1988. The authors were given an explicit mandate, which was to conduct a comprehensive appraisal of the status of management education as it existed in the 1980s, and to determine the future direction of management education.

Findings from their study reveal that the undergraduate business curriculum had improved in rigor from what was reported in the 1950s by the two foundation studies. Furthermore, the AACSB standards that today guide the curriculum decisions of many business schools were an adaptation of some of the recommendations made by the Gordon/Howell and Pierson reports. The recommendations included the minimum percentage of the curriculum that was required to be devoted to liberal arts education, specification of the types of courses that students should take as part of the liberal arts core, and identification of both quantitative and behavioral components that entail a common body of knowledge (Porter & McKibbin, 1988).

Although Porter and McKibbin suggest that business graduates have improved in

quality, there is still dissatisfaction by faculty, administrators, and employers with the level of employability skills that these graduates possess. In fact, based on the Porter and McKibbin findings, only in the areas of high motivation to work and knowledge of particular content area were graduates rated above 33% by faculty, deans, and placement directors.

The 21st-Century Workplace

As the American society approaches the 21st century there is increasing concern about the nature of the workplace and the quality of workers leaving institutions of higher learning (Green & Seymour, 1991; Van Horn, 1995). According to Lynton (1991), "corporate structure has become leaner and more horizontal. Many enterprises consciously blur the traditional, hierarchical, vertical differentiation of responsibilities" (p. 16). Lynton further states that

it is becoming increasingly difficult to anticipate the consequence of even simple acts and to predict outcomes with any degree of certainty. In business, government, healthcare, social services, education, and most other spheres of professional activity, reality is messy, problems are not well defined, and instead of unique solutions there exists in most situations a variety of options, each involving trade-offs among competing goals and values. (p. 20)

In a similar vein, Green and Seymour (1991) complained that as

American and foreign corporations scramble for position in the global marketplace, they are discovering that the organizational structures and management practices that they have lived by for decades no longer work. New challenges are creating new problems that require a different concept of the business organization. The business environment of the 1990s will require that companies be more flexible than in the past, capable of responding quickly to a fast changing world with a lean management team--a flattened pyramidal structure. Product innovation will be important. The successful coordination of information will be important. The ability to create unique products targeted

at smaller, more selective groups of consumers in an international market will be important. A new employee skills mix is required to meet these challenges. (pp. 15, 16)

This epitomizes the kind of work environment the business graduate will encounter as he/she enters the workplace of the next century. Alfthan (1985), Ehrlich (1994), Heckman (1993), Levitan (1984), Oneil et al. (1992), and Steingraber (1986) have identified technological convergence, the increase participation of women and minorities in the workplace, more participative labor-management relationship, greater degree of teamwork across functional units, and the increase in the magnitude of work that will be performed at home via the computer as some of the major issues that will shape the future workplace.

However, some futurists and scholars have expressed reservations about the extent to which the future workplace will demand new skills (Gardner & Marker, 1991; Levitan, 1984; Rifkin, 1995). While Levitan (1984) does not deny that the workplace has been changing at an accelerated pace, he rejects the notion that work will be so transformed by technology that the current skills needed to accomplish tasks will be radically altered. Gardner and Marker (1991) cited results from workforce 2000 reports that showed 45% of employers and managers showed little concern about the gap between current skills levels and future job requirements. Rifkin (1995) argues that the future workplace will not be able to re-employ many displaced blue-collar workers as was possible during the era spanning the 1950s through the 1980s, when the service and information sectors of the economy absorbed many of the blue-collar laborers displaced by automation. In fact, he speculates that future job growth will take place mostly in the

knowledge sector, an industry made up of highly educated professionals such as engineering, management, teaching, and consultancy.

Impact of Future Workplace on Business Graduate

The prediction of such changes in the workplace makes it inevitable that the entry-level professional will experience a rough transition if he or she is not adequately prepared. There are two important attributes that will affect the undergraduate upon entry into the workplace. Candy and Crebert (1991) point to the failure of higher education to give systematic attention to the transition that graduates are required to make from the learning environment of higher education to the learning environment of the workplace. Candy and Crebert (1991) further argue that too often the focus is on the type of training that will make the graduate able to perform his/her first job. However, the manner in which the training and education is delivered is as important. Failure to make the training process similar to how the worker learns on the job will make the transition to the workplace less smooth.

In the workplace, learning is less formal and less structured than in the university and college. The graduate is required to display more initiative and assume the responsibility for his own learning. This runs counter to the typical higher education atmosphere where the learning environment is more predictable and more structured (Candy & Crebert, 1991; Wallhaus, 1996).

The other area in which the undergraduate business professional will be affected is the growing expectation of employers for graduates with broad knowledge and skills to

bolster their specific content area knowledge (Carnevale et al., 1991; Esque & Gilbert, 1995; Green & Seymour, 1991; Smith, Jones, & Lane, 1997; U.S. Department of Labor, 1991). Employers argue that unless workers possess a broad range of knowledge and skills, they cannot assume greater responsibility and make meaningful contributions in either their functional areas or across operational units (Bishop, 1995; LaMarco & Taylor, 1994; Lynton, 1991; Theeke et al., 1993).

Those two attributes are not mutually exclusive. Instead, they are issues on a continuum that defines what education is most appropriate for the business graduate entering the future workplace. Heckman (1993) argued that education for entry-level positions requires, in addition to technical learning, a broad liberal arts education that will make the worker live a more productive and fulfilling life. Smith and Kleiner (1988) suggest that the myriad of problems that daily confronts the business professional requires more than a specialized education. They argued that "speciality training produces minds in a groove. Each profession makes progress, but it is progress that is made in its own groove. The effect is viewing the world through tunnel vision" (p. 36). Mandt (1982) was more direct in his criticism of the business school curriculum when he stated that "the business school graduate is adequately trained to get the first job but often has difficulty holding it and advancing" (p. 49). Critics in academia (Hill, 1990; Porter & McKibbin, 1988; Smith & Kleiner, 1988; Useem, 1995) and the business community (Jones, 1996; Mandt, 1982) have expressed concern with the vocationalization of the business school curriculum and higher education in general. Instead, they would like the curriculum to reflect a greater integration of skills identified by both the Secretary's

Commission on Achieving Necessary Skills (SCANS) report, the American Society for Training and Development (ASTD) study which was conducted by Carnevale, Gainer, and Meltzer (1990), and liberal arts study. This type of integrated curriculum, according to Hill (1990), would result in "a more fully educated person with improved intellectual abilities: one who has an appropriate level of professional skills but who also possesses a practical disciplined sense of self and society" (p. 314).

While this perspective is gaining acceptance among a growing number of academicians and employers, there are those who caution against de-emphasizing job-specific skills training in the secondary and tertiary curriculum (Bishop, 1995).

Essential Skills Needed for the Entry-level Professional

Although many studies and surveys have been done at the federal and state levels and in academia on the types of skills employers are looking for in entry-level employees (Davison, Brown, & Davison, 1992; Florida Employer Opinion Survey, 1993; Gardner & Lambert, 1992; John Tyler Community College Employer Survey, 1994; Smith et al., 1997; Van Horn, 1995), two studies specifically addressed the subject of employability skills. These were examined to determine if there exists a common body of thought that could form the basis for a canon. These studies are the SCANS report released in 1991 and the ASTD study published in 1990.

These studies relied on the expertise of educators, policy makers, employers, and scholars to identify relevant workplace skills (Oneil et al., 1992). There are a number of skills and attitudes that are common in all these studies. While various labels have been

used to describe some of the skills, the basic interpretation related to each is similar. The remaining portion of this section of the literature review focuses on explaining what these skills are, and why they are important for fusion in the undergraduate business curriculum.

According to Oneil et al. (1992), the skills most common in the major studies on employability skills are:

1. Basic academic skills such as reading, writing, and computation
2. Learning-to-learn skills
3. Communication skills such as written communication and oral communication
4. Teamwork and interpersonal skills
5. Thinking and problem-solving skills
6. Leadership skills
7. Ethical and moral values
8. Work ethic
9. Computer technology skills.

Basic Academic Skills

The basic academic skills of reading, writing, and computation are not considered employability skills. However, much currency is placed on these skills since they are considered "core capabilities underlying all of education and work" (Wallhaus, 1996, p. 15). In the workplace of the 21st century, the employee will be surrounded with the latest in computer and telecommunication technology that will make the demand for literacy

skills paramount. Such an environment will require the worker to be able to acquire, comprehend and evaluate information and to accurately interpret written data. The business graduate should be able to apply basic mathematical techniques to approach and solve quantitative problems (Bartholome, 1991; Levenburg, 1996; Van Horn, 1995)

Although these skills are taught in an academic environment, employers are dissatisfied with the level of proficiency among entry-level workers (Carnevale et al., 1990; Davis & Lomo-David, 1994; U.S. Department of Labor, 1991; Van Horn, 1995). Wallhaus (1996) criticized higher education for aligning basic skills with traditional academic disciplines, instead of integrating them across the college and university curriculum. Such decontextualized approaches to teaching these skills make them less meaningful to the learner (Candy & Crebert, 1991).

Learning-to-Learn Skills

Carnevale et al. (1990) argued that the skill of learning to learn is fundamental to acquiring other skills that are of value to employers. They stated that the learning-to-learn skill "opens the door to all other learning and facilitates the acquisition of other skills from literacy to leadership" (p. 17). The concepts underlying the learning-to-learn skill requires the learner to identify his own learning style and his/her learning needs (Joyce & Weil, 1986). Learning-to-learn techniques result from the learner relying on learning strategies that enhance long-term storage and recall of information. It involves the identification of ways to identify, record, organize, and form relationships (Carlisle, 1985; Carnevale et al., 1990; Joyce & Weil, 1986). In fact, learning to learn is

considered the basis of lifelong learning or the ability to expand learning throughout adult life. Coberly (1996) credits the learning-to-learn skill as an essential skill that the worker needs for "long-term survival, particularly in times of turbulence, change, or discontinuity" (p. 100). The acquisition of this skill requires active participation by the learner. It is a dynamic process that requires the learner to critically assess the environment in which he or she works, to determine what skills are needed to be effective, to find out the skills that are lacking and to take the initiative to acquire those skills.

Learning-to-learn skills are important to the worker who wants to remain productive in the 21st century. Gardner and Marker (1991) have suggested that the average worker will make five complete changes during his working life. As the worker moves from one job to the next, he will be expected to adopt to the cultural norms of each employer. Also, the worker is expected to learn new skills, become cross-trained in a variety of jobs, and participate in self-directed team activities (Baloun, 1995). For the worker to successfully adopt to each changing workplace culture, he/she needs to possess those learning-to-learn skills that will ensure maximum learning and performance. Candy and Crebert (1991) have argued that higher education does not foster the type of learning environment that encourages the learner to be self-directed and self-reflective in the way he or she learns. Instead, colleges and universities allow for too much structure and preset objectives. This learning approach ignores the nature of the workplace where problems are often "ill-defined, ambiguous, and open-ended" (Candy & Crebert, 1991, p. 579).

Communication Skills

The ability to listen, speak, and write in clear lucid English is one of the skills employers complain is most lacking in many entry-level employees and job applicants (Ault & Michlitsch, 1994; Porter & McKibbin, 1988). Curtis, Winsor, and Stephens (1989) randomly sampled 1,000 personnel directors in the United States of America to ascertain the skills they considered most important for job applicants to possess in order to be employable. The skills that consistently ranked high among the respondents were oral and written communication.

Carnevale et al. (1990) argued that "communication skills are at the heart of getting and keeping customers" (p. 125). They further stated that "without communication, an organization cannot function. If an organization's workers cannot communicate, little real progress can be made toward achieving strategic objectives" (p. 125).

The increasing availability and use of computer technology such as video conferencing, electronic mail, and the Internet for conducting business transactions make it necessary for the worker to be able to interpret and explain, both written and oral, information between the various users inside and outside the workplace (Amini, 1995). The rapid increase in the use of a "computerized communication support system" (Amini, 1995, p. 49) in the workplace minimizes the supervisory role of many middle managers. Therefore, workers do not have the luxury of having their written work screened by supervisors before it is distributed. Furthermore, the increased reliance on

self-directed teams by many organizations has placed a higher premium on the need for workers who can communicate effectively and persuasively (Katzenbach & Smith, 1994; Parnell, 1996). Carnevale et al. (1990) have argued that while educational institutions seem to provide substantial training in reading and writing, very little effort is made to improve oral communication and listening skills of students. Green and Seymour (1991), quoting from a U.S. Department of Labor report, stated that "the average person spends 9 percent of communication time engaged in writing, 13 percent in reading, 23 percent in speaking, and over half--55 percent in listening" (p. 47). With over 78% of the average worker's communication time engaged in speaking and listening, employers have valid reasons for expressing concern with the level of emphasis academia places on communication skills.

Teamwork and Interpersonal Skills

Teamwork and interpersonal skills are becoming more important in the corporate culture of many American organizations (Carnevale et al., 1990; Green & Seymour, 1991; Katzenbach & Smith, 1994; Parnell, 1996; U.S. Department of Labor, 1991). According to Green and Seymour (1991), "the early history of U.S. corporations emphasized an authoritarian work environment. Workers at all levels were not part of a team, rather, they were treated as employees who required substantial supervision" (p. 62). The notion of employees working together as a team is not easily accepted by many Americans, even though the idea has a long tradition in the country's history (Caudron, 1994). Katzenbach and Smith (1994) argued that most people have individualistic values

that are antithetical to the concept of teamwork. Such attitudes, they believe, are the results of the role played by the church, school, and home in emphasizing individual responsibility. Nevertheless, the spread of technology and the intensity of global competition among economic organizations have resulted in the internal restructuring of many corporations. Such restructuring includes the elimination of layers of management and the formation of self-directed teams (Green & Seymour, 1991). Many corporations are applying the teamwork concept because they have observed how successfully it has been applied by their domestic and foreign competitors to raise productivity and boost morale among their workers (Elmuti & Kathawala, 1997; Katzenbach & Smith, 1994; Parnell, 1996; Phillips, 1996).

Consequently, both employers and academia have begun to scrutinize more closely the importance of teamwork "as an important element in corporate culture and an essential skill for successful managers" (Green & Seymour, 1991, p. 63). Current research seems to indicate that while there are obvious benefits to the utilization of self-directed teams and quality circles in the workplace, there are pitfalls that can make the process unsuccessful (Caudron, 1994; Katzenbach & Smith, 1994; Stewart, 1996).

Caudron (1994) stated that assembling a group of individuals together who are diverse in "personalities, expectations, experience and knowledge" (p. 41) can be a difficult feat. Katzenbach and Smith (1994) make a rather important point that putting individuals together in a group does not necessarily constitute teamwork. They elaborate this point by arguing that "entire organizations can believe and practice teamwork but teamwork and teams differ" (p. 21). Carnevale et al. (1991) have identified five characteristics they

consider necessary in order for members of a team to achieve operational competency.

These characteristics are:

1. Accommodating the individual personalities of team members
2. Understanding individual members' communication patterns
3. Accommodating each member's cultural differences
4. Understanding the dynamics of the team as it progresses through the growth cycle.
5. Being aware of and using each member's job-specific skills and abilities.

An examination of these five characteristics reveals that for the team to successfully operationalize them there must exist a high level of interpersonal relationships. Phillips (1996) stated that "if individuals don't have the tools to interact and communicate effectively with each other, the team's success will be drastically reduced" (p. 90).

Studies conducted in American corporations indicate that a key ingredient to successful teamwork is good interpersonal skills among the team members (Bassin, 1988; Caudron, 1994; Katzenbach & Smith, 1994; Phillips, 1996).

William Brock, the chairman of the SCANS report, characterized interpersonal skills as the ability of the worker to "work on teams, to teach, to negotiate and be able to serve customers" (Brock, 1992, p. 22). For the worker to display such attributes requires competency in an inventory of skills that comprise good communication, human relations, leadership, and group processing. The very nature of what constitutes successful performance in the workplace is the essence of good interpersonal skills. Therefore, assuming that interpersonal and teamwork skills are needed for successful

performance in the workplace, it logically follows that greater effort should be made to integrate them in the undergraduate business curriculum.

Thinking and Problem-Solving Skills

Creative and critical-thinking abilities should be reflected in the entry-level professional's approach to making decisions and solving problems (Caissey, 1990; Joyce & Voytek, 1996). Employers are expressing interest in only those job applicants who possess among other skills the ability to analyze, assess, evaluate, compare, and contrast. College graduates who possess these skills within their repertoire of employability skills are better able to work independently of others as well as function effectively in groups. Employers expect new entrants into the workplace to possess the characteristics of creative thinking, which includes strong reasoning ability, the ability to exercise divergent thinking, and the ability to reflect an original approach to looking at problems (Carnevale et al., 1990; Katzenbach & Smith, 1994; U.S. Department of Labor, 1991). Serious reflections on the impact of critical and creative thinking in the workplace bring into focus the need to find solutions to problems and the need to create novel products and services that will give the organization the edge required to remain competitive. Green and Seymour (1991) suggested that thinking skills and the need to solve workplace problems are interconnected. They argued that each step of progress for the entry-level worker involves solving problems, which requires creative and critical thinking. Carnevale, Gainer and Meltzer (1990) bolstered this perspective by suggesting that creative thinking can be viewed as a point on a continuum that spirals endlessly upward:

Above creative thinking on the continuum is the concept of inventiveness, which involves taking a creative idea and turning it into a practical application. Moving along the spiral, the next high point is referred to as innovation. Innovation encompasses creativity and inventiveness but is primarily the act of bringing about change from an accepted way of doing things to a new way of doing things. (p. 192)

Current research (Smith, Jones, & Lane, 1997; Van Horn, 1995) calls for a more integrative approach to the teaching of thinking and problem-solving skills across the undergraduate curriculum. Wallhaus (1996) indicated that the reason employees lack these skills is due to the failure of colleges and universities to take seriously the need to integrate education and work across the curriculum. Bikson (1996) concurred with this position by arguing that "work experience is seldom encouraged except in engineering, journalism and other departments where there typically is an internship" (p. 16).

Leadership Skills

Leadership skill is a broad concept that conjures up varying meanings to academicians and business executives (Rifkin, 1996; Zenger, 1985). Pawar and Eastman (1997) have identified transactional, charismatic, visionary, strategic, and transformational types of leadership as different, yet somewhat related concepts that characterize the various shades of leadership styles. While scholars focus on the varying leadership qualities, employers seem more precise in their expectations of the type of leadership skills they expect workers to display in the workplace. Employers have suggested that new entrants should be able to work enthusiastically with others and be able to inspire those they work with (Miskin & Gmelch, 1985; Rifkin, 1996).

Although employers consistently identify leadership skills among the essential

skills workers need to possess (Carnevale et al., 1990), they do not expect them to possess the breadth of perspective nor a vision of the organization that is expected of the chief executive officer (Hsieh, 1990). Instead, employers need entry-level professionals who can make decisions on their own. They need workers who can motivate themselves as well as their co-workers. Moreover, employers are interested in job applicants who are willing to assume responsibility for their own professional development.

Pawar and Eastman (1997) suggested that internal and external factors may bring rise to and possible acceptance of those types of leaders who "create a dynamic organizational vision that necessitates a metamorphosis in cultural values to reflect greater innovation" (p. 83). They have applied the phrase "transformational leadership" to characterize the worker who possesses those qualities. Pawar and Eastman (1997) did not specifically identify the development of quality circles, self-directed teams, the diminution in management layers, and the impact of competition and technology on organizations. However, it is logical to assume that these are some of the contextual influences they alluded to that would bring about the emergence of those leaders who can "influence the values, attitudes, beliefs and behaviors" (p. 83) of group members to attain the group's objectives.

Many academicians, business practitioners, and commentators who have written on the subject of leadership seem to agree that communication, interpersonal, decision making, and responsibility skills are necessary qualities that leaders possess (Barrier, 1995; Bennis, 1991; DePree, 1989; Martinez, 1992). These qualities are among the outcomes that liberal arts institutions expect their graduates to reflect (Brewer, 1990:

Buckley, Peach, & Weitzel, 1989; Montross & Shinkman, 1992).

Zenger (1985) suggested that the demonstration of these skills on videos and the use of role playing are effective means of teaching leadership skills. Thomas Gerrity, the dean of the Wharton School, University of Pennsylvania, as quoted from Rifkin (1996), posits the notion that anyone can improve his leadership skills. He suggests that "a mix of conceptual learning, simulation experience and testing in real work settings can help develop the necessary leadership skills" (p. 102) needed by business professionals. Other scholars and employers such as Bennis (1994), Green and Seymour (1991), Quinn, Anderson, and Finkelstein (1996) support the notion that the use of contextualized learning methods can be effective in developing leadership qualities in both entry-level professionals and those who already have exposure to the workplace. Research on the efficacy of cooperative learning, quality circles, and study circles support the theory that such leadership qualities as teamwork, interpersonal relations, and communication can be taught (Cavaliere & Sgroi, 1992; Kanter, 1983).

The need for professionals who possess leadership skills has led to a growing demand for training in leadership. Rifkin (1996) has stated that corporations have spent an estimated \$15 billion each year on executive training. The desire by employers for entry-level professionals with these skills has implications for the undergraduate business curriculum. Zenger (1985) argued that the paucity of leadership education in the business curriculum may have to do with academia's lack of ways to teach it. He further hinted that business schools' preoccupation with emphasizing management education has led to an absence of focus on teaching leadership skills. Van Horn (1995) echoes the

warning that if business schools continue to ignore employers' need for professionals with adequate leadership skills, then the employers will continue to provide such training in-house or seek professional training centers to provide such services.

Ethical and Moral Values

Most of the major studies on employability skills (Carnevale et al., 1990; Oneil et al., 1992; U.S. Department of Labor, 1991) have singled out ethical and moral responsibility as a primary set of attitudes and skills that workers need to possess. For instance, Carnevale et al. (1990), in discussing the importance of organizational culture, suggested that the employee needs to reflect habits of responsibility, self-esteem, trust, and honesty. These are considered core variables that shape many organizations' culture. These habits are considered universal principles (Clarke & Aram, 1997) that foster cohesiveness, which is necessary for improving team productivity. Carnevale (1996) also stated that "the key skill that guarantees quality products and services in an institution is the ability of every worker to take responsibility for the final product or services, irrespective of their particular job assignment" (p. 10).

Both the ASTD study and the SCANS report highlight the concerns of employers for professionals to be educated in the legal and ethical issues that shape the business environment. More specifically, the SCANS report suggested that employers are interested in workers who understand the implications to the organization, to self, and others when the norms, values, and laws of the society are breached (U.S. Department of Labor, 1991). Ethical and moral values such as honesty, integrity, and the willingness to

treat others in the workplace with empathy and respect are of serious concern for many employers. The influx of women and minorities in the job market has created a work environment that is increasingly more heterogenous. Also, the globalization of many United States corporations has created a more culturally diverse work environment (Bikson, 1996). Consequently, there are legal, ethical, and moral implications that make it imperative for employers to select workers with the necessary skills and attitudes that will enable them to function in this type of environment (Finegan, 1994; Kanter, 1989; Miller, 1995; Robin & Reidenbach, 1987).

This has implications for the business curriculum considering that Hunt and Jennings (1997), relying on previous studies, suggested that students' ethical values tend to be significantly less than that of professional employees and that students are more inclined "to violate standard codes of behavior, or they are unsure of potential outcomes of such behavior" (p. 197). Findings from research done by Cole and Smith (1996) also support the view that business students are less sensitive when confronted with moral dilemmas. Cole and Smith's (1996) meta-analyses of previous research indicate that many business students have little difficulty in committing illegal acts if the monetary benefits are great. However, Arlow and Ulrich (1988) relied on previous studies and studies that they conducted at a 4-year AACSB-accredited business school which suggested that students' socialization in the workplace may have greater impact on their behavior than the ethical training they received in school.

Based on these findings, business schools need to develop integrative approaches that will make the business curriculum more responsive to the ethical and moral

behaviors of the students. Students should become more sensitive to co-workers from diverse backgrounds and become clear on issues that have moral and ethical implications. An integrative approach to the teaching of ethical and moral responsibility skills should be implemented that will prepare the students for the workplace. Bishop (1992) argued that

students are not exposed to enough situations where they are to explicitly integrate their value sets in their decision-making. Students should be faced with ethical issues through multiple courses and be exposed to diverse ethical dilemmas; only then may students be equipped to transfer this learning to their lives and careers. (p. 294)

Work Ethic

Work ethic is another important skill that employers expect college graduates to possess before they enter the workplace (Oneil et al., 1992; U.S. Department of Labor, 1991). It is a set of attitudes, beliefs, and values that acts as a compass for how the employee adapts to and acts upon his/her work environment (Miller & Coady, 1984). Ford and Herren (1994) have suggested that the Protestant work ethic is a set of principles that has been the work ethic philosophy of workers in the United States for generations. A review of the literature supports the notion that the Protestant work ethic, which includes preference for hard work, physical labor, respect for authority, and honesty and integrity, is not fully embraced by the new workforce (Ford & Herren, 1993; Halcrow, 1987; Sheehy, 1990).

In fact, the advancement in technology, the gains in productivity and prosperity, and the increasing shift to a service economy have contributed to a change in workers'

and employers' perspectives of the work ethic (Ehrlich, 1994). The demand for a shorter work week, more time for leisure, and employers' inability to guarantee long-term employment and their willingness to downsize amidst competitive pressures underscore the emergence of a set of contemporary work values. However, research conducted by Wayne (1989) has shown that those values that comprise the contemporary work ethic are unique to the Protestant work ethic. What seems to be of concern to employers is the prevalence of a set of values and attitudes displayed by workers that are contrary to a good work ethic. Nass (1986) stated that

what gives management the most intractable difficulty is employees' subtle disregard for company product, equipment, time and property and their indifference or tacit antagonism to company goals. It takes supervisory skills to discern, pinpoint and analyze the extent and causes of this kind of silent sabotage. (p. 28)

Sheehy (1990) supported this perspective by arguing that "a new generation of workers had acquired habits that consist of contempt for customers, poor work habits, lack of ethical standards, unrealistic expectations and over reliance on technology" (p. 28). This kind of work ethic has slowly permeated the workplace, thereby posing a serious risk to a firm's survival because it affects the quality of product and services that the company produces, and the morale of the workers (Nass, 1986).

Therefore, employers, policy makers, and educators have cited the need for greater emphasis of a strong work ethic in the curriculum (Carnevale et al., 1990; Oneil et al., 1992; U.S. Department of Labor, 1991). Ford and Herren have argued that workers can be taught an enabling work ethic if the curriculum allows for the use of innovative strategies that can assist the students in their moral development. Such innovative

strategies include modeling, role playing, reflection, and/or articulation. The National Business Education Association (1997) supports the use of case studies, cooperative learning, role playing, and debates as teaching methods that business teachers can utilize to expose the students to ethical concerns of employers. These teaching strategies would require the business school curriculum to provide in-service activities for those professors who are unfamiliar with the use and merits of these teaching methods. Nevertheless, it is imperative that the business schools examine their curriculum and incorporate where necessary the request of their stakeholders.

Computer Technology Skills

Computer technology is rapidly becoming a universal feature in the life of the average worker (Davison, Brown, & Davison, 1992; Green, 1996). "Today's businesses are becoming heavily dependent on computerized support systems to quickly process and distribute information within and outside the organization" (Amini, 1995, p. 49).

According to Mingle (1995)

computer sales already outnumber purchases of new television sets and Internet access grows at an astounding rate. In 1987 there were approximately 16,000 users of the Internet; in 1995 estimates range to near 30 million; by 2000 estimates are that there will be over 1 billion users of the Internet worldwide. The use of the World Wide Web (the graphics, multi-media portion of the Internet), also is undergoing mind-boggling growth. (p. 8)

This is a snapshot of the impact of computing technology on society. Although Carnevale, Gainer, and Meltzer (1990) did not specifically address this subject in detail, other studies on employability skills discussed its importance to employers and employees and its impact on the college curriculum (Amini, 1995; Bialaszewski,

Franklin, & Turnquist, 1992; Bikson, 1996; Clinebell & Clinebell, 1995; U.S. Department of Labor, 1991).

While business schools seem to stumble in efforts to integrate most employability skills in their curriculum, there seems to be a more concerted effort by administrators and faculties to expose the students to computing technology (Amini, 1995; Green, 1996; Wade, 1996). However, this does not mean computer technology is being integrated throughout the 4 years of the undergraduate business program. Findings from a survey of 228 universities by Clinebell and Clinebell (1995) reveal that many schools possess the technology but are not integrating it throughout the undergraduate curriculum. What is also revealing about the study is that over one third of the schools surveyed were not integrating computer technology in courses such as operations management and business statistics, subjects that command a high level of use of computer knowledge.

Bialaszewski, Franklin, and Turnquist's (1992) study of mathematics, statistics, and computer science use in the marketing departments of 230 AACSB-accredited schools revealed that most schools offered at least one course in computer science or management information systems. However, word processing and the use of statistical packages seem to be the most common means by which computer usage is introduced in the program. Also, instead of integrating computer usage throughout all the marketing courses, most of those schools seem to limit their application to three of the most frequently offered marketing courses. These courses are principles of marketing, marketing research, and marketing management. The findings from this research also reveal that AACSB-accredited schools do not necessarily outperform AACSB non-

accredited schools in teaching computer technology.

Wade (1996) suggests that computer technology should be presented in the business core as a means to an end, not as the end itself. Instead of focusing on the teaching of specific software courses, the curriculum should prepare the student to access and distribute information by multiple electronic routes such as electronic mail, the Internet, and World Wide Web (WWW) sites. Faculty can enhance students' interest in computer technology by incorporating the use of video conferencing, electronic mail, CD-ROM-based materials and other multimedia resources as part of their teaching repertoire (Aiken, 1996; Amini, 1995; Green, 1996; Wade, 1996). Four studies conducted at the University of Mississippi's School of Business Administration used graduate and undergraduate students to determine the effects of Group Support Systems (a system that allows group members to exchange comments, communicate, or vote simultaneously in the same room via the computer) in the classroom. Aitken's (1996) review of the literature on the interactive use of computers in the classroom suggests that this technology increases participation and productivity. His review of the literature indicates that group support systems provide a new method for stimulating exploratory or higher order discussions. These findings were supported by Hunt and Burford (1994) in an earlier study, which suggested that Group Support System is a useful tool that can benefit both the classroom teacher and the student.

Davison, Brown, and Davison's (1992) survey of employers' perceptions of business graduates' level of preparedness found out that in five specific computer application areas-- word processing, database management, spreadsheet, graphics, and

publishing-- only word processing and spreadsheet applications were deemed satisfactory. While the authors of this report expressed concern about graduates' computer proficiency, they echoed the sentiments of those who question the prospect of integrating these computer skills into the already crowded undergraduate curriculum.

Although the curriculum may be crowded, business schools and curriculum planners at the undergraduate level need to recognize that computers are the primary working tools in most corporations. Therefore greater emphasis needs to be placed on educating the student on the importance, the application, and maintenance of this technology.

The Undergraduate Business Curriculum: Current Status

Many business schools and departments of business in the small liberal arts colleges have begun to experiment with and devise strategies to make the curriculum reflect the experiences of the workplace (Amini, 1995; Chew, Bowers, Cleveland, & Drewry, 1996; Hammon, Hartman, & Brown, 1996; Jessup, 1995; West & Aupperle, 1996). The business schools have little choice but to embrace different learning environments, devise different schemes for program delivery, and espouse relevant student outcomes that are acceptable to employers and students if they hope to remain viable entities (Wallhaus, 1996; Van Horn, 1995). According to the literature, some institutions have taken steps to provide their business students with a broad educational experience by emphasizing the importance of the general education component of the curriculum (Curry, Wergin, & Associates, 1993; Hill, 1990; Porter & McKibbin, 1988).

The American Assembly of Collegiate Schools of Business (AACSB), the only accrediting organization of business schools recognized by the Council on Postsecondary Education and the Office of Postsecondary Education of the U.S. Department of Education (Jentzen & Pendleton, 1994), raised its accreditation standards by requiring business schools to combine the study of business with general education courses. The accrediting body has mandated that the general education component comprise at least 50% of the undergraduate program (AACSB, 1994-1995; Curry et al., 1993; Porter & McKibbin, 1988).

While this effort is laudable, there is an implicit assumption that students can develop the skills and attitudes of liberal learning by simply choosing from the recommended general education courses. The AACSB (1994-1995) standards for the business accreditation document require the undergraduate curriculum to reflect the development, implementation, and assessment of innovative instructional strategies to support program delivery. Yet the document failed to offer directives on how to integrate the general education courses with the business core.

While some schools have made deliberate efforts to integrate the general education component into the business curriculum and to emphasize those workplace skills that employers consider essential (Ault & Michlitsch, 1995; Chow, Bowers, Cleveland, & Drewry, 1996; Hill, 1990; Jessup, 1995), many business schools have devoted little attention to the implementation of strategies "to successfully increase the integration of their curricula" (Hill, 1990, p. 314). Heckman (1993) and Wallhaus (1996) have indicated that higher education's failure to step out of the philosophical paradigm of

viewing occupational skills as vocational and academic work as classroom based is partly the reason for the lack of concerted attempts to make the curriculum more integrated.

Hill (1990) offered his rationale for a more integrated curriculum, stating that "curriculum integration involves a more conscious effort to view the professional and liberal arts components of the undergraduate business curriculum as essential parts of an integrated whole" (p. 314). Curry et al. (1993) concurred by stating that "liberal learning is best developed within the context of professional education" (p. 143).

Although contextualized learning has been used with success in some graduate and professional programs, little effort has been made to provide similar learning strategies at the undergraduate level (Candy & Crebert, 1991; Wallhaus, 1996). Consequently, employers and some academicians have expressed the need for greater application of applied learning and assessment strategies in the undergraduate curriculum. This approach, they believe, will provide a better assessment of students level of preparation for work.

Employers' desire for entry-level professionals who possess the necessary employability skills has placed great demand on business schools to improve the quality of teaching that is done in the classroom. The professor is considered an effective teacher when he/she is perceived by the students as making the linkages clear between the theory and what is practiced in the workplace (Candy & Crebert, 1991). According to Rosenbloom (1995), the business professor displays good teaching when he/she embraces multiple learning strategies that can motivate the students, instill confidence in their ability to perform, and which make the classroom experiences meaningful.

Therefore, in addition to the use of the lecture method which is still commonly used (Birk, 1997; Ejigiri & Tarver, 1994), there are a number of strategies that are applied by some business schools to integrate employability skills across the curriculum. These include internship programs, business and computer simulations, case-based instruction, and team learning.

Applied Learning Methods: Steps Taken to Integrate Employability Skills

Internship Program

According to Iyengar, Dye, and Gregory (1994), "a student internship program is important to any higher educational curriculum aimed at preparing students to compete in today's economy" (p. 3). Internship programs are considered effective channels that can be used to expose the learner to the workplace (Pressley & Guthrie, 1995; Wallhaus, 1996). As an applied learning method, it enables the student to experience what the actual work environment is like. Harcharik (1993) defends the internship in business management provided to students at California State Polytechnic University, Pomona, as follows: "It attaches greater meaning to the students' academic program; it provides increased opportunity to examine career possibilities; it encourages increased maturity and confidence through added responsibility; and it may develop the students' ability to work with others" (p. 25). Eyler (1993) extends this line of argument by stating that internship programs "contribute to affective goals such as increased self-esteem, tolerance and sense of responsibility and to career development" (p. 41).

Iyenger, Dye, and Gregory (1994) surveyed 813 employers who participated in the University of California-Los Angeles communication studies internship program. These employers who were drawn from journalism, television, advertising, and the entertainment industries expressed positive attitudes towards the merit of the internship program. From the 237 respondents, 51.9% revealed that they would employ graduates with internship experience. Also, 57.8% indicated that they valued the creative ability of those interns with liberal arts training, while 91% valued the written and oral communication skills of interns. Some of the positive features that interns acquire and are allowed to display in the workplace are among the attitudes and skills identified by the major studies on employability skills.

While there seems to be consensus on the high level of support for internship programs by college professors, there is uncertainty about the extent to which this type of applied learning can strengthen the learner's cognitive skills so that he/she knows when to apply classroom knowledge to real-life experience (Washbourn, 1996). Eyler (1993) suggested that it is possible for the learner to apply inert knowledge in the work environment if the knowledge acquired in the classroom is facilitated by an internship program that demands the use of such knowledge. This, he argued, is more effective where the intern is guided by a "facilitator who can help make the intellectual process involved explicit" (p. 41).

This perspective is supported by studies done in cognitive psychology that distinguish between short-term or episodic memory, which is oriented to the present, and long-term or deep semantic memory (Washbourn, 1996). Defalco (1995) suggests that

there is currently a trend in cognitive psychology that considers the behaviorist view of learning too simplistic. Defalco (1995) argues that there needs to be focus "on how the learning experience on the job would be designed, monitored, evaluated and improved" (p. 58). He further suggested that apprenticeship programs that merely place the learner on the job to gain experience are ineffective. This argument is supported by Spinks, Wells, Duggar, and Mellington (1996) who stated that "businesses must be willing to allow interns to observe and participate in all managerial phases of business practices for the internship to be a valuable learning experience" (p. 29).

The internship program is one applied-learning method that is available to business schools interested in providing their students with the necessary skills and experience needed for success in the workplace. The literature strongly supports the use of internship in the undergraduate curriculum. Candy and Crebert (1991) suggest that off-campus programs that allow the student to work in industry while in school enable the learner to become more self-confident and raise his/her level of independence. Bikson (1996) concluded from his study for the RAND Corporation that employers are more interested in the fact that graduates had internship experiences that expose them to the workplace, help improve their self-esteem, and strengthen their work ethic, and less interested in the industry in which they did their internship. Bikson further argues that the student's internship experiences help him or her to develop a greater appreciation for good human relations skills and healthy work habits.

Business and Computer Simulation

Business simulations or management games are an experiential learning method that "contains enough verisimilitude, or illusion of reality, to induce real world-like responses by those participating in the exercise" (Keys & Wolfe, 1990, p. 308). Although the method has been a part of the business curriculum since the 1950s (Engholm & Bigel, 1996; Faria, 1987; Keys & Wolfe, 1990), it is since the 1970s that its use has become widespread among the faculty in undergraduate business programs. Faria (1987) estimated that about 8,755 instructors in over 1,900 four-year business schools used business games in their course work.

While some simulations are non-computerized, most of those used in the business curriculum are computerized. They are normally used in the strategic management courses or the "capstone" business policy course (Engholm & Bigel, 1996; Keys & Wolfe, 1990; Walters, Coalter, & Rasheed, 1997). Clinebell and Clinebell (1995) did a survey of 651 chairs of management departments in AACSB-accredited schools and non-accredited schools that have joined the organization. The purpose of the study was to determine if computers were integrated into the management curriculum. From the sample population of 651 chairpersons, 228 usable questionnaires were returned, consisting of 40% from accredited schools and 31% from the non-accredited schools. The study revealed that while AACSB-accredited schools have better and more computer facilities and equipment, the non-accredited schools were making greater effort to integrate computer technology in their curriculum. The study also revealed that computer simulations were used mostly in the senior-year management courses such as strategic

management and operations management.

Engelholm and Bigel (1996) identified three important benefits of the simulation experiences to participants

"First, the ability to modify their behavior in a realistic setting; second, the ability to react not only to number results but also to enhance their business skills and modify their interpersonal skills, and third, the ability to focus not only on individual behavior but also to identify and work as a group." (p. 22)

Similarly, a study conducted by Walters, Coalter, and Rasheed (1997) suggested that simulations provide students with the opportunity to implement strategic concepts with some degree of realism.

Hammond, Hartman, and Brown (1996) conducted an exploratory study of 100 operations officers from manufacturing companies, and 100 professors who teach production/operations management courses at the undergraduate level. The researchers wanted to find out how well the instruction offered matched the skills required by employers. Findings from the study revealed that approximately 90% of the corporate officers said they used computers in their daily operations. These employers indicate that most of the computer usage was for cost accounting, inventory control, and production control. On the other hand, of the 100 professors who were randomly sampled, 63 responded to the interview, of which 65% indicated they used computer software packages in their courses. What was even more surprising is that while the majority of textbooks used for the course had computer software packages included or developed for the text, many of the professors did not use the software, require the students to use them, or recommend suitable alternative packages.

Both the Clinebell and Clinebell (1995) and the Hammond, Hartman, and Brown (1996) studies suggest that no systematic effort is being made by the majority of business schools to emphasize computer technology and other business simulations as applied learning methods that can be used by business professors to make the learning experience more reflective of the workplace. Studies confirm that the use of computer simulations and other computer-based learning aids (Shaoul, 1989) helps the learner to develop some of the problem-solving, interpersonal, communication, and technology skills that employers seek in new employees (Amini, 1995; Engeholm & Bigel, 1996). Candy and Crebert (1991) defend the utilization of simulations as a means to foster practical, "hands-on" experience as well as teamwork.

Case-based Instruction

The application of the case-based method of instruction in business schools has a history dating back to the 1920s when Harvard Business School decided to adopt a teaching method that would emphasize a problem-centered approach based on real-life situations (McNair, 1954; Merseeth, 1991). However, the use of this teaching method is more popular in graduate professional schools of law, business, and medicine than in undergraduate programs (Ertner, Newby, & MacDougall, 1995). Libby (1991) defines a case as a "partial, historical, clinical study of a situation which has confronted a practicing administrator or managerial group" (p. 194). Carlson and Schodt (1995) stated that "cases are narrative accounts of actual, or realistic situations in which policymakers are confronted with a need to make decision" (p. 18). They further stated that "case-

method teaching is a group enterprise in which the emphasis is on self-discovery by the class, working together with the guidance of the instructor" (p. 18). The need for workers who can think and solve problems (Carnevale et al., 1990; U.S. Department of Labor, 1991) has resulted in the increased application of the case-studies teaching method in the undergraduate business schools. However, many professors seem to restrict the use of this method only to those senior management courses such as business and the environment and business policy. This state of affairs is partly due to students entering the business program in their sophomore year and the AACSB recommendation that most business courses be taught at the junior and senior levels.

Research conducted by Carlson and Schodt (1995), Ertmer, Newby, and MacDougall (1995), and Libby (1991) validates some of the merits frequently ascribed to case-based learning. Findings from these studies indicate that case-based instruction develops students' problem-solving skills, group-interaction skills, and communication skills and increases students' interest in the subject. Diamantes (1996) argued that case-based instruction allows for material to be covered in detail. Also, this type of instruction encourages greater involvement and interaction by the learner and promotes contextualized learning.

Although there is current research to support the merits of case-based learning (Ertmer et al., 1996; Diamantes, 1996), some researchers express reservations about its effectiveness with different learners. According to Foster and Bareiss (1995), there are five shortcomings of the standard case-based method of instruction. First, help for the student while he/she is working on the case is not always available. Second, the student

does not always get immediate feedback from the professor. Third, the student is not inclined to rigorously analyze the case if he/she believes the instructor will not read or evaluate their written report. Fourth, the unavailability of sufficient class time makes it difficult for the teacher to provide a detailed solution for the student. Fifth, students are sometimes motivated to analyze cases only for obtaining good grades, to impress the teacher, and to protect their egos. Foster and Bareiss (1995) are not the only academicians who have raised doubts about some of the merits of case-based instruction. Ertmer et al. (1995) concluded from their research that learners who were not self-regulated (the ability and motivation to implement, monitor, and evaluate various learning strategies for the purpose of facilitating knowledge growth) would find the case method frustrating. Also, when Libby (1991) conducted a study to determine the current level of case-study usage in undergraduate education, he ascertained that one of the impediments to a wider use of case study was the frustration students experienced in the process of analyzing the cases. He found that many students lacked the technical knowledge that is needed to solve problems. Also, there were undue physical and emotional demands made on the instructor. Carlson and Schodt (1995) and Valenchik (1995) found that using cases was time consuming and prevented them from covering other important topics in the course.

While these criticisms of the case method of instruction do have some merit (Libby, 1991), there are variations to the standard method that may reduce the possibility of some of these negative consequences. The use of case studies within a group setting is one variation. Furthermore, integrating case studies with business simulations.

classroom lectures, role playing, and group discussion can enhance their appeal to students with different learning styles (Diamantes, 1996; Foster & Bareiss, 1995; West & Watson, 1996).

Despite documented evidences delineating the merits of case-based learning, coupled with employers demand for those skills that are developed through case-based instruction (Van Horn, 1995; Wallhaus, 1996), the prevailing instructional methods in undergraduate business schools continue to be lectures, written assignments, and limited group activities (Carlson & Schodt, 1995). Business school professors need to recognize that the case-based instructional method should not be reserved for the senior-year management courses. Instead they should consider it one more tool in their repertoire of teaching methods that should be used in all classes.

Team Learning

According to Davis and Miller (1996), "in the last 15 years, businesses in the United States have increased their reliance on work groups or teams" (p. 69). U.S. businesses are not the only ones relying on team work to boost productivity. Elmuti and Kathawala (1997), Green and Seymour (1991), and Katzenbach and Smith (1994) have cited examples of the successful use of teams and teamwork in Japanese and European corporations. The growing reliance on small groups in the workplace has resulted in demands from employers for workers who are capable of working in a self-directed group environment (Carnevale et al., 1990; Dichter, 1991; Magney, 1995).

Consequently, higher education has little choice but to take seriously research

findings which suggest that cooperative learning is one of the most effective learning methods that can be used in the college classroom (Johnson, Johnson, & Smith, 1991; Wilson, 1996). Johnson et al. (1991) describe cooperative learning as "the instructional use of small groups so that students work together to maximize their own and each other's learning" (p. 25). Wilson (1996) reiterated this point by describing cooperative learning as "a method of instruction in which students work together in small groups to reach a common goal" (p. 27). Johnson et al., (1991) suggest five basic elements that must be included in a cooperative learning session: (1) positive interdependence (each member of the group needs the others to succeed individually and collectively); (2) face-to-face promotive interaction (students help and teach each other to make connections between past and present learning); (3) individual accountability (each member has an obligation to complete assigned task); (4) social skills (each group member should acquire and use interpersonal and leadership skills); and (5) group processing (activities that enhances team building and team effectiveness).

Wilson (1996) concluded, after his review of cooperative learning literature, that the effective use of these elements in cooperative learning classrooms reduces anxiety, improves social skills, and improves relationships among students of varied ethnic backgrounds. Hill and Ross (1996), in a study using communication classes, tested the effectiveness of cooperative learning using the five key elements of positive interdependence, face-to-face promotive interaction, individual accountability, social skills, and group process (Johnson et al., 1991). The researchers found that the students experienced less anxiety and stress when making their presentations. Also, they felt the

feedback they received from their group members made them better prepared.

Other studies conducted at the college level reveal similar findings. Manzer and Bialik (1997) in a study using four courses in management and economics at the School of Business and Management Sciences at Indiana University-Purdue, Fort Wayne, found that the team learning strategy promoted greater individual student effort and class attendance and greater interaction among students, as opposed to the teacher-dominated, lecture-oriented class. Furthermore, the study also revealed that there was greater social interaction among students outside of class, as the groups worked together to complete assigned tasks.

In a study of interdisciplinary teams composed of accounting and engineering students, Rogers and Stemkoski (1995) identified some positive effects and some challenges of team-based instruction. The students formed their teams, consisting of accountants and engineers, after which they were given the task of developing a water-slide park that could attract funding. The semester-long project enabled the students to experience first-hand the interpersonal and communication skills required of workers who must work in groups in the workplace. Findings from the study suggest that those groups that respected the abilities of each member and practiced teamwork produced the greatest achievements. Because the students were required to maintain journals, they were forced to do some reflective thinking as they communicated among themselves. The study also revealed that those groups in which individuals were unwilling to share their ideas performed poorly, experienced anxiety, and required frequent intervention by the facilitators.

In addition to the efficacy of cooperative learning strategies in the classroom, Holubec, Johnson, and Johnson (1992) studied the effectiveness of cooperative learning in promoting the retention of procedural knowledge. They studied students in the Air Traffic Controller Training School at the Naval Technical Training Center in Memphis, Tennessee. The researchers found no significant difference among the cooperative group and those trainees who were exposed to traditional instructional methods when they were administered a closed-book/recognition portion of an examination. However, they found the scores of the cooperative learning group to be significantly higher on the problem-solving portion of the same examination. Furthermore, on the total examination, the trainees in the cooperative learning group scored significantly higher than their counterparts who were exposed to the traditional lecture and individual work methods.

The findings of this study are significant considering that much of the technical training done in the workplace is to enhance procedural knowledge. Also, according to Magney (1995), many employers are now putting their workers in teams, and are providing some form of team building training. Therefore, if workers can be exposed to the merits and procedures of team-learning activities while they are in college, they may find the transition is smoother to the workplace as a learning environment (Candy & Crebert, 1991). Johnson et al. (1991) suggested that it does no good to train an engineer or accountant if the person does not have the teamwork skills needed to perform effectively in the workplace. The body of research on the efficacy of cooperative small-group learning in promoting teamwork and individual achievement among college learners is well established (Hill & Ross, 1996; Johnson et al., 1991; Rogers &

Stemkowski, 1995; Wilson, 1996).

Therefore more attention needs to be directed to the reasons why faculty in business schools seem reluctant to utilize this learning tool more frequently in the classroom. A major concern of some professors who have experimented with group work is how to encourage full participation by group members. Studies on cooperative learning clearly indicate that if professors were to properly apply the elements of cooperative learning, they will experience greater participation by group members. Group work is designed to incorporate the elements of individual accountability and positive interdependence. These are two features of cooperative learning which when properly accounted for eliminate the possibility of some students not contributing to the group's efforts (Kagan, 1994; Johnson et al., 1991; Joyce & Weil, 1994).

Wilson (1996) in his review of the cooperative learning literature found that some of the research seems to suggest that it was difficult for teachers to move from a teacher-centered to a learner-centered environment. It is logical to assume that this may be the result of the learning environment the teachers themselves were exposed to in college and professional school. He also highlighted the point that teachers who applied cooperative learning methods saw their role expanded. This point was reiterated by Hill and Ross (1996) who argued that to "structure, implement and monitor cooperative learning groups is an immensely time consuming activity" (p. 27). They further claimed that they worked harder as teachers when they used cooperative learning groups than when they used more traditional lecture/individualistic learning processes. Manzer and Bialik (1997) suggest that a team-learning instructional method "requires more intense

classroom management skills than does the traditional lecture method" (p. 34). Mangey (1995) cautions that those teachers who attempt to adopt cooperative learning models will experience tension as they revamp their syllabus and other classroom activities.

With these challenges, it is no surprise that many faculty are slow to include cooperative learning strategies in their repertoire of instructional methods. Nevertheless, the benefits to be derived from this teaching tool cannot be ignored if the business schools prepare to meet the challenges of the workplace.

Summary of Literature Review

The rapid advancement and availability of technology in the information, service, and manufacturing industries have made the global economic landscape more competitive. The ubiquity of the most advanced production processes has blurred the distinction of the goods and services produced by corporations. Consequently, corporations are relying more heavily on the skills and intellect of their workers to give them the edge needed to outperform their competitors in the areas of quality, price, time of delivery, and service (Wallhaus, 1996). In the studies reviewed, there seems to be a general acceptance by both employers and academia that for entry-level professionals to be able to make a meaningful contribution to their employers, they must possess the following skills: learning to learn, literacy, communication, thinking and problem solving, self-esteem, interpersonal and teamwork, leadership, and computer skills (Carnevale et al., 1990; Mehrens, 1989; Oneil, 1992; U.S. Department of Labor, 1991; Van Horn, 1995).

Findings from these studies suggest that employability skills can be successfully integrated in the curriculum if employers and the business schools work more closely. The business school curriculum needs to be integrated with the liberal arts component of the college curriculum if the schools are going to be successful in producing students with the breadth of knowledge and specialized skills needed for success (Gordon & Howell, 1959; Pierson, 1959; Porter & McKibbin, 1988). Wallhaus (1996) and Candy and Crebert (1991) recommend that the faculty in business schools need to rely less on the traditional teaching techniques and embrace a teaching paradigm that will make the learning environment a reflection of the workplace.

A review of studies done to identify innovative teaching strategies in use in the business curriculum indicates that students develop a deeper understanding of their courses when their teachers adopt contextual learning strategies such as case studies, cooperative learning (teamwork), and simulations. Also, students who have participated in internship programs seem to have a richer experience. While there seems to be a wider acceptance by business schools of the need for greater integration of the liberal arts and employability skills in the business curriculum, it appears as if many business schools and non-accredited schools are slow in taking up the challenge. These schools need to take a more proactive posture if they wish to remain viable entities in the 21st century.

CHAPTER III

RESEARCH METHODOLOGY

Type of Research

The purpose of this study was to investigate whether undergraduate schools of business are adequately preparing their students for the workplace. To achieve this purpose, the study measured the perceptions of both final-year undergraduate business students and their professors to determine the extent to which they believe employability skills are important to future success in the workplace, the extent to which those skills are integrated in the curriculum, the degree to which students possess those skills, and the strategies used to integrate those skills in the undergraduate business curriculum.

Design of the Study

This study employed the survey research method to ascertain from students and their professors their perceptions of the extent to which employability skills are integrated into the undergraduate business curriculum. Two instruments were used to collect the data. Both instruments were parallel in format and content. However, the student copy contained an additional section which focused on demographic characteristics such as their enrollment status, their work experience, and their academic major.

Samples

The samples used for this study were drawn from five tertiary institutions in the states of Michigan, Indiana, and Tennessee. The institutions in Indiana, Tennessee, and one of the universities in Michigan are privately operated. The other two institutions are large, publicly funded universities in the state of Michigan. While all five institutions offered undergraduate degrees in business administration, only one was AACSB accredited. This was one of the large public universities in the state of Michigan.

Although the small liberal arts college and the two private universities are sponsored and financed by religious denominations, they, along with the public universities, enrolled traditional undergraduate students. Their undergraduate business programs consisted primarily of students who enroll directly after completing high school. These students have little if any professional work experience in the corporate world. A review of the undergraduate catalogs of all five institutions revealed that the schools embraced the concept and importance of their students obtaining a liberal arts education. According to the catalogs, the liberal arts concept is operationalized through academic work, community service, and involvement in social organizations and agencies. This is done to develop and strengthen the physical, social, interpersonal, communication, and leadership skills of the students so as to prepare them to become responsible citizens in their communities.

The two public universities each graduate between 550 and 600 students with the BBA degree each year. From this population, I distributed 420 surveys to each of the public universities. The private university in Michigan had an enrollment of

approximately 50 final-year students in the school of business during the time the survey was distributed. Therefore, I distributed 50 surveys to this population. The institution in the state of Indiana had 20 final-year students, whereas the school in Tennessee had 45; therefore, a total of 65 instruments was distributed to both schools. Because the populations of the three private institutions were small, I sampled all the senior business students who were available in order to achieve statistical validity (Wunsch, 1986). Therefore, the total sample from all five institutions was 955 students.

The faculty sample was drawn from a total of 115 business professors from the five institutions. I distributed 40 surveys to each of the two public universities for a total of 80 instruments. From the 35 instruments that were distributed to the faculty at the three private institutions, 15 were distributed to the school in Michigan, whereas 10 each were distributed to the schools in the states of Indiana and Tennessee.

Instrumentation

The survey instruments used were developed by the researcher after an extensive search to locate suitable questionnaires proved unsuccessful. The instrument which was used to collect information from the students was divided into five sections. Section 1 requested information on the extent to which students perceived the skills that are important for success in the workplace. Section 2 requested information regarding the extent to which the students perceived those skills were integrated within their business courses. Section 3 requested information on the degree to which the students perceived they possess those skills. Section 4 requested information on the teaching strategies and

other techniques used to integrate employability skills across the business courses, and section 5 requested information on the students' work experience, employment, and enrollment status.

The instrument used to collect information from the professors was divided into four sections. Section 1 requested information regarding the extent to which professors perceived the skills that are important for success in the workplace. Section 2 requested information on the degree to which the professors perceived they integrated those skills in their course content. Section 3 requested information on the extent to which the professors perceived their students possess those skills, and section 4 requested information on the teaching strategies and techniques used to integrate those skills across the business curriculum.

The professor's questionnaire consisted of a total of 42 questions, whereas, the student copy consisted of a total of 46 questions. Based on the time of completion observed when the instruments were pilot tested, the students were able to complete their instrument between 15-20 minutes. It is anticipated that the professors would complete their questionnaire in a similar length of time.

It is important to note that the findings from this study, like all self-reported research, must be used with caution because self-reported studies are based on the respondents' own perceptions or their view of reality. It is not my intention to generalize the findings across all business schools and other undergraduate curriculum that were not the focus of the study.

Pilot Study

The instruments were initially distributed to selected faculty members in the School of Business at Andrews University and to the members of my dissertation committee. The reason for this pilot study was to procure content validity by having them critique and appraise the questionnaires to ensure that the instruments addressed all the areas that I had set out to investigate.

During the week beginning September 14, 1997, a pilot study was conducted among 20 students selected at the Andrews University School of Business. These students comprised third-year business students (juniors), MBA students, and MSA students of which 13 were juniors and 7 were graduate students. The purpose of this pilot study was to ascertain from the students if there were any ambiguities, inconsistencies, and lack of clarity in the questions. A second pilot was conducted during the week beginning September 29 among 12 of the original group of students. The purpose of this follow-up pilot test was to ensure that students had a clear understanding of the questions and that they were comfortable with the length of the survey. The results from both pilot studies revealed that students had no difficulties comprehending the questions. The students expressed preference for the final instrument because they felt it was shorter in length.

Variables

For the purpose of clarity and distinction, the variables were listed as follows:

1. The demographic variables are: (a) area of specialization, (b) employment

status, (c) enrollment status, and (d) work experience prior to enrolling in business program.

2. The other variables were (a) numeracy skills, (b) written communication skills, (c) oral communication skills, (d) interpersonal skills, (e) ethical and moral values, (f) thinking skills, (g) problem-solving skills, (h) learning-to-learn skills, (i) teamwork skills, (j) leadership skills, (k) work ethic, and (l) computer technology skills.

Data Collection Procedure

Letters requesting the participation of the schools were sent to the deans of the respective schools of business by the researcher and the chair of the dissertation committee. The five schools agreed to participate in the data collection process, which was done during fall 1997 with the understanding that their anonymity would be preserved. I used intact, convenience samples of students in those final-year courses such as business policy, operations management, financial management, auditing, managerial accounting, and other "capstone" courses that are offered in the senior year of the undergraduate business program.

In order to ensure consistency in the data collection process, the instruments and the cover letter outlining the instructions were sent to the dean at the schools of business at the five institutions. A self-addressed envelope was enclosed so that the persons who were responsible for coordinating the data collection were able to return the questionnaires by mail to the researcher. The institutions were asked to distribute the instruments in class and to collect them before the students exited the classrooms. Also, I

requested that the students who completed the surveys in a previous class were not allowed to do so in another class. After the instruments were collected from the students and faculty, they were delivered to the dean's office where they were placed in the self-addressed envelope and mailed to me.

Research Questions

The problem that was investigated is: What are the perceptions of final-year students and their professors regarding the importance, integration, possession, and strategies used to integrate employability skills in the undergraduate business curriculum? Answers were sought for the following research questions.

1. What employability skills do students and faculty perceive to be important?
2. What employability skills do students and faculty perceive were integrated throughout the business curriculum?
3. What employability skills do students and their faculty perceive the students possess?
4. What are the strategies students and faculty perceive were applied to integrate employability skills across the curriculum?

Null Hypotheses

Based on the research questions, eight hypotheses were generated to provide answers to the questions. The hypotheses were stated in the null form for statistical analysis.

Hypothesis 2: There is no significant difference in the perceptions of students and their professors within each of the five institutions regarding those skills they consider important for employment that were addressed in their respective business majors. I applied a t -test to determine if there was any mean difference between the population means.

Hypothesis 3: There is no significant difference in the perceptions of students and their professors within each of the five institutions regarding the degree of integration of employability skills in their respective business core classes. I applied a t -test to determine if there was any mean difference between the population means.

Hypothesis 4: There is no significant difference in the perceptions of students and their professors within each of the five institutions regarding the degree of integration of employability skills in their respective business majors. I applied a t -test to determine if there was any mean difference between the population means.

Hypothesis 5: There is no significant difference in the perceptions of students and their professors within each of the five institutions regarding the skills the students possess and the skills professors perceive the students possess in their respective business core classes. I applied a t -test to determine if there was any mean difference between the population means.

Hypothesis 6: There is no significant difference in the perceptions of students and their professors within each of the five institutions regarding the skills the students possess and the skills professors perceive the students possess in their respective business majors. I applied a t -test to determine if there was any mean difference between the

population means.

Hypothesis 7: There is no significant difference in the perceptions of students and their professors within each of the five institutions regarding the strategies used to integrate employability skills in their respective business core classes. I applied a *t*-test to determine if there was any mean difference between the population means.

Hypothesis 8: There is no significant difference in the perceptions of students and their professors within each of the five institutions regarding the strategies used to integrate employability skills in their respective business majors. I applied a *t*-test to determine if there was any mean difference between the population means.

Analysis of Data

This section of the study presents analyses that satisfied the purpose of the study. I used descriptive statistics and parametric tests to analyze the information that was collected. The parametric test used was the *t*-test of two independent means. Also, statistical ranking and descriptive analysis of the data from the five institutions were performed to provide answers for the research questions. Parametric tests are designed to test hypotheses about specific population parameters such as the population means and are very sensitive in detecting true differences that may exist in the sampled populations.

The *t*-test of means for two independent samples that was applied is a powerful analytical procedure that is useful when analyzing two independent samples to determine if their means are equal. The design of this study made the *t*-test an appropriate test statistics for testing the hypotheses.

With regard to the statistical ranking of the respondents' mean ratings of the employability skills, the following criteria were used to rank the responses in each of the four sections of the 5-point scale: for section 1, students and their professor were rated as follows: 1.00 - 2.75, little importance; 2.76 - 3.75, some importance; and 3.76 - 5.00, much importance. For section 2, students and their professors were rated as follows: 1.00 - 2.75, rarely integrated; 2.76 - 3.75, somewhat integrated; and 3.76 - 5.00, greatly integrated. For section 3, students and their professors were rated as follows: 1.00 - 2.75, little possession; 2.76 - 3.75, some possession; 3.76 - 5.00, much possession. For section 4, students and their professors were rated as follows: 1.00 - 2.75, rarely applied; 2.76 - 3.75, somewhat applied; 3.76 - 5.00, greatly applied.

The categories used for the purpose of making distinctions regarding the degree of importance, integration, and skills possession, and methods are *relative* expressions of emphases. Response categories such as "rarely," "somewhat," "much," "little," "some," and "greatly" can be perceived differently because they are not absolute terms.

CHAPTER IV

DESCRIPTIVE ANALYSIS OF DATA

This chapter is organized in three sections. Section 1 presents a descriptive analysis of the data, section 2 presents the findings from the research questions and the hypotheses; and section 3 presents a summary of the chapter.

The purpose of this study was to investigate if undergraduate schools of business are adequately preparing their students for the workplace. To achieve this purpose, the study measured the perceptions of both final-year undergraduate business students and their professors to determine the extent to which they believe employability skills are important for future success in the workplace, the extent to which those skills are integrated in the curriculum, the degree to which students possess those skills and the strategies used to integrate those skills in the undergraduate business curriculum.

Descriptive Analysis of the Population

The five institutions from which the data were collected comprised the following: institution A is a small private university in the state of Michigan. At the time the study was done, the institution was in AACSB candidacy status for accreditation. Institution B is a small private university in the state of Tennessee. Institution C is a small private

liberal arts college in the state of Indiana. Institution D is a large public university in the state of Michigan. Institution E is also a large public university in the state of Michigan. It was the only AACSB-accredited school in the study at the time the data were collected.

The sample for this study comprised 342 students and faculty from four universities and one liberal arts college. There were 955 questionnaires that were sent to final-year undergraduate business students of which 293 usable ones were returned, resulting in an acceptable return rate of 31.6% (see Table 1). There were 115 questionnaires that were sent to business professors of which 49 usable ones were returned resulting in an acceptable return rate of 43% (see Table 2). A follow-up sample of non-respondents was not feasible because of an agreement between the researcher and the schools that the data collection would be done from intact, convenience samples that met certain criteria with no recourse for a follow-up.

A comparison of the students based on their majors revealed that 27.7% majored in accounting; 14.7% majored in management, 22.9% in marketing, 17% in finance, and 17.7 % in areas such as computer science, economics, and business administration (see Table 3). Further analysis of the descriptive statistics revealed that the students from the four universities showed some similarities in the types of majors they pursued. For instance, accounting, management, and marketing were the majors that had the largest percentage enrollments among the students from the four universities (see Table 4).

TABLE 1

POPULATION OF STUDENTS BY INSTITUTIONS

Institution	No. of Students Sampled	No. of Valid Responses
A	50	32
B	45	31
C	20	11
D	420	102
E	420	117
Total	955	293

TABLE 2

POPULATION OF FACULTY BY INSTITUTIONS

Institution	No. of Professors Sampled	No. of Valid Responses
A	15	10
B	10	7
C	10	5
D	40	11
E	40	16
Total	115	49

TABLE 3
STUDENTS BY MAJOR

Major	Frequency	Percentage
Accounting	81	27.7
Management	43	14.7
Marketing	67	22.9
Finance	50	17.0
Other ^a	<u>52</u>	<u>17.7</u>
	293	100

^a Includes business administration, economics, and computer science.

TABLE 4
PERCENTAGE ENROLLMENT BY MAJOR

Institutions	Accounting	Management	Marketing	Finance	Other ^a
A	23	26	18	8	20
B	29	10	32	6	26
C	9	9	27	9	36
D	25	10	38	6	21
E	34	17	10	29	10

^a Includes business administration, economics, and computer science.

The reason institution C may have been an anomaly was due to the small population of final-year business students in this institution. It is important to note that at the time the survey was conducted, institution D did not have a 4-year-degree program in economics. Therefore, those students from institution D who chose majors that were categorized as "other" (Table 4), were either business administration or computer science majors.

At the time the survey was conducted, 13% of the respondents had full-time employment, 53% had part-time employment, while 34% were not employed (see Table 5). Table 6 shows the breakdown of enrollment in the five institutions. The lowest full-time enrollment was 88% by institution D. The three private institutions between 97%

TABLE 5
EMPLOYMENT STATUS WHILE IN SCHOOL

Employment Status	Frequency	Percentage
Full-time employment	37	13
Part-time employment	156	53
No employment	<u>100</u>	<u>34</u>
	293	100

TABLE 6
PERCENTAGE OF STUDENT ENROLLMENT
STATUS BY SCHOOL

Institution	Full-time	Percentage	Part-time	Percentage
A	31	97	1	3
B	31	100	-	0
C	11	100	-	0
D	90	88	14	14
E	106	91	9	8

and 100% full-time enrollment among their senior business students. Overall, from a total of 293 student respondents without professional work experience, 92% indicated that they were enrolled full-time in their business programs.

From the 401 students who returned the surveys, 293 or 73% were usable. The other 108 or 27% included 24 which were incomplete questionnaires and 84 which did not meet the no-experience criterion (see Table 7).

In order to better understand if the students could perceive what employability skills their schools taught them, as opposed to whether they may have obtained those skills in a professional work environment, the descriptive statistics were analyzed to ascertain the percentage of students who had prior professional work experience and the schools which those students were from. Table 7 shows that 73% of the students had no professional work experience prior to enrolling in their business programs. Although

10% indicated they had at least 1 year of work experience, 12% had 2 or more years of professional work experience, and 5% of the surveys were incomplete. The research was restricted to the 73% of valid respondents who had no professional work experience. Of 955 questionnaires that were sent out, 401 were returned, of which 24 were incomplete, 84 failed the no-experience criterion leaving 293 that were usable.

TABLE 7
STUDENTS' PROFESSIONAL WORK EXPERIENCE
PRIOR TO ENROLLING IN BUSINESS PROGRAM

No. of Years	No. of Students	Percentage
0	293	73
1	40	10
2+	48	12
	<u>24</u>	<u>5^a</u>
	401	100

^a These surveys were incomplete and failed no-experience criterion.

Answers to Research Questions

Four research questions were addressed for the purpose of this study. The criteria used by the researcher to categorize the students' and faculty's responses are arbitrary for the purpose of making distinctions regarding the degree of importance, integration, and possession of the skills, and the methods used to integrate those skills. Therefore, the reader should not assume that the categories are precise depictions of what the respondents reported.

Research Question 1

Research question 1 asked: *What employability skills do students and faculty perceive to be important?*

Findings

The following criteria were used to rate the students' and their faculty's response to section 1 of the 5-point Likert scale that addressed the importance of employability skills: 1.00 - 2.75, little importance; 2.76 - 3.75, some importance; and 3.76 - 5.00, much importance.

Students perceived that the 12 employability skills with mean scores above 3.75 were of much importance across the business core classes. However, written communication skills with a mean score of 4.45 was ranked 1; oral communication skills with a mean score of 4.44 was ranked 2; interpersonal skills with a mean score of 4.38 was ranked 3; thinking skills with a mean score of 4.34 was ranked 4; work ethic with a mean score of 4.31 was ranked 5; computer technology skills with a mean score of 4.26 was ranked 6; problem-solving skills with a mean score of 4.25 was ranked 7; ethical and moral values with a mean score of 4.25 was ranked 8; teamwork skills with a mean score of 4.20 was ranked 9; numeracy skills with a mean score of 3.95 was ranked 10; lifelong learning skills with a mean score of 3.93 was ranked 11; and leadership skills with a mean score of 3.89 was ranked 12. These data are summarized in Table 8.

Students also perceived the 12 employability skills with mean scores above 3.75 were of much importance across the business majors. However, thinking skills with a

TABLE 8
STUDENTS' PERCEPTION OF THE IMPORTANCE OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES (N=293)

Variables	<i>M</i>	<i>SD</i>	Rank
2. Written Comm. Skills	4.45*	0.79	1
3. Oral Comm. Skills	4.44*	0.79	2
4. Interpersonal Skills	4.38*	0.85	3
6. Thinking Skills	4.34*	0.79	4
8. Work Ethic	4.31*	0.89	5
12. Computer Technology Skills	4.26*	0.94	6
10. Problem-solving Skills	4.25*	0.86	7
5. Ethical & Moral Values	4.25*	0.92	8
11. Teamwork Skills	4.20*	0.99	9
1. Numeracy Skills	3.95*	0.88	10
7. Lifelong Learning	3.93*	0.99	11
9. Leadership Skills	3.89*	0.98	12

* Met criteria for "much importance" category.

mean score of 4.61 was ranked 1; problem-solving skills with a mean score of 4.56 was ranked 2; oral communication skills with a mean score of 4.56 was ranked 3; interpersonal skills with a mean score of 4.55 was ranked 4; written communication skills with a mean score of 4.52 was ranked 5; work ethic with a mean score of 4.44 was ranked 6; computer technology skills with a mean score of 4.44 was ranked 7; teamwork skills with a mean score of 4.37 was ranked 8; ethical and moral values with a mean score of 4.33 was ranked 9; leadership skills with a mean score of 4.18 was ranked 10; lifelong learning skills with a mean score of 4.16 was ranked 11; and numeracy skills with a mean score of 3.99 was ranked 12. These data are summarized in Table 9.

Faculty perceived that the 12 employability skills with mean scores above 3.75 were of much importance across the business core classes. However, thinking skills with a mean score of 4.73 was ranked 1; written communication skills with a mean score of 4.73 was ranked 2; oral communication skills with a mean score of 4.59 was ranked 3; ethical and moral values with a mean score of 4.59 was ranked 4; work ethic with a mean score of 4.57 was ranked 5; interpersonal skills with a mean score of 4.49 was ranked 6; numeracy skills with a mean score of 4.41 was ranked 7; problem-solving skills with a mean score of 4.31 was ranked 8; teamwork skills with a mean score of 4.31 was ranked 9; computer technology skills with a mean score of 4.27 was ranked 10; leadership skills with a mean score of 4.14 was ranked 11; and lifelong learning with a mean score of 4.00 was ranked 12. These data are summarized in Table 10.

Faculty also perceived the twelve employability skills with mean scores above 3.75 were of much importance across the business majors. However, thinking skills with

TABLE 9
STUDENTS' PERCEPTION OF THE IMPORTANCE OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS (N=293)

Variables	<i>M</i>	<i>SD</i>	Rank
6. Thinking Skills	4.61*	0.58	1
10. Problem-solving Skills	4.56*	0.66	2
3. Oral Comm. Skills	4.56*	0.69	3
4. Interpersonal Skills	4.55*	0.69	4
2. Written Comm. Skills	4.52*	0.76	5
8. Work Ethic	4.44*	0.81	6
12. Computer Technology Skills	4.44*	0.84	7
11. Teamwork Skills	4.37*	0.91	8
5. Ethical & Moral Values	4.33*	0.86	9
9. Leadership Skills	4.18*	0.87	10
7. Lifelong Learning	4.16*	0.94	11
1. Numeracy Skills	3.99*	0.94	12

* Met criteria for "much importance" category.

TABLE 10
FACULTY'S PERCEPTION OF THE IMPORTANCE OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES (N= 49)

Variables	<i>M</i>	<i>SD</i>	Rank
6. Thinking Skills	4.73*	0.67	1
2. Written Comm. Skills	4.73*	0.70	2
3. Oral Comm. Skills	4.59*	0.76	3
5. Ethical & Moral Values	4.59*	0.79	4
8. Work Ethic	4.57*	0.76	5
4. Interpersonal Skills	4.49*	0.79	6
1. Numeracy Skills	4.41*	0.70	7
10. Problem-solving Skills	4.31*	0.85	8
11. Teamwork Skills	4.31*	0.85	9
12. Computer Technology Skills	4.27*	0.91	10
9. Leadership Skills	4.14*	0.84	11
7. Lifelong Learning	4.00*	0.94	12

* Met criteria for "much importance" category.

a mean score of 4.83 was ranked 1: written communication skills with a mean score of 4.71 was ranked 2: ethical and moral values with a mean score of 4.67 was ranked 3: problem-solving skills with a mean score of 4.67 was ranked 4: work ethic with a mean score of 4.59 was ranked 5: interpersonal skills with a mean score of 4.59 was ranked 6: oral communication skills with a mean score of 4.55 was ranked 7: numeracy skills with a mean score of 4.47 was ranked 8: computer technology skills with a mean score of 4.43 was ranked 9: teamwork skills with a mean score of 4.42 was ranked 10: lifelong learning with a mean score of 4.24 was ranked 11: and leadership skills with a mean score of 4.12 was ranked 12. These data are summarized in Table 11.

Research Question 2

Research question 2 asked: *What employability skills do students and faculty perceive were integrated throughout the business curriculum?*

Findings

The following criteria were used to rate the students' and their faculty's response to section 2 of the 5-point Likert scale that addressed the integration of employability skills: 1.00 - 2.75, rarely integrated; 2.76 - 3.75, somewhat integrated; and 3.76 - 5.00, greatly integrated.

Students perceived teamwork skills and problem-solving skills with mean scores above 3.75 were greatly integrated across the business core classes. However, thinking skills, written communication skills, numeracy skills, oral communication skills, interpersonal skills, computer technology skills, ethical and moral values, leadership

TABLE 11
FACULTY'S PERCEPTION OF THE IMPORTANCE OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS (N=49)

Variables	<i>M</i>	<i>SD</i>	Rank
6. Thinking Skills	4.83*	0.63	1
2. Written Comm. Skills	4.71*	0.71	2
5. Ethical & Moral Values	4.67*	0.69	3
10. Problem-solving Skills	4.67*	0.80	4
8. Work Ethic	4.59*	0.76	5
4. Interpersonal Skills	4.59*	0.81	6
3. Oral Comm. Skills	4.55*	0.74	7
1. Numeracy Skills	4.47*	0.79	8
12. Computer Technology Skills	4.43*	0.96	9
11. Teamwork Skills	4.42*	0.85	10
7. Lifelong Learning	4.24*	0.95	11
9. Leadership Skills	4.12*	0.90	12

* Met criteria for "much importance" category.

skills, work ethic, and lifelong learning with mean scores between 2.76 and 3.75 were somewhat integrated across the business core classes.

Teamwork skills with a mean score of 3.79 was ranked 1; problem-solving skills with a mean score of 3.77 was ranked 2; thinking skills with a mean score of 3.69 was ranked 3; written communication skills with a mean score of 3.66 was ranked 4; numeracy skills with a mean score of 3.58 was ranked 5; oral communication skills with a mean score 3.48 was ranked 6; interpersonal skills with a mean score of 3.36 was ranked 7; computer technology skills with a mean score of 3.29 was ranked 8; ethical and moral values with a mean score of 3.26 was ranked 9; leadership skills with a mean score of 3.25 was ranked 10; work ethic with a mean score of 3.24 was ranked 11; and lifelong learning with a mean score of 3.03 was ranked 12. These data are summarized in Table 12.

Students perceived that problem-solving skills, teamwork skills, and thinking skills with mean scores above 3.75 were greatly integrated across the business majors. They perceived that written communication skills, numeracy skills, oral communication skills, interpersonal skills, work ethic, ethical and moral values, computer technology skills, leadership skills and lifelong learning with mean scores between 2.76 and 3.75 were somewhat integrated across the business majors.

Problem-solving skills with a mean score of 4.09 was ranked 1; teamwork skills with a mean score of 4.01 was ranked 2; thinking skills with a mean score of 3.96 was ranked 3; written communication skills with a mean score of 3.71 was ranked 4; numeracy skills with a mean score of 3.71 was ranked 5; oral communication skills with

TABLE 12
STUDENTS' PERCEPTION OF THE DEGREE TO WHICH EMPLOYABILITY
SKILLS WERE INTEGRATED ACROSS THE BUSINESS CORE CLASSES (N=293)

Variables	<i>M</i>	<i>SD</i>	Rank
11. Teamwork Skills	3.79*	1.03	1
10. Problem-solving Skills	3.77*	0.94	2
6. Thinking Skills	3.69	0.99	3
2. Written Comm. Skills	3.66	0.91	4
1. Numeracy Skills	3.58	0.92	5
3. Oral Comm. Skills	3.48	1.04	6
4. Interpersonal Skills	3.36	1.08	7
12. Computer Technology Skills	3.29	1.13	8
5. Ethical & Moral Values	3.26	1.16	9
9. Leadership Skills	3.25	0.96	10
8. Work Ethic	3.24	1.09	11
7. Lifelong Learning	3.03	1.06	12

* Met criteria for "greatly integrated" category.

a mean score of 3.61 was ranked 6; interpersonal skills with a mean score of 3.50 was ranked 7; work ethic with a mean score of 3.45 was ranked 8; ethical and moral values with a mean score of 3.38 was ranked 9; computer technology skills with a mean score of 3.37 was ranked 10; leadership skills with a mean score of 3.36 was ranked 11; and lifelong learning with a mean score of 3.25 was ranked 12. These data are summarized in Table 13.

Faculty perceived that problem-solving skills, thinking skills, numeracy skills, written communication skills, ethical and moral values, and work ethic with mean scores above 3.75 were greatly integrated across the business core classes. Whereas, teamwork skills, oral communication skills, interpersonal skills, computer technology skills, leadership skills, and lifelong learning skills with mean scores between 2.76 and 3.75 were somewhat integrated across the business core classes.

Problem-solving skills with a mean score of 4.31 was ranked 1; thinking skills with a mean score of 4.27 was ranked 2; numeracy skills with a mean score of 4.08 was ranked 3; written communication skills with a mean score of 4.08 was ranked 4; ethical and moral values with a mean score of 4.06 was ranked 5; work ethic with a mean score of 3.76 was ranked 6; teamwork skills with a mean score of 3.71 was also ranked 7; oral communication skills with a mean score of 3.71 was ranked 8; interpersonal skills with a mean score of 3.69 was ranked 9; computer technology skills with a mean score of 3.53 was ranked 10; leadership skills with a mean score of 3.45 was ranked 11; and lifelong learning skills with a mean score of 3.35 was ranked 12. These data are summarized in Table 14.

TABLE 13
STUDENTS' PERCEPTION OF THE DEGREE TO WHICH EMPLOYABILITY
SKILLS WERE INTEGRATED ACROSS THE BUSINESS MAJORS (N=293)

Variables	<i>M</i>	<i>SD</i>	Rank
10. Problem-solving Skills	4.09*	0.87	1
11. Teamwork Skills	4.01*	0.90	2
6. Thinking Skills	3.96*	0.90	3
2. Written Comm. Skills	3.71	0.93	4
1. Numeracy Skills	3.71	1.02	5
3. Oral Comm. Skills	3.61	1.13	6
4. Interpersonal Skills	3.50	1.09	7
8. Work Ethic	3.45	1.11	8
5. Ethical & Moral Values	3.38	1.16	9
12. Computer Technology Skills	3.37	1.22	10
9. Leadership Skills	3.36	1.05	11
7. Lifelong Learning	3.25	1.12	12

* Met criteria for "greatly integrated" category.

TABLE 14
FACULTY'S PERCEPTION OF THE DEGREE TO WHICH EMPLOYABILITY
SKILLS WERE INTEGRATED ACROSS THE BUSINESS CORE CLASSES (N= 49)

Variables	<i>M</i>	<i>SD</i>	Rank
10. Problem-solving Skills	4.31*	0.85	1
6. Thinking Skills	4.27*	0.93	2
1. Numeracy Skills	4.08*	0.84	3
2. Written Comm. Skills	4.08*	1.08	4
5. Ethical & Moral Values	4.06*	1.05	5
8. Work Ethic	3.76*	0.94	6
11. Teamwork Skills	3.71	0.96	7
3. Oral Comm. Skills	3.71	1.17	8
4. Interpersonal Skills	3.69	1.07	9
12. Computer Technology Skills	3.53	1.14	10
9. Leadership Skills	3.45	0.94	11
7. Lifelong Learning	3.35	1.03	12

* Met criteria for "greatly integrated" category.

Faculty perceived that thinking skills, problem-solving skills, numeracy skills, ethical and moral values, written communication skills, teamwork skills, interpersonal skills, work ethic, and oral communication skills with mean scores above 3.75 were fully integrated across the business majors. Whereas, computer technology skills, lifelong learning skills and leadership skills with mean scores between 2.76 and 3.75 were somewhat integrated across the business majors.

Thinking skills with a mean score of 4.41 was ranked 1; problem-solving skills with a mean score of 4.37 was ranked 2; numeracy skills with a mean score of 4.19 was ranked 3; ethical and moral values with a mean score of 4.19 was ranked 4; written communication skills with a mean score of 4.16 was ranked 5; teamwork skills with a mean score of 4.06 was ranked 6; interpersonal skills with a mean score of 4.04 was ranked 7; work ethic with a mean score of 3.92 was ranked 8; oral communication skills with a mean score of 3.88 was ranked 9; computer technology skills with a mean score of 3.73 was ranked 10; lifelong learning skills with a mean score of 3.67 was ranked 11; and leadership skills with a mean score of 3.55 was ranked 12. These data are summarized in Table 15.

Research Question 3

Research question 3 asked: *What employability skills do students and their professors perceive the students possess?*

Findings

The following criteria were used to rate the students' and their faculty's response

TABLE 15
FACULTY'S PERCEPTION OF THE DEGREE TO WHICH EMPLOYABILITY
SKILLS WERE INTEGRATED ACROSS THE BUSINESS MAJORS (N= 49)

Variables	<i>M</i>	<i>SD</i>	Rank
6. Thinking Skills	4.41*	0.86	1
10. Problem-solving Skills	4.37*	0.83	2
1. Numeracy Skills	4.19*	0.94	3
5. Ethical & Moral Values	4.19*	1.00	4
2. Written Comm. Skills	4.16*	1.07	5
11. Teamwork Skills	4.06*	0.85	6
4. Interpersonal Skills	4.04*	0.91	7
8. Work Ethic	3.92*	0.95	8
3. Oral Comm. Skills	3.88*	1.17	9
12. Computer Technology Skills	3.73	1.17	10
7. Lifelong Learning	3.67	1.04	11
9. Leadership Skills	3.55	0.98	12

* Met criteria for "greatly integrated" category.

to section 3 of the 5-point Likert scale that addressed the possession of employability skills: 1.00 - 2.75, little possession; 2.76 - 3.75, some possession; and 3.76 - 5.00, much possession.

Students perceived that they had much possession of ethical and moral values, work ethic, teamwork skills, thinking skills, interpersonal skills, problem-solving skills, written communication skills, numeracy skills, leadership skills, oral communication skills, and lifelong learning skills with mean scores above 3.75 across the business core classes. Whereas, they perceived they had some possession of computer technology skills with a mean score of 3.71 across the business core classes.

Ethical and moral values with a mean score of 4.24 was ranked 1; work ethic with a mean score of 4.18 was ranked 2; teamwork skills with mean score of 4.15 was ranked 3; thinking skills with a mean score of 4.09 was ranked 4; interpersonal skills with a mean score of 4.04 was ranked 5; problem-solving skills with a mean score of 4.00 was ranked 6; written communication skills with a mean score of 3.97 was ranked 7; numeracy skills with a mean score of 3.93 was ranked 8; leadership skills with a mean score of 3.89 was ranked 9; oral communication skills with a mean score of 3.86 was ranked 10; lifelong learning skills with a mean score of 3.84 was ranked 11; and computer technology skills with a mean score of 3.71 was ranked 12. These data are summarized in Table 16.

Students perceived that they had much possession of ethical and moral values, work ethic, teamwork skills, thinking skills, interpersonal skills, problem-solving skills, leadership skills, written communication skills, lifelong learning skills, numeracy skills,

TABLE 16
STUDENTS' PERCEPTION OF THE EMPLOYABILITY SKILLS
THEY POSSESS ACROSS THE BUSINESS CORE CLASSES (N=293)

Variables	<i>M</i>	<i>SD</i>	Rank
5. Ethical & Moral Values	4.24*	0.89	1
8. Work Ethic	4.18*	0.88	2
11. Teamwork Skills	4.15*	0.92	3
6. Thinking Skills	4.09*	0.80	4
4. Interpersonal Skills	4.04*	0.90	5
10. Problem-solving Skills	4.00*	0.82	6
2. Written Comm. Skills	3.97*	0.79	7
1. Numeracy Skills	3.93*	0.87	8
9. Leadership Skills	3.89*	0.92	9
3. Oral Comm. Skills	3.86*	0.89	10
7. Lifelong Learning	3.84*	0.91	11
12. Computer Technology Skills	3.71	1.02	12

* Met criteria for "much possession" category.

and oral communication skills across the business majors because the mean scores were above 3.75. Whereas, they perceived that they had some possession of computer technology skills across the business majors because the mean score was 3.75.

Ethical and moral values with a mean score of 4.35 was ranked 1; work ethic with a mean score of 4.35 was ranked 2; teamwork skills with a mean score of 4.31 was ranked 3; thinking skills with a mean score of 4.21 was ranked 4; interpersonal skills with a mean score of 4.16 was ranked 5; problem-solving skills with a mean score of 4.14 was ranked 6; leadership skills with a mean score of 4.04 was ranked 7; written communication skills with a mean score of 4.02 was ranked 8; lifelong learning skills with a mean score of 3.99 was ranked 9; numeracy skills with a mean score of 3.98 was ranked 10; oral communication skills with a mean score of 3.96 was ranked 11; and computer technology skills with a mean score of 3.75 was ranked 12. These data are summarized in Table 17.

Faculty perceived that their students did not have much possession of any of the twelve employability skills in the business core classes because all the mean scores were less than 3.76. Instead, they perceived that their students had some possession of ethical and moral values, teamwork skills, interpersonal skills, problem-solving skills, thinking skills, oral communication skills, computer technology skills, work ethic, leadership skills, lifelong learning skills, numeracy skills, and written communication skills because the mean scores were between 2.76 and 3.75.

TABLE 17
STUDENTS' PERCEPTION OF THE EMPLOYABILITY SKILLS
THEY POSSESS ACROSS THE BUSINESS MAJORS (N=293)

Variables	<i>M</i>	<i>SD</i>	Rank
5. Ethical & Moral Values	4.35*	0.81	1
8. Work Ethic	4.35*	0.82	2
11. Teamwork Skills	4.31*	0.83	3
6. Thinking Skills	4.21*	0.74	4
4. Interpersonal Skills	4.16*	0.88	5
10. Problem-solving Skills	4.14*	0.78	6
9. Leadership Skills	4.04*	0.89	7
2. Written Comm. Skills	4.02*	0.77	8
7. Lifelong Learning	3.99*	0.91	9
1. Numeracy Skills	3.98*	0.87	10
3. Oral Comm. Skills	3.96*	0.87	11
12. Computer Technology Skills	3.75	1.01	12

* Met criteria for "much possession" category.

Ethical and moral values with a mean score of 3.73 was ranked 1; teamwork skills with a mean score of 3.57 was ranked 2; interpersonal skills with a mean score of 3.53 was ranked 3; problem-solving skills with a mean score of 3.45 was ranked 4; thinking skills with a mean score of 3.43 was ranked 5; oral communication skills with a mean score of 3.39 was ranked 6; computer technology skills with a mean score of 3.37 was ranked 7; work ethic with a mean score of 3.35 was ranked 8; leadership skills with a mean score of 3.22 was ranked 9; lifelong learning skills with a mean score of 3.18 was ranked 10; numeracy skills with a mean score of 3.16 was ranked 11; and written communication skills with a mean score of 3.08 was ranked 12. These data are summarized in Table 18.

Faculty perceived that their students had much possession of interpersonal skills, teamwork skills, problem-solving skills and ethical and moral values with mean scores above 3.76 across the business majors. Whereas, they perceived their students had some possession of thinking skills, computer technology skills, work ethic, oral communication skills, lifelong learning skills, numeracy skills, leadership skills, and written communication skills with mean scores between 2.76 and 3.75 across the business majors.

Interpersonal skills with a mean score of 3.84 was ranked 1; teamwork skills with a mean score of 3.84 was ranked 2; problem-solving skills with a mean score of 3.80 was ranked 3; ethical and moral values with a mean score of 3.78 was ranked 4; thinking skills with a mean score of 3.69 was ranked 5; computer technology skills with a mean

TABLE 18
FACULTY'S PERCEPTION OF THE EMPLOYABILITY SKILLS THEIR
STUDENTS POSSESS ACROSS THE BUSINESS CORE CLASSES (N= 49)

Variables	<i>M</i>	<i>SD</i>	Rank
5. Ethical & Moral Values	3.73	0.93	1
11.Teamwork Skills	3.57	0.91	2
4. Interpersonal Skills	3.53	0.92	3
10.Problem-solving Skills	3.45	0.84	4
6. Thinking Skills	3.43	0.84	5
3. Oral Comm. Skills	3.39	1.06	6
12.Computer Technology Skills	3.37	0.81	7
8. Work Ethic	3.35	0.97	8
9. Leadership Skills	3.22	0.80	9
7. Lifelong Learning	3.18	0.86	10
1. Numeracy Skills	3.16	0.96	11
2. Written Comm. Skills	3.08	0.86	12

* Met criteria for "much possession" category.

score of 3.69 was ranked 6; work ethic with a mean score of 3.61 was ranked 7; oral communication skills with a mean score of 3.47 was ranked 8; lifelong learning skills with a mean score of 3.37 was ranked 9; numeracy skills with a mean score of 3.35 was ranked 10; leadership skills with a mean score of 3.31 was ranked 11; and written communication skills with a mean score of 3.18 was ranked 12. These data are summarized in Table 19.

Research Question 4

Research question 4 asked: *What are the strategies students and faculty perceive were applied to integrate employability skills across the curriculum?*

Findings

The following criteria were used to rate the students' and their faculty's response to section 4 of the 5-point Likert scale that addressed the strategies used to integrate employability skills: 1.00 - 2.75, rarely applied; 2.76 - 3.75, somewhat applied; and 3.76 - 5.00, greatly applied.

Students perceived that the lecture method with mean score above 3.75 was greatly applied by their professors to integrate employability skills across the business core classes. Whereas, group work, case studies, internship experiences, and individual presentations by students with mean scores between 2.76 and 3.75 were somewhat applied across the business core classes. However, students perceived that business simulations with computers with a mean score of 2.64 were rarely applied by their professors to integrate employability skills across the business core classes.

TABLE 19
FACULTY'S PERCEPTION OF THE EMPLOYABILITY SKILLS THEIR
STUDENTS POSSESS ACROSS THE BUSINESS MAJORS (N= 49)

Variables	<i>M</i>	<i>SD</i>	Rank
4. Interpersonal Skills	3.84*	0.77	1
11. Teamwork Skills	3.84*	0.83	2
10. Problem-solving Skills	3.80*	0.79	3
5. Ethical & Moral Values	3.78*	0.92	4
6. Thinking Skills	3.69	0.80	5
12. Computer Technology Skills	3.69	0.92	6
8. Work Ethic	3.61	0.89	7
3. Oral Comm. Skills	3.47	1.00	8
7. Lifelong Learning	3.37	0.78	9
1. Numeracy Skills	3.35	0.97	10
9. Leadership Skills	3.31	0.88	11
2. Written Comm. Skills	3.18	0.83	12

* Met criteria for "much possession" category.

The lecture method with a mean score of 4.11 was ranked 1; encouraging students to work in groups with a mean score of 3.75 was ranked 2; case studies with a mean score of 3.35 was ranked 3; internship experiences with a mean score of 3.34 was ranked 4; individual presentations by students with a mean score of 3.25 was ranked 5; and business simulations with computers with a mean score of 2.64 was ranked 6. These data are summarized in Table 20.

Students perceived that the lecture method, encouraging students to work in groups and case studies with mean scores above 3.75 were greatly applied by their professors to integrate employability skills across the business majors. Whereas, internship experiences, individual presentations by students with mean scores between 2.76 and 3.75 were somewhat applied across the business majors. However, students perceived that business simulations with computers with a mean score of 2.72 were rarely applied by their professors to integrate employability skills across the business majors.

The lecture method with a mean score of 4.03 was ranked 1; encouraging students to work in groups with a mean score of 4.01 was ranked 2; case studies with a mean score of 3.86 was ranked 3; internship experiences with a mean score of 3.73 was ranked 4; individual presentations by students with a mean score of 3.62 was ranked 5; and business simulations with computers with a mean score of 2.72 was ranked 6. These data are summarized in Table 21.

Faculty perceived that the lecture method with a mean score of 4.02 was greatly applied by them to integrate employability skills across the business core classes. Whereas, encouraging students to work in groups, individual presentations by students,

TABLE 20

STUDENTS' PERCEPTION OF THE STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES (N= 293)

Variables	<i>M</i>	<i>SD</i>	Rank
2. Lecture method	4.11*	0.83	1
1. Students encouraged to work in groups	3.75	1.02	2
4. Case studies	3.35	1.17	3
6. Internship experiences	3.34	1.49	4
3. Individual presentation by students	3.25	1.13	5
5. Business simulations with computers	2.64	1.30	6

* Met criteria for "greatly applied" category.

TABLE 21
STUDENTS' PERCEPTION OF THE STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS (N= 293)

Variables	<i>M</i>	<i>SD</i>	Rank
2. Lecture method	4.03*	0.93	1
1. Students encouraged to work in groups	4.01*	0.96	2
4. Case studies	3.86*	1.09	3
6. Internship experiences	3.73	1.44	4
3. Individual presentation by students	3.62	1.19	5
5. Business simulations with computers	2.72	1.34	6

* Met criteria for "greatly applied" category.

and case studies with mean scores between 2.76 and 3.75 were somewhat applied across the business core classes. However, internship experiences, and business simulations with computers with mean scores below 2.76 were rarely applied by them to integrate employability skills across the business core classes.

The lecture method with a mean score of 4.02 was ranked 1; encouraging students to work in groups with a mean score of 3.53 was ranked 2; individual presentations by students with a mean score of 3.19 was ranked 3; case studies with a mean score of 3.10 was ranked 4; internship experiences with a mean score of 2.52 was ranked 5; and business simulations with computers with a mean score of 2.41 was ranked 6. These data are summarized in Table 22.

Faculty perceived that encouraging students to work in groups, the lecture method, individual presentation by students and case studies with mean scores above 3.75 were greatly applied by them to integrate employability skills across the business majors. Whereas, they perceived that internship experiences with mean score of 3.18 was somewhat applied across the business majors. However, they perceived that business simulations with computers with a mean score of 2.55 were never rarely to integrate employability skills across the business majors.

Encouraging students to work in groups with a mean score of 4.06 was ranked 1; the lecture method with a mean score of 3.94 was ranked 2; individual presentation by students with a mean score of 3.90 was ranked 3; case studies with a mean score of 3.80 was ranked 4; internship experiences with a mean score of 3.18 was ranked 5; and

business simulations with computers with a mean score of 2.55 was ranked 6. These data are summarized in Table 23.

TABLE 22

FACULTY'S PERCEPTION OF THE STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES (N= 49)

<u>Variables</u>	<u>M</u>	<u>SD</u>	<u>Rank</u>
2. Lecture method	4.02*	0.97	1
1. Students encouraged to work in groups	3.53	1.32	2
3. Individual presentation by students	3.19	1.45	3
4. Case studies	3.10	1.39	4
6. Internship experiences	2.52	1.29	5
5. Business simulations with computers	2.41	1.24	6

* Met criteria for "greatly applied" category.

TABLE 23
FACULTY'S PERCEPTION OF THE STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS (N= 49)

<i>Variables</i>	<i>M</i>	<i>SD</i>	<i>Rank</i>
1. Students encouraged to work in groups	4.06*	0.96	1
2. Lecture method	3.94*	0.99	2
3. Individual presentation by students	3.90*	1.17	3
4. Case studies	3.80*	1.17	4
6. Internship experiences	3.18	1.38	5
5. Business simulations with computers	2.55	1.26	6

* Met criteria for "greatly applied" category.

Findings From Tests of Hypotheses

Eight hypotheses were tested for this study in order to provide answers for the four research questions. The hypotheses were tested with the application of two independent sample *t*-tests.

Null Hypothesis 1

Hypothesis 1 states: *There is no difference in the perceptions of students and their professors within each of the five institutions regarding those skills they consider important for employment that were addressed across their respective business core classes.*

Findings

Students and faculty in institution A differed on the variable numeracy skills across the business core classes with $t = 2.11$, $p = .044$. The faculty had a mean score of 4.5000 which was significantly larger than the students' mean score of 4.0000. Therefore, the null hypothesis was rejected on this variable and retained on the other 11 variables. These findings are summarized in Table 24.

Students and faculty in institution B differed on the following variables across the business core classes: thinking skills with $t = 4.89$, $p = .000$ and faculty's mean score of 5.0000 was significantly larger than the students' mean score of 4.4516; problem-solving skills with $t = 5.06$, $p = .000$ and faculty's mean score of 5.0000 was significantly larger than the students' mean score of 4.3548; and teamwork skills with $t = 2.76$, $p = .012$ and

TABLE 24

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION A REGARDING PERCEIVED IMPORTANCE OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.5000	0.527	40	2.11	.044*
	student	4.0000	0.950			
2. Written Comm. Skills	faculty	4.8000	0.422	40	1.46	.156
	student	4.5313	0.718			
3. Oral Comm. Skills	faculty	4.6000	0.516	40	0.39	.701
	student	4.5000	0.762			
4. Interpersonal Skills	faculty	4.1000	0.568	40	-1.43	.171
	student	4.4063	0.665			
5. Ethical & Moral Values	faculty	4.7000	0.483	40	1.38	.175
	student	4.4063	0.615			
6. Thinking Skills	faculty	4.6000	0.516	40	0.39	.701
	student	4.5000	0.762			
7. Lifelong Learning	faculty	3.7000	0.675	40	-0.17	.863
	student	3.7500	1.078			
8. Work Ethics	faculty	4.7000	0.483	40	1.65	.108
	student	4.3226	0.945			
9. Leadership Skills	faculty	3.6000	0.516	40	-1.01	.320
	student	3.9375	1.014			
10. Problem-solving Skills	faculty	4.2000	0.632	40	-0.74	.465
	student	4.3871	0.715			
11. Teamwork Skills	faculty	4.1000	0.568	40	-1.95	.058
	student	4.5313	0.621			
12. Computer Technology Skills	faculty	4.4000	0.699	40	0.30	.763
	student	4.3125	0.821			

Note. For faculty, *n* = 10; for students, *n* = 32.

* Significant at the .05 level (Reject *H*₀).

faculty's mean score of 4.8571 was significantly larger than the students' mean score of 4.2903 . The null hypothesis was rejected on these three variables and retained on the other 9 variables. These findings are summarized in Table 25.

Students and faculty in institution C differed on the variable thinking skills across the business core classes with $t = 2.76$, and $p = .020$. The faculty's mean score of 5.0000 was significantly larger than the students' mean score of 4.1818. Therefore, the null hypothesis was rejected on this variable and retained on the other 11 variables. These findings are summarized in Table 26.

Students and faculty in institution D did not differ on any of the 12 variables across the business core classes. Therefore, the null hypothesis was retained on all the variables. The findings are summarized in Table 27.

Students and faculty in institution E differed on the following variables across the business core classes: numeracy skills with $t = 3.84$, $p = .001$ and faculty 's mean score of 4.5625 was significantly larger than the students' mean score of 3.9744; written communication skills with $t = 5.54$, $p = .000$ and faculty's mean score of 4.9375 was significantly larger than the students' mean score of 4.3590; oral communication skills with $t = 2.22$, $p = .034$ and faculty's mean score of 4.6875 was significantly larger than the students' mean score of 4.3675; interpersonal skills with $t = 5.26$, $p = .000$ and faculty's mean score of 4.8750 was significantly larger than the students' mean score of 4.2393; ethical and moral values with $t = 4.03$, $p = .000$ and faculty's mean score of

TABLE 25

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION B REGARDING PERCEIVED IMPORTANCE OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.2857	0.951	36	1.41	.166
	student	3.7667	0.858			
2. Written Comm. Skills	faculty	4.7143	0.756	36	1.25	.219
	student	4.2581	0.893			
3. Oral Comm. Skills	faculty	4.7143	0.756	36	0.50	.624
	student	4.5806	0.620			
4. Interpersonal Skills	faculty	4.5714	0.787	36	-0.04	.971
	student	4.5806	0.564			
5. Ethical & Moral Values	faculty	4.7143	0.756	36	0.30	.762
	student	4.6129	0.803			
6. Thinking Skills	faculty	5.0000	0.000	36	4.89	.000*
	student	4.4516	0.624			
7. Lifelong Learning	faculty	4.1429	0.900	36	-0.07	.945
	student	4.1667	0.791			
8. Work Ethic	faculty	4.7143	0.488	36	0.41	.687
	student	4.6129	0.615			
9. Leadership Skills	faculty	4.5714	0.787	36	1.50	.143
	student	4.0645	0.814			
10. Problem-solving Skills	faculty	5.0000	0.000	36	5.06	.000*
	student	4.3548	0.709			
11. Teamwork Skills	faculty	4.8571	0.378	36	2.76	.012*
	student	4.2903	0.824			
12. Computer Technology Skills	faculty	4.4286	0.787	36	0.12	.906
	student	4.3871	0.844			

Note. For faculty, *n* = 7; for students, *n* = 31.

* Significant at the .05 level (Reject *H*₀).

TABLE 26

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION C REGARDING PERCEIVED IMPORTANCE OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.4000	0.458	14	0.58	.572
	student	4.1818	0.751			
2. Written Comm. Skills	faculty	4.4000	0.548	14	0.33	.750
	student	4.2727	1.009			
3. Oral Comm. Skills	faculty	4.4000	0.548	14	0.57	.580
	student	4.1818	0.982			
4. Interpersonal Skills	faculty	4.4000	0.548	14	0.88	.392
	student	4.000	1.265			
5. Ethical & Moral Values	faculty	4.8000	0.447	14	1.73	.106
	student	4.1818	0.982			
6. Thinking Skills	faculty	5.0000	0.000	14	2.76	.020*
	student	4.1818	0.982			
7. Lifelong Learning	faculty	4.2000	0.447	14	0.94	.362
	student	3.8182	1.168			
8. Work Ethic	faculty	4.4000	0.548	14	0.82	.426
	student	4.0909	0.944			
9. Leadership Skills	faculty	3.8000	0.837	14	0.65	.525
	student	3.4545	1.036			
10. Problem-solving Skills	faculty	4.6000	0.548	14	2.01	.064
	student	3.7273	1.191			
11. Teamwork Skills	faculty	4.2000	0.837	14	0.22	.828
	student	4.0909	0.944			
12. Computer Technology Skills	faculty	4.0000	1.000	14	0.83	.423
	student	3.3636	1.567			

Note. For faculty, *n* = 5; for students, *n* = 11.

* Significant at the .05 level (Reject *H*₀).

TABLE 27

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION D REGARDING PERCEIVED IMPORTANCE OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.1818	0.982	111	0.94	.351
	student	3.9216	0.864			
2. Written Comm. Skills	faculty	4.5455	1.214	111	-0.20	.849
	student	4.6176	0.564			
3. Oral Comm. Skills	faculty	4.4545	1.214	111	-0.19	.853
	student	4.5000	0.714			
4. Interpersonal Skills	faculty	4.2727	1.272	111	-0.63	.542
	student	4.5196	0.805			
5. Ethical & Moral Values	faculty	4.1818	1.328	111	-0.30	.766
	student	4.2745	0.935			
6. Thinking Skills	faculty	4.1818	1.168	111	-0.89	.378
	student	4.4020	0.735			
7. Lifelong Learning	faculty	3.5455	1.293	111	-1.56	.123
	student	4.0490	0.989			
8. Work Ethic	faculty	4.4545	1.214	111	-0.24	.815
	student	4.5446	0.807			
9. Leadership Skills	faculty	3.7273	0.905	111	-1.24	.236
	student	4.0882	1.006			
10. Problem-solving Skills	faculty	4.2727	1.191	111	-0.12	.903
	student	4.3069	0.845			
11. Teamwork Skills	faculty	4.0000	1.265	111	-0.71	.478
	student	4.2451	1.066			
12. Computer Technology Skills	faculty	4.0000	1.265	111	-1.00	.337
	student	4.3922	0.846			

Note. For faculty, *n* = 11; for students, *n* = 102.

* Significant at the .05 level (Reject *H*₀).

4.6875 was significantly larger than the students' mean score of 4.0855: thinking skills with $t = 9.71$, $p = .000$ and faculty's mean score of 5.0000 was significantly larger than the students' mean score of 4.2393: lifelong learning with $t = 2.09$, $p = .039$ and faculty's mean score of 4.3750 was significantly larger than the students' mean score of 3.8362: work ethic with $t = 2.12$, $p = .036$ and faculty's mean score of 4.5625 was significantly larger than the students' mean score of 4.0427: and leadership skills with $t = 5.63$, $p = .000$ and faculty's mean score of 4.6875 was significantly larger than the students' mean score of 3.7094. The null hypothesis was rejected on these variables and retained on the other 3 variables. These findings are summarized in Table 28.

Null Hypothesis 2

Hypothesis 2 states: *There is no difference in the perceptions of students and their professors within each of the five institutions regarding those skills they consider important for employment that were addressed across their respective business majors.*

Findings

Students and faculty in institution A differed on the following variables across the business majors: oral communication skills with $t = -2.11$, $p = .041$ and faculty's mean score of 4.4000 was significantly smaller than the students' mean score of 4.7500: thinking skills with $t = 3.48$, $p = .002$ and faculty's mean score of 5.0000 was significantly larger than the students' mean score of 4.7188: and problem-solving skills with $t = 3.23$, $p = .003$ and faculty's mean score of 5.0000 was significantly larger than

TABLE 28

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION E REGARDING PERCEIVED IMPORTANCE OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.5625	0.512	131	3.84	.001*
	student	3.9744	0.905			
2. Written Comm. Skills	faculty	4.9375	0.250	131	5.54	.000*
	student	4.3590	0.905			
3. Oral Comm. Skills	faculty	4.6875	0.479	131	2.22	.034*
	student	4.3675	0.867			
4. Interpersonal Skills	faculty	4.8750	0.342	131	5.26	.000*
	student	4.2393	0.925			
5. Ethical & Moral Values	faculty	4.6875	0.479	131	4.03	.000*
	student	4.0855	0.970			
6. Thinking Skills	faculty	5.0000	0.000	131	9.71	.000*
	student	4.2393	0.847			
7. Lifelong Learning	faculty	4.3750	0.806	131	2.09	.039*
	student	3.8362	0.986			
8. Work Ethic	faculty	4.5625	0.727	131	2.12	.036*
	student	4.0427	0.941			
9. Leadership Skills	faculty	4.6875	0.602	131	5.63	.000*
	student	3.7094	0.938			
10. Problem-solving Skills	faculty	4.4375	0.814	131	1.05	.295
	student	4.1897	0.894			
11. Teamwork Skills	faculty	4.4375	0.727	131	1.45	.150
	student	4.0517	1.029			
12. Computer Technology Skills	faculty	4.3750	0.806	131	0.75	.457
	student	4.1880	0.955			

Note. For faculty, *n* = 16; for students, *n* = 117.

* Significant at the .05 level (Reject *H*₀).

the students' mean score of 4.6129. The null hypothesis was rejected on these variables and retained on the other 10 variables. These findings are summarized in Table 29.

Students and faculty in institution B differed on the variable problem-solving skills across the business majors with $t = 4.89$, $p = .000$ and faculty's mean score of 5.0000 was significantly larger than the students' mean score of 4.4516. Therefore, the null hypothesis was rejected on this variable and retained on the other 11 variables. These findings are summarized in Table 30.

Students and faculty in institution C did not differ on any of the 12 variables in the business majors. Therefore, the null hypothesis was retained on all the variables. The findings are summarized in Table 31.

Students and faculty in institution D differed on the variable leadership skills across the business majors with $t = -2.06$, $p = .041$ and faculty's mean score of 3.8182 was significantly smaller than the students' mean score of 4.3725. Therefore, the null hypothesis was rejected on this variable and retained on the other 11 variables. These findings are summarized in Table 32.

Students and faculty in institution E differed on the following variables across the business majors: numeracy skills with $t = 2.72$, $p = .007$ and faculty's mean score of 4.6875 was significantly larger than the students' mean score of 4.0609; written communication skills with $t = 5.44$, $p = .000$ and faculty's mean score of 4.9333 was significantly larger than the students' mean score of 4.3590; oral communication skills with $t = 2.40$, $p = .023$ and faculty's mean score of 4.7500 was significantly larger than

TABLE 29

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION A REGARDING THE PERCEIVED IMPORTANCE OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.4000	0.699	40	0.95	.347
	student	4.0625	1.045			
2. Written Comm. Skills	faculty	4.7000	0.483	40	-0.09	.927
	student	4.7188	0.581			
3. Oral Comm. Skills	faculty	4.4000	0.516	40	-2.11	.041*
	student	4.7500	0.440			
4. Interpersonal Skills	faculty	4.5000	0.527	40	0.00	1.000
	student	4.5000	0.622			
5. Ethical & Moral Values	faculty	4.7000	0.483	40	1.84	.077
	student	4.3125	0.821			
6. Thinking Skills	faculty	5.0000	0.000	40	3.48	.002*
	student	4.7188	0.457			
7. Lifelong Learning	faculty	4.3000	0.675	40	0.93	.359
	student	4.0313	1.092			
8. Work Ethic	faculty	4.6000	0.516	40	0.80	.427
	student	4.3548	0.915			
9. Leadership Skills	faculty	3.6000	0.699	40	-1.96	.057
	student	4.1875	0.859			
10. Problem-solving Skills	faculty	5.0000	0.000	40	3.23	.003*
	student	4.6129	0.667			
11. Teamwork Skills	faculty	4.0000	0.816	40	-1.95	.058
	student	4.5000	0.672			
12. Computer Technology Skills	faculty	4.4000	0.966	40	0.36	.720
	student	4.2813	0.888			

Note. For faculty, *n* = 10; for students, *n* = 32

* Significant at the .05 level (Reject *H*₀).

TABLE 30

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION B REGARDING PERCEIVED IMPORTANCE OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy skills	faculty	4.2857	0.756	36	1.29	.206
	student	3.8000	0.925			
2. Written Comm. Skills	faculty	4.7143	0.488	36	1.26	.228
	student	4.4194	0.807			
3. Oral Comm. Skills	faculty	4.5714	0.516	36	0.23	.822
	student	4.5161	0.724			
4. Interpersonal Skills	faculty	4.7143	0.488	36	0.59	.563
	student	4.5806	0.720			
5. Ethical & moral values	faculty	4.7143	0.488	36	0.62	.548
	student	4.5806	0.620			
6. Thinking Skills	faculty	4.8571	0.378	36	1.82	.094
	student	4.5484	0.506			
7. Lifelong Learning	faculty	4.2857	0.951	36	0.98	.332
	student	3.8276	1.136			
8. Work Ethics	faculty	4.7143	0.488	36	1.50	.155
	student	4.3667	0.765			
9. Leadership Skills	faculty	4.4286	0.787	36	0.42	.676
	student	4.2903	0.783			
10. Problem-solving skills	faculty	5.0000	0.000	36	4.89	.000*
	student	4.4516	0.624			
11. Teamwork Skills	faculty	4.5714	0.535	36	1.59	.134
	student	4.1613	0.898			
12. Computer Technology Skills	faculty	4.7143	0.488	36	2.04	.055
	student	4.1935	0.980			

Note. For faculty, *n* = 7; for students, *n* = 31.

* Significant at the .05 level (Reject *H*₀).

TABLE 31

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION C REGARDING PERCEIVED IMPORTANCE OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.2000	0.837	14	0.24	.812
	student	4.0909	0.831			
2. Written Comm. Skills	faculty	4.4000	0.894	14	-0.12	.906
	student	4.4545	0.820			
3. Oral Comm. Skills	faculty	4.4000	0.894	14	-0.12	.906
	student	4.4545	0.820			
4. Interpersonal Skills	faculty	4.0000	1.414	14	-0.98	.378
	student	4.6364	0.505			
5. Ethical & Moral Values	faculty	4.8000	0.477	14	1.20	.254
	student	4.4545	0.688			
6. Thinking Skills	faculty	5.0000	0.000	14	1.79	.104
	student	4.6364	0.674			
7. Lifelong Learning	faculty	4.4000	0.548	14	-0.17	.868
	student	4.4545	0.688			
8. Work Ethic	faculty	4.6000	0.548	14	0.16	.879
	student	4.5455	0.688			
9. Leadership Skills	faculty	3.6000	0.894	14	-1.52	.150
	student	4.2727	0.786			
10. Problem-solving Skills	faculty	4.4000	0.894	14	-0.55	.604
	student	4.6364	0.505			
11. Teamwork Skills	faculty	4.4000	0.894	14	-0.55	.604
	student	4.6364	0.505			
12. Computer Technology Skills	faculty	3.8000	1.304	14	-0.30	.771
	student	4.0000	1.000			

Note. For faculty, *n* = 5; for students, *n* = 11.

* Significant at the .05 level (Reject *H*₀).

TABLE 32

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION D REGARDING PERCEIVED IMPORTANCE OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.4545	1.214	111	1.65	.102
	student	3.9314	0.978			
2. Written Comm. Skills	faculty	4.5455	1.214	111	-0.35	.730
	student	4.6765	0.566			
3. Oral Comm. Skills	faculty	4.4545	1.214	111	-0.63	.544
	student	4.6863	0.526			
4. Interpersonal Skills	faculty	4.4545	1.214	111	-0.65	.528
	student	4.6961	0.541			
5. Ethical & Moral Values	faculty	4.5455	1.214	111	0.46	.650
	student	4.4216	0.814			
6. Thinking Skills	faculty	4.3636	1.206	111	-0.80	.443
	student	4.6569	0.536			
7. Lifelong Learning	faculty	3.9091	1.446	111	-1.25	.213
	student	4.2941	0.907			
8. Work Ethics	faculty	4.5455	1.214	111	-0.37	.718
	student	4.6832	0.599			
9. Leadership Skills	faculty	3.8182	1.079	111	-2.06	.041*
	student	4.3725	0.820			
10. Problem-solving Skills	faculty	4.5455	1.214	111	-0.37	.717
	student	4.6832	0.546			
11. Teamwork Skills	faculty	4.3000	1.337	111	-0.64	.539
	student	4.5743	0.804			
12. Computer Technology Skills	faculty	4.4545	1.214	111	-0.63	.545
	student	4.6863	0.597			

Note. For faculty, *n* = 11; for students, *n* = 102.

* Significant at the .05 level (Reject *H*₀).

the students' mean score of 4.4274; interpersonal skills with $t = 4.09$, $p = .000$ and faculty's mean score of 4.8750 was significantly larger than the students' mean score of 4.4103; ethical and moral values with $t = 3.36$, $p = .002$ and faculty's mean score of 4.6875 was significantly larger than students' mean score of 4.1880; thinking skills with $t = 7.13$, $p = .000$ and faculty's mean score of 5.0000 was significantly larger than students mean score of 4.5641; leadership skills with $t = 4.12$, $p = .000$ and faculty's mean score of 4.6875 was significantly larger than the students' mean score of 3.9744; and teamwork skills with $t = 3.35$, $p = .002$ and faculty's mean score of 4.6875 was significantly larger than students' mean score of 4.1739. The null hypothesis was rejected on these variables and retained on the other 4 variables. These findings are summarized in Table 33.

Null Hypothesis 3

Hypothesis 3 states: *There is no difference in the perceptions of students and their professors within each of the five institutions regarding the degree of integration of employability skills across their respective business core classes.*

Findings

Students and faculty in institution A differed on the following variables across the business core classes: thinking skills with $t = 2.09$, $p = .043$ and faculty's mean score of 4.4000 was significantly larger than the students' mean score of 3.6667; and problem-solving skills with $t = 2.67$, $p = .011$ and faculty's mean score of 4.6000 was significantly

TABLE 33

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION E REGARDING THE PERCEIVED IMPORTANCE OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.6875	0.479	131	2.72	.007*
	student	4.0609	0.901			
2. Written Comm. Skills	faculty	4.9333	0.258	131	5.44	.000*
	student	4.3590	0.885			
3. Oral Comm. Skills	faculty	4.7500	0.447	131	2.40	.023*
	student	4.4274	0.813			
4. Interpersonal Skills	faculty	4.8750	0.342	131	4.09	.000*
	student	4.4103	0.811			
5. Ethical & Moral Values	faculty	4.6875	0.479	131	3.36	.002*
	student	4.1880	0.955			
6. Thinking Skills	faculty	5.0000	0.000	131	7.13	.000*
	student	4.5641	0.662			
7. Lifelong Learning	faculty	4.3750	0.806	131	1.06	.293
	student	4.1293	0.880			
8. Work Ethic	faculty	4.5625	0.727	131	1.47	.156
	student	4.2672	0.917			
9. Leadership Skills	faculty	4.6875	0.602	131	4.12	.000*
	student	3.9744	0.923			
10. Problem-solving Skills	faculty	4.5000	0.816	131	0.15	.882
	student	4.4701	0.749			
11. Teamwork Skills	faculty	4.6875	0.479	131	3.35	.002*
	student	4.1739	1.028			
12. Computer Technology Skills	faculty	4.5000	0.816	131	0.55	.584
	student	4.3675	0.915			

* Significant at the .05 level (Reject H_0).

Note. For faculty, $n = 16$; for students, $n = 117$.

larger than students' mean score of 3.7097. The null hypothesis was rejected on these two variables and retained on the other 10 variables. These findings are summarized in Table 34.

Students and faculty in institution B differed on the following variables across the business core classes: numeracy skills with $t = 3.86$, $p = .002$ and faculty's mean score of 4.4286 was significantly larger than the students' mean score of 3.4516; written communication skills with $t = 3.14$, $p = .009$ and faculty's mean score of 3.4516; thinking skills with $t = 3.62$, $p = .002$ and faculty's mean score of 4.7143 was significantly larger than the students' mean score of 3.6667; work ethic with $t = 3.48$, $p = .002$ and faculty's mean score of 4.5714 was significantly larger than students' mean score of 3.5806; leadership skills with $t = 2.24$, $p = .039$ and faculty's mean score of 4.0000 was significantly larger than the students' mean score of 3.3548; and problem-solving skills with $t = 2.92$, $p = .010$ and faculty's mean score of 4.7143 was significantly larger than students' mean score of 4.0000. The null hypothesis was rejected on these variables and retained on the other 6 variables. These findings are summarized in Table 35.

Students and faculty in institution C differed on the following variables across the business core classes: ethical and moral values with $t = 3.00$, $p = .012$ and faculty's mean score of 4.4000 was significantly larger than the students' mean score of 3.3636; and problem-solving skills with $t = 3.37$, $p = .005$ and faculty's mean score of 4.4000 was significantly larger than the students' mean score of 3.2727. The null hypothesis was rejected on these variables and retained on the other 10 variables. These findings are summarized in Table 36.

TABLE 34

TESTS OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION A REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.1000	0.738	40	0.93	.356
	student	3.8387	0.779			
2. Written Comm. Skills	faculty	3.8000	0.789	40	0.56	.579
	student	4.5313	0.955			
3. Oral Comm. Skills	faculty	3.6000	0.699	40	0.39	.698
	student	3.4839	1.092			
4. Interpersonal Skills	faculty	3.5000	1.080	40	0.31	.755
	student	3.3667	1.189			
5. Ethical & Moral Values	faculty	4.3000	0.823	40	1.90	.065
	student	3.6452	0.985			
6. Thinking Skills	faculty	4.4000	0.699	40	2.09	.043*
	student	3.6667	1.028			
7. Lifelong Learning	faculty	3.5000	0.972	40	0.95	.348
	student	3.0968	1.221			
8. Work Ethic	faculty	3.8000	0.919	40	0.97	.337
	student	3.4194	1.119			
9. Leadership Skills	faculty	3.4000	0.699	40	0.22	.829
	student	3.3333	1.155			
10. Problem-solving Skills	faculty	4.6000	0.699	40	2.67	.011*
	student	3.7097	0.973			
11. Teamwork Skills	faculty	3.8000	0.789	40	1.07	.290
	student	3.4194	1.025			
12. Computer Technology Skills	faculty	3.6000	0.699	40	0.06	.949
	student	3.5806	1.119			

Note. For faculty, *n* = 10; for students, *n* = 32.

* Significant at the .05 level (Reject *H*₀).

TABLE 35

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION B REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty student	4.4286 3.4516	0.535 0.850	36	3.86	.002*
2. Written Comm. Skills	faculty student	4.5714 3.4516	0.787 1.091	36	3.14	.009*
3. Oral Comm. Skills	faculty student	4.2857 3.5806	0.951 0.923	36	1.82	.078
4. Interpersonal Skills	faculty student	4.1667 3.3548	0.983 1.199	36	1.78	.112
5. Ethical & Moral Values	faculty student	4.5714 3.8387	0.787 1.003	36	2.11	.059
6. Thinking Skills	faculty student	4.7143 3.6667	0.488 0.946	36	3.62	.002*
7. Lifelong Learning	faculty student	3.7143 3.1613	0.951 1.157	36	1.17	.248
8. Work Ethic	faculty student	4.5714 3.5806	0.535 1.119	36	3.48	.002*
9. Leadership Skills	faculty student	4.0000 3.3548	0.577 1.050	36	2.24	.039*
10. Problem-solving Skills	faculty student	4.7143 4.0000	0.488 0.894	36	2.92	.010*
11. Teamwork Skills	faculty student	4.0000 3.8710	0.816 0.991	36	0.36	.724
12. Computer Technology Skills	faculty student	3.7143 3.2258	0.951 1.146	36	1.05	.303

Note. For faculty, *n* = 7; for students, *n* = 31.

* Significant at the .05 level (Reject *H*₀).

TABLE 36

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION C REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	3.6000	1.140	14	1.40	.214
	student	2.8182	0.751			
2. Written Comm. Skills	faculty	3.6000	1.342	14	0.37	.725
	student	3.3636	0.674			
3. Oral Comm. Skills	faculty	3.4000	0.140	14	0.78	.477
	student	3.0000	0.000			
4. Interpersonal Skills	faculty	3.4000	1.342	14	0.06	.956
	student	3.3636	0.505			
5. Ethical & Moral Values	faculty	4.4000	0.548	14	3.00	.012*
	student	3.3636	0.809			
6. Thinking Skills	faculty	4.4000	0.894	14	1.38	.188
	student	3.7273	0.905			
7. Lifelong Learning	faculty	3.2000	0.837	14	0.99	.339
	student	2.7273	0.905			
8. Work Ethic	faculty	3.2000	0.837	14	-0.14	.891
	student	3.2727	1.191			
9. Leadership Skills	faculty	3.2000	1.095	14	1.34	.202
	student	2.5455	0.820			
10. Problem-solving Skills	faculty	4.4000	0.548	14	3.37	.005*
	student	3.2727	0.647			
11. Teamwork Skills	faculty	3.4000	1.140	14	0.86	.421
	student	2.9091	0.831			
12. Computer Technology Skills	faculty	3.6000	1.517	14	1.09	.325
	student	2.8182	0.751			

Note. For faculty, *n* = 5; for students, *n* = 11.

* Significant at the .05 level (Reject *H*₀).

Students and faculty in institution D did not differ on any of the variables in the business core classes. Therefore, the null hypothesis was retained on all the variables. The findings are summarized in Table 37.

Students and faculty in institution E differed on the following variables: written communication skills with $t = 4.29$, $p = .000$ and faculty's mean score of 4.6250 was significantly larger than the students' mean score of 3.6838; interpersonal skills with $t = 2.32$, $p = .030$ and faculty's mean score of 3.8750 was significantly larger than the students' mean score of 3.2696; ethical and moral values with $t = 3.12$, $p = .002$ and faculty's mean score of 4.1250 was significantly larger than the students' mean score of 3.2105; thinking skills with $t = 3.44$, $p = .002$ and faculty's mean score of 4.3750 was significantly larger than the students' mean score of 3.6154; lifelong learning with $t = 2.39$, $p = .018$ and faculty's mean score of 3.5000 was significantly larger than the students' mean score of 2.8621; work ethic with $t = 2.47$, $p = .015$ and faculty's mean score of 3.6875 was significantly larger than the students' mean score of 3.0342; and problem-solving skills with $t = 3.45$, $p = .002$ and faculty's mean score of 4.3125 was significantly larger than the students' mean score of 3.6325 in the business core classes. The null hypothesis was rejected on these variables and retained on the other 5 variables. These findings are summarized in Table 38.

Null Hypothesis 4

Hypothesis 4 states: *There is no difference in the perceptions of students and their*

TABLE 37

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION D REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.6000	1.000	111	1.65	.102
	student	3.5098	0.931			
2. Written Comm. Skills	faculty	3.4545	1.293	111	-0.70	.496
	student	3.7353	0.820			
3. Oral Comm. Skills	faculty	3.4545	1.508	111	-0.58	.573
	student	3.7255	1.036			
4. Interpersonal Skills	faculty	3.4545	1.214	111	0.00	.998
	student	3.4554	1.025			
5. Ethical & Moral Values	faculty	3.2727	1.272	111	0.65	.516
	student	3.0098	1.270			
6. Thinking Skills	faculty	3.6364	1.286	111	-0.30	.773
	student	3.7549	1.009			
7. Lifelong Learning	faculty	2.8182	1.168	111	-1.12	.266
	student	3.1961	1.053			
8. Work Ethic	faculty	3.5455	0.934	111	0.73	.476
	student	3.3235	1.118			
9. Leadership Skills	faculty	3.0000	1.183	111	-1.36	.178
	student	3.3922	0.881			
10. Problem-solving Skills	faculty	3.7273	1.191	111	-0.58	.575
	student	3.9412	0.921			
11. Teamwork Skills	faculty	3.3636	0.924	111	-1.20	.251
	student	3.7228	1.087			
12. Computer Technology Skills	faculty	3.2727	1.421	111	0.26	.797
	student	3.1667	1.283			

Note. For faculty, *n* = 11; for students, *n* = 32.

* Significant at the .05 level (Reject *H*₀).

TABLE 38

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION E REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.1250	0.806	131	1.85	.066
	student	3.6724	0.930			
2. Written Comm. Skills	faculty	4.6250	0.806	131	4.29	.000*
	student	3.6838	0.934			
3. Oral Comm. Skills	faculty	3.8125	1.276	131	1.82	.071
	student	3.2821	1.065			
4. Interpersonal Skills	faculty	3.8750	0.957	131	2.07	.040*
	student	3.2696	1.111			
5. Ethical & Moral Values	faculty	4.1250	1.025	131	3.12	.002*
	student	3.2105	1.109			
6. Thinking Skills	faculty	4.3750	0.806	131	3.44	.002*
	student	3.6154	0.981			
7. Lifelong Learning	faculty	3.5000	1.033	131	2.39	.018*
	student	2.8621	0.995			
8. Work Ethic	faculty	3.6875	0.873	131	2.47	.015*
	student	3.0342	1.008			
9. Leadership Skills	faculty	3.6250	0.885	131	1.89	.061
	student	3.1538	0.943			
10. Problem-solving Skills	faculty	4.3125	0.704	131	3.45	.002*
	student	3.6325	0.952			
11. Teamwork Skills	faculty	3.8750	1.088	131	-0.50	.624
	student	4.0172	0.942			
12. Computer Technology Skills	faculty	3.5625	1.209	131	0.56	.580
	student	3.3846	0.990			

Note. For faculty, *n* = 16; for students, *n* = 117.

* Significant at the .05 level (Reject *H*₀).

professors within each of the five institutions regarding the degree of integration of employability skills across their respective business majors.

Findings

Students and faculty in institution A differed on the following variables across the business majors: ethical and moral values with $t = 4.30$, $p = .000$ and faculty's mean score of 4.5556 was significantly larger than the students' mean score of 3.5161; problem-solving skills with $t = 2.39$, $p = .022$ and faculty's mean score of 4.7000 was significantly larger than the students' mean score of 3.8387. The null hypothesis was rejected on these variables and retained on the other 10 variables. These findings are summarized in Table 39.

Students and faculty in institution B differed on the following variables across the business majors: written communication skills with $t = 2.37$, $p = .023$ and faculty's mean score of 4.4286 was significantly larger than the students' mean score of 3.4194; thinking skills with $t = 4.73$, $p = .000$ and faculty's mean score of 4.8571 was significantly larger than the students mean score of 3.8387; work ethic with $t = 2.08$, $p = .044$ and faculty's mean score of 4.4286 was significantly larger than the students' mean score of 3.5161; and problem-solving skills with $t = 2.92$, $p = .009$ and faculty's mean score of 4.7143 was significantly larger than the students' mean score of 3.9677. The null hypothesis was rejected on these variables and retained on the other 6 variables. These findings are summarized in Table 40.

TABLE 39

TESTS OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION A REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy skills	faculty	4.2000	0.919	40	0.78	.441
	student	3.9333	0.944			
2. Written Comm. Skills	faculty	4.1000	0.738	40	1.29	.205
	student	3.6774	0.945			
3. Oral Comm. Skills	faculty	3.7000	0.699	40	0.59	.560
	student	3.4839	1.061			
4. Interpersonal Skills	faculty	3.7000	1.059	40	0.62	.542
	student	3.4333	1.223			
5. Ethical & moral values	faculty	4.5556	0.527	40	4.30	.000*
	student	3.5161	0.926			
6. Thinking Skills	faculty	4.5000	0.707	40	1.94	.060
	student	3.9333	0.828			
7. Lifelong Learning	faculty	3.7778	0.972	40	1.53	.133
	student	3.0968	1.221			
8. Work Ethics	faculty	3.8000	0.919	40	0.82	.415
	student	3.4839	1.092			
9. Leadership Skills	faculty	3.6000	0.843	40	1.10	.280
	student	3.1667	1.147			
10. Problem-solving skills	faculty	4.7000	0.483	40	2.39	.022*
	student	3.8387	1.098			
11. Teamwork Skills	faculty	3.8000	0.919	40	0.17	.864
	student	3.7419	0.930			
12. Computer Technology Skills	faculty	3.9000	0.994	40	1.13	.266
	student	3.4516	1.121			

Note. For faculty, *n* = 10; for students, *n* = 32.

* Significant at the .05 level (Reject *H*₀).

TABLE 40

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION B REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.3333	0.816	36	1.94	.060
	student	3.4194	1.089			
2. Written Comm. Skills	faculty	4.4286	0.787	36	2.37	.023*
	student	3.4194	1.057			
3. Oral Comm. Skills	faculty	4.2857	0.951	36	1.47	.149
	student	3.6129	1.116			
4. Interpersonal Skills	faculty	4.2857	0.756	36	1.71	.097
	student	3.4194	1.285			
5. Ethical & Moral Values	faculty	4.5714	0.787	36	1.92	.063
	student	3.8387	0.934			
6. Thinking Skills	faculty	4.8571	0.378	36	4.73	.000*
	student	3.8387	0.898			
7. Lifelong Learning	faculty	4.0000	0.816	36	1.64	.109
	student	3.2581	1.125			
8. Work Ethic	faculty	4.4286	0.787	36	2.08	.044*
	student	3.5161	1.092			
9. Leadership Skills	faculty	3.8571	0.690	36	1.13	.276
	student	3.4839	1.122			
10. Problem-solving Skills	faculty	4.7143	0.488	36	2.92	.009*
	student	3.9677	0.983			
11. Teamwork Skills	faculty	4.1429	0.900	36	0.74	.466
	student	3.8387	1.003			
12. Computer Technology Skills	faculty	3.8571	0.900	36	1.45	.154
	student	3.1613	1.186			

Note. For faculty, *n* = 7; for students, *n* = 31.

* Significant at the .05 level (Reject *H*₀).

Students and faculty in institution C differed on the following variables across the business majors: lifelong learning with $t = 2.40$, $p = .031$ and faculty's mean score of 4.0000 was significantly larger than the students' mean score of 2.8182; and problem-solving skills with $t = 2.51$, $p = .025$ and faculty's mean score of 4.2000 was significantly larger than the students' mean score of 3.3636. The null hypothesis was rejected on these variables and retained on the other 10 variables. These findings are summarized in Table 41.

Students and faculty in institution D differed on the variable numeracy skills with $t = 2.42$, $p = .017$ and faculty's mean score of 4.4545 was significantly larger than the students' mean score of 3.7059 across the business majors. The null hypothesis was rejected on this variable and retained on the other 11 variables. These findings are summarized in Table 42.

Students and faculty in institution E were different on the following variables across the business majors: written communication skills with $t = 3.15$, $p = .002$ and faculty's mean score of 4.5000 was significantly larger than the students' mean score of 3.6923; interpersonal skills with $t = 5.44$, $p = .000$ and faculty's mean score of 4.3125 was significantly larger than the students' mean score of 3.3217; ethical and moral values with $t = 2.78$, $p = .011$ and faculty's mean score of 4.1250 was significantly larger than the students' mean score of 3.3478; and thinking skills with $t = 2.08$, $p = .040$ and faculty's mean score of 4.4375 was significantly larger than the students' mean score of 3.9145 in the business major. The null hypothesis was rejected on these variables and retained on the other 8 variables. These findings are summarized in Table 43.

TABLE 41

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION C REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	3.2000	1.095	14	0.03	.974
	student	3.1818	0.603			
2. Written Comm. Skills	faculty	3.8000	1.304	14	0.86	.431
	student	3.2727	0.647			
3. Oral Comm. Skills	faculty	3.6000	1.140	14	0.41	.686
	student	3.3636	1.027			
4. Interpersonal Skills	faculty	3.8000	1.095	14	0.45	.661
	student	3.5455	1.036			
5. Ethical & Moral Values	faculty	4.0000	0.707	14	1.51	.162
	student	3.3636	0.924			
6. Thinking Skills	faculty	4.2000	0.837	14	1.38	.193
	student	3.4545	1.293			
7. Lifelong Learning	faculty	4.0000	0.707	14	2.40	.031*
	student	2.8182	0.982			
8. Work Ethic	faculty	4.0000	0.707	14	0.82	.428
	student	3.6364	1.027			
9. Leadership Skills	faculty	3.4000	1.140	14	0.24	.813
	student	3.2727	0.905			
10. Problem-solving Skills	faculty	4.2000	0.837	14	2.51	.025*
	student	3.3636	0.505			
11. Teamwork Skills	faculty	4.0000	0.707	14	1.20	.265
	student	3.5455	0.688			
12. Computer Technology Skills	faculty	3.6000	1.517	14	1.41	.209
	student	2.5455	1.036			

Note. For faculty, *n* = 10; for students, *n* = 11.

* Significant at the .05 level (Reject *H*₀).

TABLE 42

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION D REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.4545	0.934	111	2.42	.017*
	student	3.7059	0.981			
2. Written Comm. Skills	faculty	3.7273	1.421	111	-0.33	.746
	student	3.8725	0.840			
3. Oral Comm. Skills	faculty	3.8182	1.401	111	-0.35	.733
	student	3.9706	1.048			
4. Interpersonal Skills	faculty	3.9091	1.136	111	0.47	.648
	student	3.7426	0.934			
5. Ethical & Moral Values	faculty	3.8182	1.401	111	1.49	.138
	student	3.2255	1.234			
6. Thinking Skills	faculty	4.0909	1.221	111	-0.02	.985
	student	4.0980	1.293			
7. Lifelong Learning	faculty	3.2727	1.191	111	0.66	.510
	student	3.4950	1.045			
8. Work Ethic	faculty	3.9091	1.221	111	0.96	.338
	student	3.5686	1.104			
9. Leadership Skills	faculty	3.2727	1.348	111	-0.90	.388
	student	3.6471	0.908			
10. Problem-solving Skills	faculty	4.0000	1.265	111	-0.73	.480
	student	4.2843	0.736			
11. Teamwork Skills	faculty	3.6364	0.924	111	-1.41	.162
	student	4.0392	0.900			
12. Computer Technology Skills	faculty	3.7273	1.348	111	0.52	.607
	student	3.5098	1.326			

Note. For faculty, *n* = 11; for students, *n* = 102.

* Significant at the .05 level (Reject *H*₀).

TABLE 43

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION E REGARDING THE PERCEIVED INTEGRATION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.2500	1.095	131	1.64	.103
	student	3.7949	1.063			
2. Written Comm. Skills	faculty	4.5000	0.966	131	3.15	.002*
	student	3.6923	0.960			
3. Oral Comm. Skills	faculty	3.9375	1.340	131	1.85	.066
	student	3.3534	1.159			
4. Interpersonal Skills	faculty	4.3125	0.602	131	5.44	.000*
	student	3.3217	1.097			
5. Ethical & Moral Values	faculty	4.1250	1.025	131	2.78	.011*
	student	3.3478	1.192			
6. Thinking Skills	faculty	4.4375	0.814	131	2.08	.040*
	student	3.9145	0.961			
7. Lifelong Learning	faculty	3.6250	1.147	131	1.65	.101
	student	3.1217	1.141			
8. Work Ethics	faculty	3.7500	0.931	131	1.77	.091
	student	3.2991	1.132			
9. Leadership Skills	faculty	3.6250	0.885	131	1.74	.085
	student	3.1293	1.092			
10. Problem-solving Skills	faculty	4.3125	0.704	131	1.04	.298
	student	4.0769	0.863			
11. Teamwork Skills	faculty	4.5000	0.632	131	1.65	.102
	student	4.1368	0.850			
12. Computer Technology Skills	faculty	3.6250	1.258	131	0.80	.433
	student	3.3590	1.141			

Note. For faculty, *n* = 16; for students, *n* = 117.

* Significant at the .05 level (Reject *H*₀).

Null Hypothesis 5

Hypothesis 5 states: *There is no difference in the perceptions of students and their professors within each of the five institutions regarding the skills the students possess and the skills professors perceive the students possess across their respective business core classes.*

Findings

Students and faculty in institution A differed on the following variables across the business core classes: written communication skills with $t = -2.56$, $p = .014$ and faculty's mean score of 3.4000 was significantly less than the students' mean score of 4.1290; work ethic with $t = -4.72$, $p = .000$ and faculty's mean score of 3.1000 was significantly less than the students' mean score of 4.0323; and leadership skills with $t = -2.43$, $p = .020$ and faculty's mean score of 3.6000 was significantly less than the students' mean score of 3.7742. The null hypothesis was rejected on these variables and retained on the other 8 variables. These findings are summarized in Table 44.

Student and Faculty in institution B differed on the following variables: ethical and moral values with $t = -2.42$, $p = .035$ and faculty's mean score of 4.0000 was significantly less than the students' mean score of 4.6129; thinking skills with $t = -2.11$, $p = .047$ and faculty's mean score of 3.8571 was significantly less than the students' mean score of 4.2903; work ethic with $t = -2.92$, $p = .006$ and faculty's mean score of 3.5714 was significantly less than the students' mean score of 4.5161; and teamwork skills with $t = -2.53$, $p = .021$ and faculty's mean score of 3.8571 was significantly less than the

TABLE 44

TESTS OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION A REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	3.6000	0.516	40	-1.19	.241
	student	3.9032	0.746			
2. Written Comm. Skills	faculty	3.4000	0.699	40	-2.56	.014*
	student	4.1290	0.806			
3. Oral Comm. Skills	faculty	3.7000	0.675	40	-0.52	.604
	student	3.8710	0.957			
4. Interpersonal Skills	faculty	3.6000	0.516	40	-0.80	.428
	student	3.3667	1.108			
5. Ethical & Moral Values	faculty	4.2000	0.632	40	-.64	.530
	student	4.3548	0.755			
6. Thinking Skills	faculty	3.5000	0.527	40	-1.63	.111
	student	4.0323	0.983			
7. Lifelong Learning	faculty	3.1000	0.994	40	-1.47	.150
	student	3.0968	1.107			
8. Work Ethic	faculty	3.1000	0.316	40	-4.72	.000*
	student	4.0323	0.948			
9. Leadership Skills	faculty	3.2000	0.422	40	-2.43	.020*
	student	3.7742	1.087			
10. Problem-solving Skills	faculty	3.6000	0.516	40	-0.98	.334
	student	3.8387	1.003			
11. Teamwork Skills	faculty	3.5000	0.707	40	-1.08	.287
	student	3.9032	1.106			
12. Computer Technology Skills	faculty	3.9000	0.568	40	1.17	.251
	student	3.5806	1.148			

Note. For faculty, *n* = 10; for students, *n* = 32.

* Significant at the .05 level (Reject *H*₀).

students' mean score of 4.3548. The null hypothesis was rejected on these variables and retained on the other 8 variables. These findings are summarized in Table 45.

Students and faculty in institution C differed on the following variables across the business core classes: numeracy skills with $t = -4.01$, $p = .001$ and faculty's mean score of 2.4000 was significantly less than the students' mean score of 3.5455; and problem-solving skills with $t = -3.61$, $p = .003$ and faculty's mean score of 2.8000 was significantly less than the students' mean score of 4.0000. The null hypothesis was rejected on these variables and retained on the other 10 variables. These findings are summarized in Table 46.

Students and faculty in institution D differed on the following variables across the business core classes: numeracy skills with $t = -3.58$, $p = .001$ and faculty's mean score of 2.9091 was significantly less than the students' mean score of 3.8824; written communication skills with $t = -3.74$, $p = .003$ and faculty's mean score of 2.8182 was significantly less than the students' mean score of 4.0588; oral communication skills with $t = -2.07$, $p = .041$ and faculty's mean score of 3.3636 was significantly less than the students' mean score of 3.9216; interpersonal skills with $t = -3.71$, $p = .000$ and faculty's mean score of 3.0909 was significantly less than the students' mean score of 4.0784; ethical and moral values with $t = -2.48$, $p = .015$ and faculty's mean score of 3.2727 was significantly less than the students' mean score of 4.0396; thinking skills with $t = -4.41$, $p = .000$ and faculty's mean score of 2.9091 was significantly less than the students' mean score of 3.9608; lifelong learning with $t = -3.05$, $p = .003$ and faculty's mean score of 2.9091 was significantly less than the students' mean score of 3.8039;

TABLE 45

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION B REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	3.7143	0.488	36	-1.03	.319
	student	3.9677	0.912			
2. Written Comm. Skills	faculty	3.5714	0.535	36	-1.62	.114
	student	4.0323	0.706			
3. Oral Comm. Skills	faculty	3.8571	0.675	36	-2.07	.053
	student	4.2581	0.729			
4. Interpersonal Skills	faculty	3.8571	0.516	36	-1.52	.142
	student	4.1935	0.946			
5. Ethical & Moral Values	faculty	4.0000	0.577	36	-2.42	.035*
	student	4.6129	0.715			
6. Thinking Skills	faculty	3.8571	0.378	36	-2.11	.047*
	student	4.2903	0.824			
7. Lifelong Learning	faculty	3.5714	0.535	36	-1.60	.119
	student	4.0645	0.772			
8. Work Ethic	faculty	3.5714	0.535	36	-2.92	.006*
	student	4.5161	0.811			
9. Leadership Skills	faculty	3.7143	0.488	36	-1.28	.213
	student	4.0645	1.124			
10. Problem-solving Skills	faculty	3.8571	0.690	36	-1.09	.297
	student	4.1935	0.910			
11. Teamwork Skills	faculty	3.8571	0.378	36	-2.53	.021*
	student	4.3548	0.755			
12. Computer Technology Skills	faculty	3.7143	0.756	36	0.39	.706
	student	3.5806	1.089			

Note. For faculty, *n* = 7; for students, *n* = 31.

* Significant at the .05 level (Reject *H*₀).

TABLE 46

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION C REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	2.4000	0.548	14	-4.01	.001*
	student	3.5455	0.522			
2. Written Comm. Skills	faculty	3.4000	0.548	14	0.32	.750
	student	3.2727	0.786			
3. Oral Comm. Skills	faculty	3.4000	0.548	14	0.35	.734
	student	3.2727	0.905			
4. Interpersonal Skills	faculty	3.6000	0.548	14	0.84	.417
	student	3.2727	1.009			
5. Ethical & Moral Values	faculty	4.2000	0.837	14	0.65	.528
	student	3.9091	0.831			
6. Thinking Skills	faculty	3.4000	0.894	14	-0.53	.617
	student	3.6364	0.674			
7. Lifelong Learning	faculty	3.4000	0.548	14	0.13	.898
	student	3.3636	0.505			
8. Work Ethic	faculty	2.8000	1.095	14	-1.31	.211
	student	3.5455	1.036			
9. Leadership Skills	faculty	2.8000	0.837	14	-2.00	.067
	student	3.5000	0.527			
10. Problem-solving Skills	faculty	2.8000	0.837	14	-3.61	.003*
	student	4.0000	0.471			
11. Teamwork Skills	faculty	3.2000	0.447	14	-1.45	.170
	student	3.7273	1.009			
12. Computer Technology Skills	faculty	3.4000	0.548	14	1.88	.117
	student	2.9091	0.302			

Note. For faculty, *n* = 5; for students, *n* = 11.

* Significant at the .05 level (Reject *H*₀).

work ethic with $t = -3.56$, $p = .001$ and faculty's mean score of 3.0909 was significantly less than the students' mean score of 4.1176; leadership skills with $t = -2.20$, $p = .030$ and faculty's mean score of 3.2727 was significantly less than the students' mean score of 3.9412; problem-solving skills with $t = -3.16$, $p = .002$ and faculty's mean score of 3.1818 was significantly less than the students' mean score of 3.9706; and teamwork skills with $t = -2.12$, $p = .036$ and faculty's mean score of 3.3636 was significantly less than the students' mean score of 4.0588. The null hypothesis was rejected on these variables and retained on the other 1 variable. These findings are summarized in Table 47.

Students and faculty in institution E differed on the following variables across the business core classes: numeracy skills with $t = -2.81$, $p = .012$ and faculty's mean score of 3.0625 was significantly less than the students' mean score of 4.0000; written communication skills with $t = -5.05$, $p = .000$ and faculty's mean score of 2.7500 was significantly less than the students' mean score of 3.9052; ethical and moral values with $t = -3.45$, $p = .001$ and faculty's mean score of 3.5000 was significantly less than the students' mean score of 4.3070; thinking skills with $t = -3.02$, $p = .003$ and faculty's mean score of 3.5625 was significantly less than the students' mean score of 4.2155; lifelong learning with $t = -2.98$, $p = .003$ and faculty's mean score of 3.1875 was significantly less than the students' mean score of 3.8966; leadership skills with $t = -3.32$, $p = .001$ and faculty's mean score of 3.1250 was less than the students' mean score of 3.8534; problem-solving skills with $t = -2.10$, $p = .038$ and faculty's mean score of

TABLE 47

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION D REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	2.9091	0.831	111	-3.58	.001*
	student	3.8824	0.859			
2. Written Comm. Skills	faculty	2.8182	1.079	111	-3.74	.003*
	student	4.0588	0.657			
3. Oral Comm. Skills	faculty	3.3636	1.120	111	-2.07	.041
	student	3.9216	0.817			
4. Interpersonal Skills	faculty	3.0909	1.044	111	-3.71	.000*
	student	4.0784	0.817			
5. Ethical & Moral Values	faculty	3.2727	1.104	111	-2.48	.015*
	student	4.0396	0.958			
6. Thinking Skills	faculty	2.9091	1.044	111	-4.41	.000*
	student	3.9608	0.716			
7. Lifelong Learning	faculty	2.9091	1.044	111	-3.05	.003*
	student	3.8039	0.912			
8. Work Ethic	faculty	3.0909	0.944	111	-3.56	.001*
	student	4.1176	0.904			
9. Leadership Skills	faculty	3.2727	1.009	111	-2.20	.030*
	student	3.9412	0.953			
10. Problem-solving Skills	faculty	3.1818	0.751	111	-3.16	.002*
	student	3.9706	0.789			
11. Teamwork Skills	faculty	3.3636	0.809	111	-2.12	.036*
	student	4.0588	1.051			
12. Computer Technology Skills	faculty	3.2727	0.905	111	-1.06	.293
	student	3.6275	1.071			

Note. For faculty, *n* = 11; for students, *n* = 102.

* Significant at the .05 level (Reject *H*₀).

3.5625 was significantly less than the students' mean score of 4.0259; and computer technology skills with $t = -4.19$, $p = .000$ and faculty's mean score of 2.9375 was significantly less than the students' mean score of 3.9391. The null hypothesis was rejected on these variables and retained on the other 5 variables. These findings are summarized in Table 48.

Null Hypothesis 6

Hypothesis 6 states: *There is no difference in the perceptions of students and their professors within each of the five institutions regarding the skills the students possess and the skills professors perceive the students possess across their respective business majors.*

Findings

Students and faculty in institution A differed on the following variables across the business majors: written communication skills with $t = -2.42$, $p = .020$ and faculty's mean score of 3.4000 was significantly less than the students' mean score of 4.0645; and computer technology skills with $t = 2.41$, $p = .021$ and faculty's mean score of 4.4000 was significantly larger than the students' mean score of 3.5806. The null hypothesis was rejected on these variables and retained on the other 10 variables. These findings are summarized in Table 49.

Students and faculty in institution B were different on the following variables: oral communication skills with $t = -2.16$, $p = .043$ and faculty's mean score of 3.8571 was less than the students' mean score of 4.2903; ethical and moral values with $t = -2.96$, $p =$

TABLE 48

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION E REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	3.0625	1.289	131	-2.81	.012*
	student	4.0000	0.914			
2. Written Comm. Skills	faculty	2.7500	0.856	131	-5.05	.000*
	student	3.9052	0.875			
3. Oral Comm. Skills	faculty	3.0000	1.414	131	-2.04	.058
	student	3.7414	0.943			
4. Interpersonal Skills	faculty	3.6250	1.204	131	-1.57	.136
	student	4.1130	0.866			
5. Ethical & Moral Values	faculty	3.5000	0.966	131	-3.45	.001*
	student	4.3070	0.863			
6. Thinking Skills	faculty	3.5625	0.892	131	-3.02	.003*
	student	4.2155	0.800			
7. Lifelong Learning	faculty	3.1875	0.834	131	-2.98	.003*
	student	3.8966	0.898			
8. Work Ethic	faculty	3.7500	1.238	131	-1.52	.147
	student	4.2348	0.809			
9. Leadership Skills	faculty	3.1250	0.885	131	-3.32	.001*
	student	3.8534	0.816			
10. Problem-solving Skills	faculty	3.5625	1.031	131	-2.10	.038*
	student	4.0259	0.796			
11. Teamwork Skills	faculty	3.7500	1.291	131	-1.65	.119
	student	4.2931	0.746			
12. Computer Technology Skills	faculty	2.9375	0.772	131	-4.19	.000*
	student	3.9391	0.911			

Note. For faculty, $n = 16$; for students, $n = 117$.

* Significant at the .05 level (Reject H_0).

TABLE 49

TESTS OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION A REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	M	SD	df	t	p
1. Numeracy Skills	faculty	3.6000	0.516	40	-0.85	.398
	student	3.8065	0.703			
2. Written Comm. Skills	faculty	3.4000	0.699	40	-2.42	.020*
	student	4.0645	0.772			
3. Oral Comm. Skills	faculty	3.7000	0.675	40	-0.41	.685
	student	3.8333	0.950			
4. Interpersonal Skills	faculty	3.9000	0.316	40	0.44	.663
	student	3.8065	1.046			
5. Ethical & Moral Values	faculty	4.2000	0.632	40	-0.86	.395
	student	4.4194	0.720			
6. Thinking Skills	faculty	4.2000	0.422	40	0.03	.976
	student	4.1935	0.946			
7. Lifelong Learning	faculty	3.4000	0.843	40	-0.97	.340
	student	3.7333	1.172			
8. Work Ethic	faculty	3.6000	0.699	40	-1.79	.082
	student	4.1290	0.846			
9. Leadership Skills	faculty	3.4444	0.527	40	-1.57	.129
	student	3.8387	1.003			
10. Problem-solving Skills	faculty	4.2000	0.632	40	0.90	.379
	student	3.9655	0.906			
11. Teamwork Skills	faculty	3.7000	0.675	40	-1.56	.133
	student	4.1333	0.973			
12. Computer Technology Skills	faculty	4.4000	0.699	40	2.41	.021*
	student	3.5806	0.992			

Note. For faculty, n = 10; for students, n = 32.

* Significant at the .05 level (Reject Ho).

.005 and faculty's mean score of 4.0000 was significantly less than the students' mean score of 4.6774; thinking skills with $t = -2.06$, $p = .019$ and faculty's mean score of 3.8571 was less than the students' mean score of 4.3548; work ethic with $t = -2.40$, $p = .022$ and faculty's mean score of 3.7143 was significantly less than the students' mean score of 4.4839; and teamwork skills with $t = -2.76$, $p = .013$ and faculty's mean score of 3.8571 was significantly less than the students' mean score of 4.3871. The null hypothesis was rejected on these variables and retained on the other 7 variables. These findings are summarized in Table 50.

Students and faculty in institution C did not differ on any of the variables in the business majors. Therefore, the null hypothesis was retained on all 12 variables. The findings are summarized in Table 51.

Students and faculty in institution D differed on the following variables across the business majors: written communication skills with $t = -3.47$, $p = .005$ and faculty's mean score of 3.0000 was significantly less than the students' mean score of 4.1667; oral communication skills with $t = -2.20$, $p = .030$ and faculty's mean score of 3.6364 was significantly less than the students' mean score of 4.1471; interpersonal skills with $t = -3.06$, $p = .003$ and faculty's mean score of 3.4545 was significantly less than the students' mean score of 4.2451; thinking skills with $t = -2.60$, $p = .025$ and faculty's mean score of 3.2727 was significantly less than the students' mean score of 4.1569; lifelong learning with $t = -2.63$, $p = .010$ and faculty's mean score of 3.2727 was significantly less than the students' mean score of 4.0000; work ethic with $t = -3.56$, $p = .001$ and faculty's mean score of 3.4545 was significantly less than the students' mean

TABLE 50

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION B REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	4.1429	0.690	36	0.48	.637
	student	3.9677	0.912			
2. Written Comm. Skills	faculty	3.5714	0.535	36	-1.45	.155
	student	4.0323	0.795			
3. Oral Comm. Skills	faculty	3.8571	0.378	36	-2.16	.043*
	student	4.2903	0.783			
4. Interpersonal Skills	faculty	3.7143	0.488	36	-2.03	.057
	student	4.2258	0.956			
5. Ethical & Moral Values	faculty	4.0000	0.577	36	-2.96	.005*
	student	4.6774	0.541			
6. Thinking Skills	faculty	3.8571	0.378	36	-2.06	.019*
	student	4.3548	0.709			
7. Lifelong Learning	faculty	3.8571	0.378	36	-1.76	.096
	student	4.1935	0.703			
8. Work Ethic	faculty	3.7143	0.488	36	-2.40	.022*
	student	4.4839	0.811			
9. Leadership Skills	faculty	3.7143	0.488	36	-2.00	.060
	student	4.2258	0.990			
10. Problem-solving Skills	faculty	4.1429	0.378	36	-0.24	.813
	student	4.1935	0.873			
11. Teamwork Skills	faculty	3.8571	0.378	36	-2.76	.013*
	student	4.3871	0.715			
12. Computer Technology Skills	faculty	3.8571	0.690	36	0.56	.585
	student	3.6774	1.045			

Note. For faculty, *n* = 7; for students, *n* = 31.

* Significant at the .05 level (Reject *H*₀).

TABLE 51

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION C REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	2.8000	0.837	14	-1.52	.489
	student	3.5455	0.934			
2. Written Comm. Skills	faculty	3.6000	0.548	14	1.53	.177
	student	3.1818	0.405			
3. Oral Comm. Skills	faculty	3.6000	0.548	14	1.11	.286
	student	3.1818	0.751			
4. Interpersonal Skills	faculty	3.8000	0.477	14	1.87	.083
	student	3.1818	0.874			
5. Ethical & Moral Values	faculty	4.0000	0.707	14	0.23	.827
	student	3.9091	0.831			
6. Thinking Skills	faculty	3.6000	0.548	14	-0.11	.911
	student	3.6364	0.674			
7. Lifelong Learning	faculty	3.4000	0.548	14	-0.51	.619
	student	3.5455	0.522			
8. Work Ethic	faculty	3.4000	0.548	14	-0.35	.734
	student	3.5455	1.128			
9. Leadership Skills	faculty	3.0000	1.000	14	-0.84	.438
	student	3.4000	0.516			
10. Problem-solving Skills	faculty	3.6000	0.548	14	0.00	1.000
	student	3.6000	0.699			
11. Teamwork Skills	faculty	3.6000	0.548	14	-1.10	.293
	student	4.0000	0.894			
12. Computer Technology Skills	faculty	3.6000	0.548	14	1.45	.173
	student	3.0909	0.831			

Note. For faculty, *n* = 5; for students, *n* = 11.

* Significant at the .05 level (Reject *H*₀).

score of 4.3824; leadership skills with $t = -2.21$, $p = .048$ and faculty's mean score of 3.3636 was significantly less than the students' mean score of 4.1373; problem-solving skills with $t = -2.65$, $p = .022$ and faculty's mean score of 3.5455 was significantly less than the students' mean score of 4.2255; and teamwork skills with $t = 1.04$, $p = .315$ and faculty's mean score of 3.6364 was significantly less than the students' mean score of 4.3039. The null hypothesis was rejected on these variables and retained on the other 4 variables. These findings are summarized in Table 52.

Students and faculty in institution E differed on the following variables across the business majors: numeracy skills with $t = -4.66$, $p = .000$ and faculty's mean score of 3.0000 was significantly less than the students' mean score of 4.0862; written communication skills with $t = -4.78$, $p = .000$ and faculty's mean score of 2.8750 was significantly less than the students' mean score of 3.9573; oral communication skills with $t = -2.21$, $p = .041$ and faculty's mean score of 3.0000 was significantly less than the students' mean score of 3.8034; ethical and moral values with $t = -3.80$, $p = .000$ and faculty's mean score of 3.4375 was less than the students' mean score of 4.3504; thinking skills with $t = -3.44$, $p = .001$ and faculty's mean score of 3.6250 was significantly less than the students' mean score of 4.2845; lifelong learning with $t = -3.51$, $p = .001$ and faculty's mean score of 3.1875 was significantly less than the students' mean score of 4.0427; work ethic with $t = -2.12$, $p = .049$ and faculty's mean score of 3.7500 was significantly less than the students' mean score of 4.4224; leadership skills with $t = -4.00$, $p = .000$ and faculty's mean score of 3.1250 was significantly less than the students' mean score of 4.0171; problem-solving skills with $t = -2.35$, $p = .020$ and faculty's mean

TABLE 52

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION D REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty	3.3636	0.809	111	-1.98	.051
	student	3.9510	0.948			
2. Written Comm. Skills	faculty	3.0000	1.095	111	-3.47	.005*
	student	4.1667	0.631			
3. Oral Comm. Skills	faculty	3.6364	0.809	111	-2.20	.030*
	student	4.1471	0.723			
4. Interpersonal Skills	faculty	3.4545	0.934	111	-3.06	.003*
	student	4.2451	0.801			
5. Ethical & Moral Values	faculty	3.6364	1.027	111	-2.39	.019*
	student	4.2673	0.811			
6. Thinking Skills	faculty	3.2727	1.104	111	-2.60	.025*
	student	4.1569	0.714			
7. Lifelong Learning	faculty	3.2727	0.905	111	-2.63	.010*
	student	4.0000	0.867			
8. Work Ethic	faculty	3.4545	0.820	111	-3.56	.001*
	student	4.3824	0.821			
9. Leadership Skills	faculty	3.3636	1.120	111	-2.21	.048*
	student	4.1373	0.912			
10. Problem-solving Skills	faculty	3.5455	0.820	111	-2.65	.022*
	student	4.2255	0.688			
11. Teamwork Skills	faculty	3.6364	0.809	111	-2.26	.026*
	student	4.3039	0.942			
12. Computer Technology Skills	faculty	4.0000	0.894	111	1.04	.315
	student	3.6961	1.106			

Note. For faculty, *n* = 11; for students, *n* = 102.

* Significant at the .05 level (Reject *H*₀).

score of 3.6250 was significantly less than the students' mean score of 4.1368; and computer technology skills with $t = -3.85$, $p = .000$ and faculty's mean score of 3.0000 was significantly less than the students' mean score of 3.9138. The null hypothesis was rejected on these variables and retained on the other 3 variables. These findings are summarized in Table 53.

Null Hypothesis 7

Hypothesis 7 states: *There is no difference in the perceptions of students and their professors within each of the five institutions regarding the strategies used to integrate employability skills across their respective business core.*

Findings

Students and faculty in institution A did not differ on any of the teaching strategies in the business core classes. Therefore, the null hypothesis was retained on all 6 variables. These findings are summarized in Table 54.

Students and faculty in institution B did not differ on any of the teaching strategies in the business core classes. Therefore, the null hypothesis was retained on all 6 variables. These findings are summarized in Table 55.

Students and faculty in institution C differed on the following teaching strategies across the business core classes: (1) Students encouraged to work in groups with $t = 3.23$, $p = .006$ and faculty's mean score of 3.8000 was significantly larger than the students' mean score of 2.8182; and (2) the lecture method with $t = -2.33$, $p = .035$ and

TABLE 53

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION E REGARDING THE PERCEIVED POSSESSION OF
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Numeracy Skills	faculty student	3.0000 4.0862	1.211 0.819	131	-4.66	.000*
2. Written Comm. Skills	faculty student	2.8750 3.9573	0.806 0.855	131	-4.78	.000*
3. Oral Comm. Skills	faculty student	3.0000 3.8034	1.414 0.921	131	-2.21	.041*
4. Interpersonal Skills	faculty student	4.1250 4.2500	0.957 0.822	131	-0.50	.625
5. Ethical & Moral Values	faculty student	3.4375 4.3504	1.094 0.874	131	-3.80	.000*
6. Thinking Skills	faculty student	3.6250 4.2845	0.806 0.708	131	-3.44	.001*
7. Lifelong Learning	faculty student	3.1875 4.0427	0.834 0.923	131	-3.51	.001*
8. Work Ethic	faculty student	3.7500 4.4224	1.238 0.736	131	-2.12	.049*
9. Leadership Skills	faculty student	3.1250 4.0171	0.957 0.820	131	-4.00	.000*
10. Problem-solving Skills	faculty student	3.6250 4.1368	0.957 0.798	131	-2.35	.020*
11. Teamwork Skills	faculty student	4.1250 4.3590	1.088 0.713	131	-1.15	.253
12. Computer Technology Skills	faculty student	3.0000 3.9138	0.816 0.900	131	-3.85	.000*

Note. For faculty, *n* = 16; for students, *n* = 117.

* Significant at the .05 level (Reject *H*₀).

TABLE 54

TESTS OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION A REGARDING THE PERCEIVED STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Students encouraged to work in groups	faculty	3.4000	1.506	40	-0.43	.763
	student	3.6207	0.979			
2. Lecture method	faculty	4.5000	0.527	40	1.27	.216
	student	4.2069	0.861			
3. Individual presentation by students	faculty	3.7000	1.059	40	1.16	.254
	student	3.2857	0.937			
4. Case studies	faculty	3.5000	1.509	40	0.10	.923
	student	3.4483	1.213			
5. Business simulations with computers	faculty	2.6000	1.430	40	1.64	.109
	student	2.4138	1.452			
6. Internship experiences	faculty	3.5000	0.527	40	0.35	.728
	student	4.0323	0.983			

Note. For faculty, *n* = 10; for students, *n* = 32.

* Significant at the .05 level (Reject *H*₀).

TABLE 55

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION B REGARDING THE PERCEIVED STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Students encouraged to work in groups	faculty	4.1429	1.069	36	0.84	.427
	student	3.7742	0.990			
2. Lecture method	faculty	3.8571	1.069	36	-1.24	.224
	student	4.2903	0.783			
3. Individual presentation by students	faculty	3.8571	1.464	36	0.95	.350
	student	3.3548	1.226			
4. Case studies	faculty	4.1429	0.900	36	1.01	.319
	student	3.6774	1.137			
5. Business simulations with computers	faculty	3.0000	1.414	36	0.41	.685
	student	2.7419	1.527			
6. Internship experiences	faculty	2.7143	1.254	36	-1.01	.337
	student	3.2581	1.437			

Note. For faculty, *n* = 7; for students, *n* = 31.

* Significant at the .05 level (Reject *H*₀).

faculty's mean score of 3.6000 was significantly less than the students' mean score of 4.5455. The null hypothesis was rejected on these variables and retained on the other 4 variables. These findings are summarized in Table 56.

Students and faculty in institution D differed on the following teaching strategies across the business core classes: (1) case studies with $t = -2.30$, $p = .039$ and faculty's mean score of 2.4545 was significantly less than the students' mean score of 3.2871; (2) business simulations with computers with $t = -2.92$, $p = .011$ and faculty's mean score of 1.8182 was significantly less than the students' mean score of 2.7647; and (3) internship experiences with $t = -3.37$, $p = .005$ and faculty's mean score of 2.3000 was significantly less than the students' mean score of 3.5500. The null hypothesis was rejected on these variables and retained on the other 3 variables. These findings are summarized in Table 57.

Students and faculty in institution E differed on the teaching strategy: internship experiences with $t = -2.97$, $p = .004$ and faculty's mean score of 2.3125 was significantly less than the students' mean score of 3.4261 across the business core classes. The null hypothesis was rejected on this variable and retained on the other 5 variables. These findings are summarized in Table 58.

Null Hypothesis 8

Hypothesis 8 states: *There is no difference in the perceptions of students and their professors within each of the five institutions regarding the strategies used to integrate employability skills across their respective business majors.*

TABLE 56

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION C REGARDING THE PERCEIVED STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Students encouraged to work in groups	faculty	3.8000	0.447	14	3.23	.006*
	student	2.8182	0.603			
2. Lecture method	faculty	3.6000	0.548	14	-2.33	.035*
	student	4.5455	0.820			
3. Individual presentation by students	faculty	3.8000	1.095	14	2.07	.058
	student	2.7273	0.905			
4. Case studies	faculty	2.8000	0.837	14	-1.04	.966
	student	2.8182	0.751			
5. Business simulations with computers	faculty	2.4000	1.140	14	-0.25	.804
	student	2.5455	1.036			
6. Internship experiences	faculty	3.2000	1.304	14	0.18	.867
	student	3.0909	0.701			

Note. For faculty, *n* = 5; for students, *n* = 11.

* Significant at the .05 level (Reject *H*₀).

TABLE 57

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION D REGARDING THE PERCEIVED STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Students encouraged to work in groups	faculty	3.3636	0.924	111	-0.86	.393
	student	3.6373	1.013			
2. Lecture method	faculty	3.5455	1.368	111	-1.34	.208
	student	4.1089	0.799			
3. Individual presentation by students	faculty	2.5000	1.434	111	-1.87	.064
	student	3.2451	1.181			
4. Case studies	faculty	2.4545	1.128	111	-2.30	.039*
	student	3.2871	1.260			
5. Business simulations with computers	faculty	1.8182	0.982	111	-2.92	.011*
	student	2.7647	1.329			
6. Internship experiences	faculty	2.3000	1.059	111	-3.37	.005*
	student	3.5500	1.598			

Note. For faculty, *n* = 11; for students, *n* = 102.

* Significant at the .05 level (Reject *H*₀).

TABLE 58

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION E REGARDING THE PERCEIVED STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CORE CLASSES

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1.Students encouraged to work in groups	faculty student	3.3750 3.9741	1.708 1.017	131	-1.37	.189
2. Lecture method	faculty student	4.2500 3.9914	0.775 0.860	131	1.14	.256
3. Individual presentation by students	faculty student	2.8125 3.2672	1.601 1.130	131	-1.10	.287
4. Case studies	faculty student	2.9375 3.3362	1.569 1.103	131	-0.98	.339
5.Business simulations with computers	faculty student	2.0000 2.5259	1.095 1.240	131	-1.77	.091
6.Internship experiences	faculty student	2.3125 3.4261	1.401 0.408	131	-2.97	.004*

Note. For faculty, n = 16; for students, n = 117.

* Significant at the .05 level (Reject Ho).

Findings

Students and faculty in institution A did not differ on any of the teaching strategies across the business majors. Therefore, the null hypothesis was retained on all 6 variables. These findings are summarized in Table 59.

Students and faculty in institution B differed on the following teaching strategy: Students encouraged to work in groups with $t = 2.37$, $p = .033$ and faculty's mean score of 4.5000 was significantly larger than the students' mean score of 3.8065 across the business majors. The null hypothesis was rejected on this variable and retained on the other 5 variables. These findings are summarized in Table 60.

Students and faculty in institution C did not differ on any of the teaching strategies across the business majors. Therefore, the null hypothesis was retained on all 6 variables. These findings are summarized in Table 61.

Students and faculty in institution D differed on the following teaching strategies across the business majors: (1) case studies with $t = -3.14$, $p = .002$ and faculty's mean score of 2.9091 was significantly less than the students' mean score of 4.0594; and (2) internship experiences with $t = -4.55$, $p = .000$ and faculty's mean score of 2.3636 was significantly less than the students' mean score of 4.0400. The null hypothesis was rejected on these variables and retained on the other 4 variables. These findings are summarized in Table 62.

TABLE 59

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS
IN INSTITUTION A REGARDING THE PERCEIVED STRATEGIES USED TO
INTEGRATE EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1.Students encouraged to work in groups.	faculty student	3.4000 3.8966	1.350 0.976	40	-1.25	.217
2. Lecture method	faculty student	4.6000 4.4483	0.516 0.783	40	0.69	.494
3. Individual presentation by students	faculty student	3.1111 3.5000	0.782 0.839	40	2.00	.064
4. Case studies	faculty student	4.2000 3.7586	1.229 0.988	40	1.14	.260
5.Business simulations with computers	faculty student	3.4000 2.7241	1.265 1.386	40	1.36	.183
6.Internship experiences	faculty student	2.8000 2.5714	1.476 1.476	40	0.42	.677

Note. For faculty, *n* = 10; for students, *n* = 32.

* Significant at the .05 level (Reject *H*₀).

TABLE 60

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION B REGARDING THE PERCEIVED STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Students encouraged to work in groups.	faculty student	4.5000 3.8065	0.548 1.046	36	2.37	.033*
2. Lecture method	faculty student	3.8571 4.2903	1.069 0.739	36	-1.02	.341
3. Individual presentation by students	faculty student	4.0000 3.5484	1.528 1.207	36	0.85	.400
4. Case studies	faculty student	4.1429 3.7742	0.900 1.055	36	0.85	.399
5. Business simulations with computers	faculty student	3.1429 2.6774	1.345 1.514	36	0.81	.439
6. Internship experiences	faculty student	3.4286 3.7097	1.618 1.465	36	-0.45	.655

Note. For faculty, *n* = 7; for students, *n* = 31.

* Significant at the .05 level (Reject *H*₀).

TABLE 61

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION C REGARDING THE PERCEIVED STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1. Students encouraged to work in groups.	faculty	3.8000	0.447	14	1.77	.098
	student	3.0909	0.831			
2. Lecture method	faculty	3.4000	0.548	14	-1.82	.089
	student	4.1818	0.874			
3. Individual presentation by students	faculty	4.0000	0.707	14	1.66	.120
	student	3.1818	1.250			
4. Case studies	faculty	3.2000	0.837	14	0.48	.650
	student	3.0000	0.632			
5. Business simulations with computers	faculty	2.2000	1.304	14	-0.25	.809
	student	2.3636	1.206			
6. Internship experiences	faculty	3.8000	1.095	14	1.44	.173
	student	3.0909	0.831			

Note. For faculty, *n* = 5; for students, *n* = 11.

* Significant at the .05 level (Reject *H*₀).

TABLE 62

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN
INSTITUTION D REGARDING THE PERCEIVED STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1.Students encouraged to work in groups.	faculty	3.7000	0.823	111	-0.55	.585
	student	3.8725	0.961			
2. Lecture method	faculty	3.3636	1.362	111	-1.66	.125
	student	4.0594	0.846			
3. Individual presentation by students	faculty	3.1818	1.537	111	-1.22	.249
	student	3.7647	1.236			
4. Case studies	faculty	2.9091	1.446	111	-3.14	.002*
	student	4.0594	1.121			
5.Business simulations with computers	faculty	2.2727	1.304	111	-1.72	.088
	student	3.0294	1.410			
6.Internship experiences	faculty	2.3636	1.120	111	-4.55	.000*
	student	4.0400	1.477			

Note. For faculty, n = 11; for students, n = 102.

* Significant at the .05 level (Reject H_0).

Students and faculty in institution E differed on the following teaching strategy across the business majors: Individual presentation by students with $t = 2.37$, $p = .027$ and faculty's mean score of 4.1875 was significantly larger than the students' mean score of 3.5862. The null hypothesis was rejected on this variable and retained on the other 5 variables. These findings are summarized in Table 63.

TABLE 63

TEST OF SIGNIFICANCE BETWEEN THE MEANS OF FACULTY AND STUDENTS IN INSTITUTION E REGARDING THE PERCEIVED STRATEGIES USED TO INTEGRATE EMPLOYABILITY SKILLS ACROSS THE BUSINESS MAJORS

Variables	Group	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
1.Students encouraged to work in groups	faculty	4.6250	0.619	131	1.86	.076
	student	4.3017	0.857			
2. Lecture method	faculty	4.1250	0.719	131	1.54	.204
	student	3.8103	1.038			
3. Individual presentation by students	faculty	4.1875	0.911	131	2.37	.027*
	student	3.5862	1.209			
4. Case studies	faculty	4.1875	0.750	131	1.68	.105
	student	3.8276	1.106			
5.Business simulations with computers	faculty	2.0625	1.304	131	-1.50	.148
	student	2.4957	1.195			
6.Internship experiences	faculty	3.6875	1.250	131	-0.35	.730
	student	3.8070	1.303			

Note. For faculty, $n = 16$; for $n = 117$.

* Significant at the .05 level (Reject H_0).

Summary

In this chapter, data were presented on the sample of final-year undergraduate business students and their faculty in five tertiary institutions. Demographic characteristics related to the percentage of students who were enrolled in the various business majors, the students' enrollment and employment status; and the years of professional work experience they had prior to enrolling in their business programs were presented. The characteristics of the faculty sample addressed the percentage of faculty that returned valid responses from each of the institutions. This chapter also reported on the analysis of four research questions and the eight hypotheses that were tested to provide answers to those research questions.

Hypothesis 1 tested if there was any difference in the perceptions of students and their professors within each of the five institutions regarding those skills they consider important for employment that were addressed across their respective business core classes. The following are the summary findings for hypothesis 1.

Students and faculty in institution A differed on the variable numeracy skills across the business core classes. The null hypothesis was rejected on this variable and retained on the other 11 variables.

Students and faculty in institution B differed on the following variables: thinking skills, problem-solving skills and teamwork skills across the business core classes. The null hypothesis was rejected on these variables and retained on the other 9 variables.

Students and faculty in institution C differed on the variable thinking skills across the business core classes. The null hypothesis was rejected on this variable and retained

on the other 11 variables.

Students and faculty in institution D did not differ on any of the variables.

Therefore, the null hypothesis was retained on all 12 variables.

Students and faculty in institution E differed on the following variables: numeracy skills, written communication skills, oral communication skills, interpersonal skills, ethical and moral values, thinking skills, lifelong learning skills, work ethic, and leadership skills across the business core classes. The null hypothesis was rejected on these variables and retained on the other 3 variables. These findings are summarized in Table 64.

Hypothesis 2 tested if there was any difference in the perceptions of students and their professors within each of the five institutions regarding those skills they consider important for employment that were addressed in their respective business majors. The following are the summary findings for hypothesis 2.

Students and faculty in institution A differed on the variables thinking skills and problem-solving skills across the business majors. The null hypothesis was rejected on these variables and retained on the other 10 variables.

Students and faculty in institution B differed on the variable problem-solving skills across the business majors. The null hypothesis was rejected on this variable and retained on the other 11 variables.

Students and faculty in institution C did not differ on any of the variables across the business majors. Therefore, the null hypothesis was retained on the 12 variables.

TABLE 64

SIGNIFICANT DIFFERENCES AT THE .05 LEVEL BETWEEN STUDENTS AND FACULTY
WITHIN EACH SCHOOL REGARDING THE IMPORTANCE OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CURRICULUM: CORE CLASSES

Variables	A	B	C	D	E
1. Numeracy skills	F +				F -
2. Written comm. skills					F -
3. Oral comm. skills					F -
4. Interpersonal skills					F -
5. Ethical & moral values					F -
6. Thinking skills		F +	F -		F -
7. Lifelong learning					F -
8. Work ethic					F -
9. Leadership skills					F +
10. Problem-solving skills		F +			
11. Teamwork skills		F +			
12. Computer technology skills					

Note. F + = faculty's mean score larger.

Students and faculty in institution D did not differ on any of the variables across the business majors. Therefore, the null hypothesis was retained on the 12 variables.

Students and faculty in institution E differed on the following variables across the business majors: numeracy skills, written communication skills, oral communication skills, interpersonal skills, ethical and moral values, thinking skills, leadership skills and teamwork skills. The null hypothesis was rejected on these variables and retained on the other 4 variables. These findings are summarized in Table 65.

Hypothesis 3 tested if there was any difference in the perceptions of students and their professors within each of the five institutions regarding the degree of integration of employability skills in their respective business core classes. The following are the summary findings for hypothesis 3.

Students and faculty in institution A differed on the variables thinking skills and problem-solving skills across the business core classes. The null hypothesis was rejected on these variables and retained on the other 10 variables.

Students and faculty in institution B differed on the following variables across the business core classes: numeracy skills, written communication skills, thinking skills, work ethic, leadership skills, and problem-solving skills. The null hypothesis was rejected on these variables and retained on the other 6 variables.

Students and faculty in institution C differed on the variables ethical and moral values and problem-solving skills across the business core classes. The null hypothesis was rejected on these variables and retained on the other 10 variables.

Students and faculty in institution D did not differ on any of the variables across

TABLE 65

SIGNIFICANT DIFFERENCES AT THE .05 LEVEL BETWEEN STUDENTS AND FACULTY
WITHIN EACH SCHOOL REGARDING THE IMPORTANCE OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CURRICULUM: MAJORS

Variables	A	B	C	D	E
1. Numeracy skills					F -
2. Written comm. skills					F -
3. Oral comm. skills	S +				F -
4. Interpersonal skills					F -
5. Ethical & moral values					F -
6. Thinking skills	F -				F -
7. Lifelong learning					
8. Work ethic					
9. Leadership skills				S +	F -
10. Problem-solving skills	F +	F -			
11. Teamwork skills					F -
12. Computer technology skills					

Note. F + = faculty's mean score larger; S + = students' mean score larger.

the business core classes. Therefore, the null hypothesis was retained on the 12 variables.

Students and faculty in institution E differed on the following variables across the business core classes: written communication skills, interpersonal skills, ethical and moral values, thinking skills, lifelong learning skills, work ethic, and problem-solving skills. The null hypothesis was rejected on these variables and retained on the other 5 variables. These findings are summarized in Table 66.

Hypothesis 4 tested if there was any difference in the perceptions of students and their professors within each of the five institutions regarding the degree of integration of employability skills in their respective business majors. The following are the summary findings for hypothesis 4.

Students and faculty in institution A differed on the variables ethical and moral values and problem-solving skills across the business majors. The null hypothesis was rejected on these variables and retained on the other 10 variables.

Students and faculty in institution B differed on the following variables across the business majors: numeracy skills, written communication skills, interpersonal skills, thinking skills, work ethic, and problem-solving skills. The null hypothesis was rejected on these variables and retained on the other 6 variables.

Students and faculty in institution C differed on the variable lifelong learning skills across the business majors. The null hypothesis was rejected on this variable and retained on the other 11 variables.

TABLE 66

SIGNIFICANT DIFFERENCES AT THE .05 LEVEL BETWEEN STUDENTS AND FACULTY
WITHIN EACH SCHOOL REGARDING THE INTEGRATION OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CURRICULUM: CORE CLASSES

Variables	A	B	C	D	E
1. Numeracy skills		F -			
2. Written comm. skills		F -			F -
3. Oral comm. skills					
4. Interpersonal skills					F -
5. Ethical & moral values			F -		F -
6. Thinking skills	F -	F -			F -
7. Lifelong learning					F -
8. Work ethic		F -			F -
9. Leadership skills		F -			
10. Problem-solving skills	F -	F -	F -		F -
11. Teamwork skills					
12. Computer technology skills					

Note. F - = faculty's mean score larger.

Students and faculty in institution D differed on the variable numeracy skills across the business majors. The null hypothesis was rejected on this variable and retained.

Students and faculty in institution E differed on the following variables across the business majors: written communication skills, interpersonal skills, ethical and moral values, and thinking skills. The null hypothesis was rejected on these variables and retained on the other 8 variables. These findings are summarized in Table 67.

Hypothesis 5 tested if there was any difference in the perceptions of students and their professors within each of the five institutions regarding the skills the students possess and the skills professors perceive the students possess in their respective core classes. The following are the summary findings for hypothesis 5.

Students and faculty in institution A differed on the following variables across the business core classes: written communication skills, thinking skills, work ethic, and leadership skills. The null hypothesis was rejected on these variables and retained on the other 8 variables.

Students and faculty in institution B differed on the following variables across the business core classes: ethical and moral values, thinking skills, work ethic, and teamwork skills. The null hypothesis was rejected on these variables and retained on the other 8 variables.

Students and faculty in institution C differed on the variables numeracy skills and problem-solving skills across the business core classes. The null hypothesis was rejected on these variables and retained on the other 10 variables.

TABLE 67

SIGNIFICANT DIFFERENCES AT THE .05 LEVEL BETWEEN STUDENTS AND FACULTY
WITHIN EACH SCHOOL REGARDING THE INTEGRATION OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CURRICULUM: MAJORS

Variables	A	B	C	D	E
1. Numeracy skills				F +	
2. Written comm. skills		F +			F +
3. Oral comm. skills					
4. Interpersonal skills					F +
5. Ethical & moral values	F +				F +
6. Thinking skills		F +			F +
7. Lifelong learning			F +		
8. Work ethic		F +			
9. Leadership skills					
10. Problem-solving skills	F +	F +	F +		
11. Teamwork skills					
12. Computer Technology skills					

Note. F + = faculty 's mean score larger.

Students and faculty in institution D differed on the following variables across the business core classes: numeracy skills, written communication skills, interpersonal skills, ethical and moral values, thinking skills, lifelong learning skills, work ethic, leadership skills problem-solving skills, and teamwork skills. The null hypothesis was rejected on these variables and retained on the other 2 variables.

Students and faculty in institution E differed on the following variables across the business core classes: numeracy skills, written communication skills, ethical and moral values, thinking skills, lifelong learning skills, leadership skills, and computer technology skills. The null hypothesis was rejected on these variables and retained on the other 5 variables. These findings are summarized in Table 68.

Hypothesis 6 tested if there was any difference in the perceptions of students and their professors within each of the five institutions regarding the skills the students possess and the skills professors perceive the students possess in their respective business majors. The following are the summary findings for hypothesis 6.

Students and faculty in institution A differed on the variables written communication skills and computer technology skills across the business majors. The null hypothesis was rejected on these variables and retained on the other 10 variables.

Students and faculty in institution B differed on the following variables across the business majors: oral communication skills, ethical and moral values, thinking skills, work ethic, and teamwork skills. The null hypothesis was rejected on these variables and retained on the other 7 variables.

TABLE 68

SIGNIFICANT DIFFERENCES AT THE .05 LEVEL BETWEEN STUDENTS AND FACULTY
WITHIN EACH SCHOOL REGARDING THE POSSESSION OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CURRICULUM: CORE CLASSES

Variables	A	B	C	D	E
1. Numeracy skills			S -	S +	S +
2. Written comm. skills	S -			S +	S -
3. Oral comm. skills					
4. Interpersonal skills				S +	
5. Ethical & moral values		S -		S +	S +
6. Thinking skills		S -		S -	S +
7. Lifelong learning				S +	S -
8. Work ethic	S -	S -		S -	
9. Leadership skills	S +			S +	S -
10. Problem-solving skills			S -	S -	S +
11. Teamwork skills		S +		S +	
12. Computer technology skills					S +

Note. S - = students' mean score larger.

Students and faculty in institution C did not differ on any of the variables across the business majors. Therefore, the null hypothesis was retained on the 12 variables.

Students and faculty in institution D differed on the following variables across the business majors: numeracy skills, written communication skills, oral communication skills, ethical and moral values, thinking skills, lifelong learning skills, work ethic, leadership skills, and computer technology skills. The null hypothesis was rejected on these variables and retained on the other 3 variables. These findings are summarized in Table 69.

Hypothesis 7 tested if there was any difference in the perceptions of students and their professors within each of the five institutions regarding the strategies used to integrate employability skills in their respective business core classes. The following are the summary findings for hypothesis 7.

Students and faculty in institution A did not differ on any of the variables across the business core classes. Therefore, the null hypothesis was retained on the 6 variables.

Students and faculty in institution B did not differ on any of the variables across the business core classes. Therefore, the null hypothesis was retained on the 6 variables.

Students and faculty in institution C differed on the following variables across the business core classes: (1) students encouraged to work in groups; and (2) the lecture method. The null hypothesis was rejected on these variables and retained on the other 4 variables.

Students and faculty in institution D differed on the following variables across the business core classes: (1) case studies, (2) business simulations with computers; and (3)

TABLE 69

SIGNIFICANT DIFFERENCES AT THE .05 LEVEL BETWEEN STUDENTS AND FACULTY
WITHIN EACH SCHOOL REGARDING THE POSSESSION OF EMPLOYABILITY
SKILLS ACROSS THE BUSINESS CURRICULUM: MAJORS

Variables	A	B	C	D	E
1. Numeracy skills					S +
2. Written comm. skills	S +			S -	S +
3. Oral comm. skills		S -		S -	S -
4. Interpersonal skills				S -	
5. Ethical & moral values		S -		S -	S +
6. Thinking skills		S -		S -	S -
7. Lifelong learning				S -	S -
8. Work ethic		S -		S -	S -
9. Leadership skills				S -	S -
10. Problem-solving skills				S -	S +
11. Teamwork skills		S +		S +	
12. Computer technology skills	F +				S +

Note. F + = faculty's mean score larger; S + = students' mean score larger.

internship experiences. The null hypothesis was rejected on these variables and retained on the other 3 variables.

Students and faculty in institution E differed on the variable internship experiences across the business core classes. The null hypothesis was rejected on this variable and retained on the other 5 variables. These findings are summarized in Table 70.

Hypothesis 8 tested if there was any difference in the perceptions of students and their professors within each of the five institutions regarding the strategies used to integrate employability skills in their respective business majors. The following are the summary findings for hypothesis 8.

Students and faculty in institution A did not differ on any of the variables across the business majors. Therefore, the null hypothesis was retained on the 6 variables.

Students and faculty in institution B differed on the variable students encouraged to work in groups across the business majors. The null hypothesis was rejected on this variable and retained on the other 5 variables.

Students and faculty in institution C differed on the following variables across the business majors: (1) students encouraged to work in groups, and (2) the lecture method. The null hypothesis was rejected on these variables and retained on the other 4 variables.

Students and faculty in institution D differed on the following variables across the business majors: (1) case studies, and (2) internship experiences. The null hypothesis was rejected on these variables and retained on the other 4 variables.

Students and faculty in institution E differed on the variable individual presentation in the business majors. The null hypothesis was rejected on this variable and retained on the other 5 variables. These findings are summarized in Table 71.

TABLE 70

SIGNIFICANT DIFFERENCES AT THE .05 LEVEL BETWEEN STUDENTS AND FACULTY
WITHIN EACH SCHOOL REGARDING THE STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CURRICULUM: CORE CLASSES

Variables	A	B	C	D	E
1. Students encouraged to work in groups			F -		
2. Lecture method			S -		
3. Individual presentation					
4. Case studies				S -	
5. Business simulations with computers				S +	
6. Internship experiences				S -	S +

Note. F - = faculty's mean score larger; S + = students' mean score larger.

TABLE 71

SIGNIFICANT DIFFERENCES AT THE .05 LEVEL BETWEEN STUDENTS AND FACULTY
WITHIN EACH SCHOOL REGARDING THE STRATEGIES USED TO INTEGRATE
EMPLOYABILITY SKILLS ACROSS THE BUSINESS CURRICULUM: MAJORS

Variables	A	B	C	D	E
1. Students encouraged to work in groups		F -			
2. Lecture method					
3. Individual presentation					F -
4. Case studies				S -	
5. Business simulations with computers					
6. Internship experiences				S -	
<u>Note.</u> F - = faculty's mean score larger; S - = students' mean score larger.					

CHAPTER V

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

This chapter is organized into three sections. Section one summarizes the study, section two addresses the implications of the findings, and section three delineates the recommendations for research and practice.

Summary of the Study

This study investigated whether undergraduate schools of business are adequately preparing their students for the workplace. To achieve this purpose the study measured the perceptions of both final-year undergraduate business students and their professors to determine the extent to which they believed employability skills are important for future success in the workplace, the extent to which those skills are integrated in the curriculum, the degree to which students possess those skills, and the strategies used to integrate those skills in the undergraduate business curriculum.

The study was designed to seek answers for the following research questions:

1. What employability skills do final-year business students and faculty perceive to be important?
2. What employability skills do final-year business students and faculty perceive

were integrated throughout the business curriculum?

3. What employability skills do students and their professors perceive the students possess?

4. What are the strategies students and faculty perceive were applied to integrate employability skills across the curriculum?

Overview of the Literature

The quality of undergraduates entering the workplace as entry-level professionals continues to be of major concern to employers, policy makers, and those in higher education. Similar concerns in the 1950s led to the Gordon and Howell and Pierson reports that were commissioned by the Ford and Carnegie Foundations respectively. Following the release of those studies, and with pressure from the AACSB, business schools and departments of business in liberal arts colleges made greater efforts to have their curricula less vocational and more academic. A review of the Porter and McKibbin study, which was done in the 1980s to ascertain the degree to which management education in the United States of America was responsive to the needs of stakeholders, indicated that some progress had been made. Specifically, the undergraduate business curriculum had adopted a greater amount of liberal arts components that added depth and breath to the curriculum.

An examination of those studies was important to appreciate the degree to which the AACSB and business schools are responding to their external environment. Prior to the release of the Porter and McKibbin study, dramatic political and economic changes

had began to transpire worldwide that would eventually impact the business environment. Those changes coupled with technological advancements in the 1980s created opportunities and greater challenges for corporations in the United States of America.

Consequently, there began a growing demand for workers who are equipped with a repertoire of skills and habits that could make their employers more competitive. Employers, policy makers, students, and educators began to voice demand for higher education to provide contextualize learning environments that would better prepare students for the world of work. These calls led to landmark studies such as the U.S. Department of Education's SCANS report and the American Society for Training and Development study conducted by Carnevale et al. (1990).

The current study examined some of the major research that was done on employability skills and the business curriculum during the past decade. The study looked specifically at the history of the curriculum, and influences that shaped its development. It addressed some of the issues that are expected to be common features of the future workplace and how those issues are likely to impact business graduates entering the 21st-century workplace. The SCANS report, the ASTD study, and other studies provided the theoretical base for the emphasis on the 12 specific skills that were the focus of this study.

Findings from the literature suggested that if higher education were to take seriously the notion that employability skills are important for career success, and if they were to adopt specific applied learning strategies to integrate those skills, then students will experience a smoother transition from the classroom to the office. The literature also

indicated that employers are willing to become partners with higher education in improving the quality of the undergraduate curriculum.

Methodology

This study employed the survey research method to ascertain from students and their faculty their perceptions of the extent to which employability skills are integrated across the undergraduate business curriculum. Two instruments were designed to collect the data. Both instruments were similar except that the students' copy contained an additional section on demographic characteristics. The population for this study was composed of 293 undergraduate business students and 49 faculty who returned valid questionnaires. The samples were intact, convenience samples selected for their availability and for their representative attributes rather than sampled at random. There was no follow-up sampling of non-respondents due to prior agreement between the researcher and the institutions.

In order to provide answers for the four research questions, the respondents' responses to each of the 12 employability skills were rank ordered from 1 to 12. This was done on the basis of their perception of (1) the importance of the skills, (2) the degree to which the skills were integrated, (3) the degree to which students possess the skills, and (4) the methods that were applied to integrate the skills across the curriculum.

The following criteria were used to rank the responses in each of the sections of the 5-point Likert scale. For section 1, students and their professors were rated as follows: 1.00-2.75, little importance; 2.76-3.75, some importance; and 3.76-5.00, much

importance. For section 2, students and their professors were rated as follows: 1.00-2.75, rarely integrated; 2.76-3.75, somewhat integrated; and 3.76-5.00, greatly integrated. For section 3, students and their professors were rated as follows: 1.00-2.75, little possession; 2.76-3.75, some possession; and 3.76-5.00, much possession. For section 4, students and their professors were rated as follows: 1.00-2.75, rarely applied; 2.76-3.75, somewhat applied; and 3.76-5.00, greatly applied.

The categories used for the purpose of making distinctions regarding the degree of importance, integration, and skills possession, and methods are *relative* expressions of emphases. Response categories such as “rarely,” “somewhat,” “much,” “little,” “some,” and “greatly” can be perceived differently because they are not absolute terms.

The *t*-test of two independent means was used to test the hypotheses that students and their professors within each of the schools did not differ in their perceptions of the (1) importance, (2) degree of integration, (3) degree of possession, and (4) methods applied to integrate employability skills across the undergraduate curriculum. Statistical Package for the Social Sciences (SPSS) version 6.1 was used to run the relevant statistics.

Demographic Information

The five institutions from which the data were collected comprised the following. Institution A is a small private university in the state of Michigan. At the time the study was done, the institution was placed in AACSB candidacy status. Institution B is a small private university in the state of Tennessee. Institution C is a small private liberal arts college in the state of Indiana. Institution D is a large public university in the state of

Michigan. Institution E is also a large public university in the state of Michigan, and the only AACSB-accredited institution in the study at the time the data were collected.

There were 293 valid questionnaires returned by students from the five institutions. The sample of 293 students was drawn from 955 final-year undergraduate business majors resulting in a 31.6% response rate. Most of the students majored in accounting, management, marketing, or finance. However, approximately 18% majored in other areas such as computer science, economics, and business administration.

The data revealed that over 53% of the students worked part-time while another 13% worked full-time. The other 34% were not employed. Approximately 92% of the students were enrolled full-time in their business programs. The three private institutions had between 97 and 100% full-time enrollment whereas the two public universities had between 88 and 92 % full-time enrollment.

An important characteristic of the students is that approximately 73% of them had no prior professional work experience. Therefore, it can be construed that any employable skills that they perceived they possess may have been acquired while pursuing their business studies. The sample of 49 faculty was drawn from a total of 115 business professors resulting in a 43% response rate. For the purpose of this study, no additional demographic information was requested from the faculty.

Findings of Student and Faculty Perceptions of Employability Skills

The findings of this study were based on students' and faculty's perceptions of the extent to which they believed the following employability skills were integrated

throughout the undergraduate business curriculum:

1. Numeracy Skills
2. Written Communication Skills
3. Oral Communication Skills
4. Interpersonal Skills
5. Ethical and Moral Values
6. Thinking Skills
7. Lifelong Learning Skills
8. Work Ethic
9. Leadership Skills
10. Problem-solving Skills
11. Teamwork Skills
12. Computer Technology Skills.

Research Question 1

Research question 1 asked: What employability skills do students and faculty perceive to be important?

The descriptive analysis of the data indicated that the final-year undergraduate students and their professors within the five institutions perceived all the skills were very important for inclusion throughout the business curriculum (mean score on each variable was greater than 3.75). In fact, the mean score for students on the importance of the skills across the core classes ranged from 3.89 to 4.45, whereas across the business majors the

mean scores ranged from 3.99 to 4.61.

The students ranked oral communication and written communication skills among the top five most important skills. This finding revealed that the students' perceptions of the importance of these skills were not different from the perceptions of employers and other professionals. These findings support earlier studies done by Maes, Weldy, and Icenogle (1997).

Faculty within the five institutions ranked written and oral communication skills among the top five across the business core classes. However, across the business majors, written communication skills was ranked 7. It is unclear why professors did not rank this skill higher in the majors where the class sizes tend to be smaller, which would allow for more feedback between students and faculty. Nevertheless, the importance ascribed to those skills by professors is consistent with research findings reported by Levenburg (1996). It is notable that when the mean score of the highest ranked item, thinking skills, mean score 4.83, and the mean score of oral communication, which was ranked 7, mean 4.55, were compared, a difference of 0.28 was noted. This suggested that the perception of the items ranked 1 and 7 were not far apart.

Students and faculty seemed to agree that thinking skills or the ability to make decisions, consider risks, and generate alternative and innovative ideas are important for success in the workplace. Students ranked thinking skills 4 across the core classes and 1 across the business majors; while faculty ranked this skill as 1 across the business core and the business majors. The high level of importance ascribed to thinking skills by both

students and faculty in this study is supported by the literature. For instance, Carnevale et al. (1990); Katzenbach and Smith (1994), the U.S. Department of Education (1991), and Green and Seymour (1991) have indicated that the workplace of the 21st century will require entry-level workers who possess the ability to analyze, assess, compare, contrast, and generate ideas.

In comparing the highest ranked and the lowest ranked skills across the business core and the business majors by students, leadership skills across the core classes with a mean score of 3.89 and thinking skills across the majors with a mean score of 4.81 was the range with a difference of 0.92. This seemed to suggest that students' perceptions of the importance of the skills were within a very narrow range.

When the highest ranked and the lowest ranked skills by faculty across the business core and business majors are compared, lifelong learning with a mean score of 4.00 across the core classes and thinking skills with a mean score of 4.83 across the majors was the range with a difference of 0.83. This suggested little difference in professors' perceptions of the importance of the skills. Overall, the faculty rated the importance of employability skills more highly than did the students (see mean scores). These findings are consistent with those of Heskin, Cheng, and Sharma (1994) whose research on the generic skills requirements of Swinburne University of Technology stakeholders found that while there was a high degree of consensus among the faculty and students regarding the importance of generic skills, the faculty rated the skills higher than the students.

Research Question 2

Research question 2 asked: What employability skills do students and faculty perceive were integrated throughout the business curriculum?

Students perceived that only teamwork skills (mean score 3.79) and problem-solving skills (mean score 3.77) were greatly integrated across the business core classes. The other 10 skills were somewhat integrated with mean scores between 2.76 and 3.75. While the students seemed to agree that some integration was done, the mean scores suggested that they perceived more effort could be made to improve the level of integration of the 10 skills that were not greatly integrated.

On the other hand, the students perceived that problem-solving skills, teamwork skills, thinking skills, written communication skills, and numeracy skills were greatly integrated across the business majors. The other 7 skills were somewhat integrated with mean scores between 2.76 and 3.75.

The perception that most of the skills were not sufficiently integrated should be of concern to the business schools. The fact that the students believed the skills are important for workplace success and should be addressed across the curriculum will likely cause them to question whether their institutions are making serious attempts to prepare them for the job market.

Contrary to the students' perceptions, the faculty perceived that all the skills were greatly integrated across the business core classes with the exception of interpersonal skills, computer technology skills, leadership skills, and lifelong learning skills. The faculty perceived those four skills were somewhat integrated (mean scores between 2.76

and 3.75).

The faculty perceived that most of the skills were fully integrated across the majors with the exception of computer technology skills, lifelong learning skills, and leadership skills. Those three skills were perceived to be somewhat integrated.

Faculty's perceptions of the inadequate integration of leadership skills is supported by a study done by Rifkin (1996), which revealed the paucity of leadership education in the business schools. Research findings from studies done by Clinebell and Clinebell (1995) and Bialaszewski et al. (1992) indicated that not enough has been done to integrate computer technology skills across the business curriculum.

Research Question 3

Research question 3 asked: What employability skills do students and their professors perceive the students possess?

Students perceived that they had much possession of all the employability skills across the business core classes and the business majors except computer technology skills. On those skills that the students perceived they had much possession, the mean scores were above 3.75.

The computer technology mean score of 3.71 across the core classes was only 0.05 less than the 3.76 rating needed to be classified as fully possessed. Also, the computer technology mean score of 3.75 across the business majors was only 0.01 less than the 3.76 rating needed to be classified as fully possessed. Therefore it can be construed that the students believed they possessed the employability skills.

It is worth observing that whereas the students perceived that many of the skills were not integrated, they believed in fact that they possessed those skills. There are several explanations for these contradictory findings. First, students may have perceived they possessed the skills prior to enrolling in their business program. Second, they may have perceived they acquired the skills in the business programs in spite of the perceived failure of the schools to integrate them. Third, the students may have perceived that they acquired those skills from other areas of their college experience such as the general education component and not from the business program.

The faculty perceived that the students did not have much possession of any of the skills across the business core classes (mean scores of 3.76 and above). However, their mean scores, which were between 2.76 and 3.75, suggested that they believed the students had some possession of the skills.

The faculty perceived that the students fully possessed interpersonal skills, teamwork skills, problem-solving skills, and ethical and moral values across the business majors (mean scores were above 3.75). However, they perceived the students had some possession of the other 8 skills because the mean scores were between 2.76 and 3.75 across the business majors. It is important to note that faculty perceived they integrated or somewhat integrated all the skills across the curriculum, yet they did not believe the students had much possession of those skills. It is necessary to ask the question, Why is it the faculty perceived their students lacked much possession of the skills even though they believed that the skills were integrated? There are some possible explanations for this contradiction. The faculty may believe that although they integrated the skills, the

students were unable or unwilling to grasp them. Another possible explanation could be that the tools used to assess the students were not adequately designed to measure or test for those skills. It is also possible that both students and faculty have faulty perceptions of the degree to which students possess the skills. There is also the possibility that the professors considered themselves excellent teachers, and their students incapable of acquiring the skills they integrated.

Research Question 4

Research question 4 asked: What are the strategies students and faculty perceive were applied to integrate employability skills in the curriculum?

Students perceived that only the lecture method with a mean score of 4.11 was greatly applied across the business core classes, whereas group work, case studies, internship experiences, and individual presentations by students, with mean scores between 2.76 and 3.75 were somewhat applied across the business core. The students perceived that business simulations with computers, with a mean score of 2.64, were rarely applied across the business core classes.

The students' rating of the lecture method as the only teaching strategy that was greatly applied across the core classes supports findings in the literature that suggest that the traditional lecture method is still very popular and difficult for professors to abandon (Diamantes, 1996; Meyers & Jones, 1993). The other three strategies that the students perceived to be somewhat applied indicate that the business curriculum is embracing multiple strategies to integrate employability skills. These findings are supported by

research done by Astin (1993) and Kuh and Vespers (1997), which identified group activities among students, active learning activities, and case-based learning among the strategies being used more frequently in undergraduate programs.

The students' perception that business simulations with computers were rarely applied across the business core classes contradicts previous research done by Keys and Wolfe (1990), which highlighted the growing use of computer simulations in business schools. However, many of the previous studies, including Keys and Wolfe (1990), focused on the use of simulations in selected business courses as opposed to the whole curriculum.

The students perceived that the lecture method, group work, and case studies, with mean scores above 3.76, were greatly integrated across the business majors. This is not surprising because, on some of the questionnaires that were returned, faculty indicated that the smaller class sizes in the business majors allowed them to apply more group assignments and projects. Furthermore, other studies seemed to support the fact that group work and case studies are used more frequently in the upper division business courses and that many of those courses comprise the majors. Consequently, the students' perceptions of the strategies that were applied may have merit.

Students perceived that internship experiences were somewhat applied across the business core classes and the majors with mean scores of 3.34 and 3.73 respectively. These findings seem to suggest that internship opportunities may not have been available to all the students.

It is unclear why students perceived that individual presentations by students were

only somewhat applied across the business majors. This finding is surprising because a number of the faculty who responded to the survey commented that they required more individual presentations in the majors because there were much fewer students in those classes.

The students perceived that business simulations with computers, with a mean score of 2.72, were rarely applied across the business majors. This finding is consistent with their perception of the integration of the skills across the core classes. These findings are also supported by previous research findings by Clinebell and Clinebell (1995), which suggested that even though schools have begun to expose their students to computer technology, many of them have not yet made serious efforts to infuse the technology across the business curriculum.

Faculty perceived that the lecture method with a mean score of 4.02 was greatly applied across the business core classes. This finding is consistent with the students' perception, and is supported by the literature (Birk, 1997; Ejigiri & Tarver, 1994). Faculty's perception that the lecture method was the strategy most frequently used to integrate employability skills suggested that these institutions have not yet elevated other teaching strategies to the same level of prominence as the lecture approach. This is probably because many faculty perceive the lecture method as one of the more effective strategies for introducing new concepts. Also, many faculty believe it is one certain approach to ensuring that students are introduced to the many concepts that have crowded the curriculum.

The faculty perceived that group work by students, individual presentations by

students, and case studies, with mean scores between 2.76 and 3.75, were somewhat applied across the business core. These findings are consistent with the students' perception of the extent to which these strategies were applied. Findings from research conducted by Astin (1993) suggested that there is some association between the acquisition of job-related skills and the teaching strategies that institutions utilize across the curriculum. Therefore, if the faculty's perceptions have merit, then the students may not be adequately exposed to the skills as they should.

The faculty perceived that internship experiences, with a mean score of 2.52, were rarely applied across the business core classes. It is unclear why the faculty had this perception. However, I am inclined to speculate that the offering of internship opportunities to students at these schools is done through some central placement office without the knowledge of many of the professors. Also, many internship opportunities are made available to the students in their senior year. At this stage many undergraduate business students would have completed most of their business core classes. Therefore, the faculty would perceive that no internship is made available to the students.

The faculty perceived that group work, the lecture method, individual presentation by students, and case studies, with mean scores above 3.75, were greatly applied across the business majors. These results are consistent with findings from Porter and McKibbin's (1988) research, which indicated that business schools had begun to adopt varied teaching strategies that are likely to create a more applied learning environment for the students.

The faculty perceived that internship experiences, with a mean score of 3.18, were

somewhat applied across the business majors. This finding is consistent with the students' perception. However, the fact that the students and faculty seemed to agree that this approach was somewhat applied across the majors signified that the institutions were taking steps to expose the students to the workplace before they graduate.

The faculty perceived that business simulations with computers, with a mean score of 2.55, were rarely applied across the business majors. Both the students and the faculty agreed that this strategy was rarely applied across the core and the majors. These findings contradict previous research findings by Engeholm and Bigel (1996), Faria (1987), and Keys and Wolfe (1990), which showed that there was widespread use of business games in 4-year business schools.

Interpretation of Findings From Hypotheses

An analysis of the hypotheses for each institution revealed some notable patterns that may have implications for the business schools. In reviewing the data on hypothesis 1, which addressed the importance of employability skills across the business core classes, students and faculty in institution A differed on 1 skill; students and faculty in institution B differed on 3 skills; students and faculty in institution C differed on 1 skill; students and faculty in institution D did not differ on any of the skills; and students and faculty in institution E differed on 10 skills. An examination of the mean scores indicated that both students and faculty ascribed high importance to the 12 skills.

However, institution E, which was the only AACSB-accredited school in the study, seemed to be different because the students and faculty differed significantly in

their perceptions of the level of importance that should be placed on those skills. This would likely hinder faculty's efforts to emphasize the skills across the curriculum if students have a lower perception of their importance. It is notable that within each of the institutions, the mean scores for the faculty were generally higher than the mean scores for the students.

In hypothesis 2, which addressed the importance of employability skills across the business majors, students and faculty in institution A differed on 3 of the skills; students and faculty in institution B differed on 1 skill; students and faculty in institution C did not differ on any of the skills; students and faculty in institution D differed on 1 skill; and students and faculty in institution E differed on 8 skills. The mean scores suggested that students and their faculty ascribed high importance to the skills across the business majors.

However, students and faculty in institution E differed significantly regarding the importance of most of the skills. In looking at the findings, 7 of the 12 skills on which they differed in the core classes are among the skills on which they differed in the major. It appears that the faculty seemed to be adamant and idealistic about the importance of those skills.

In hypothesis 3, which addressed the integration of employability skills across the core classes, students and faculty in institution A differed on 2 skills; students and faculty in institution B differed on 6 skills; students and faculty in institution C differed on 2 skills; students and faculty in institution D did not differ on any of the skills; and students and faculty in institution E differed on 7 of the variables.

On most of the skills, faculty within each of the institutions rated the level of integration of the skills more highly than their students. Students and faculty in institutions B and E seemed to disagree on the extent of integration of many of the skills. Institution B, which is small and privately owned, revealed similar characteristics as institution E, which is publicly funded and operated. The high number of significant differences reflected by both schools on the integration of employability skills may indicate that those schools are not successful in convincing their students that they are integrating the skills. It could also imply that the students are simply incorrect in their perceptions that some of the skills are not integrated. There is also the possibility that these institutions lacked the appropriate quality-control measures to detect the level of incongruence between the students and the faculty.

In hypothesis 4, which addressed the integration of employability skills across the business majors, students and faculty in institution A differed on 2 skills; students and faculty in institution B differed on 6 skills; students and faculty in institution C differed on 2 skills; students and faculty in institution D differed on 1 skill; and students and faculty in institution E differed on 4 skills.

Students and faculty in institution B differed on 5 of the 6 skills in the majors that they differed on in the core classes. The faculty's mean scores were significantly higher than the students' on all 6 variables in the majors, suggesting that students were less impressed with the level of integration of those skills than the faculty.

Several students in institutions D and E commented on their questionnaires that their schools were placing too much emphasis on group activities. This is not surprising

since the AACSB and employers have complained of the need for entry-level employees who possess teamwork skills. However, a close examination of the mean scores for students in all the schools across the curriculum showed high mean ratings on the integration of teamwork skills. Therefore, it is unclear why the students in institutions D and E would complain of the degree to which the skill was integrated. It seems possible that the curriculum in institutions D and E failed to heighten the students' awareness of the value of integrating group work across the curriculum.

In hypothesis 5, which addressed the possession of employability skills across the business core classes, students and faculty in institution A differed on 4 skills; students and faculty in institution B differed on 4 skills; students and faculty in institution C differed on 2 skills; students and faculty in institution D differed on 11 skills; and students and faculty in institution E differed on 8 skills.

Within each of the five institutions, the students' perceptions of the degree to which they possessed the skills were higher than those of the faculty. In the two public universities (institutions D and E), it appeared that the faculty were not convinced that the students possessed the skills even though the students indicated that they possessed them. This is particularly troubling because it is unlikely students will take the necessary steps to acquire or improve themselves with skills they now lack if they are convinced they already possess those skills.

The same argument can be made for institutions A and B that differed on 4 skills and institution C that differed on 2 skills. The fact that the faculty rate the students lower on the possession of the skills than the students did indicates that the faculty may have a

greater appreciation of the demands of the work environment. It is also possible that the faculty do not appreciate the cognitive and affective abilities of their students.

In hypothesis 6, which addressed the possession of employability skills across the business majors, students and faculty in institution A differed on 2 skills; students and faculty in institution B differed on 5 skills; students and faculty in institution C did not differ on any of the skills; students and faculty in institution D differed on 10 skills; and students and faculty in institution E differed on 10 skills.

The results of the findings from the two public universities are similar across the business core classes and the business majors regarding the possession of employability skills. The students' mean scores suggested that they perceived they had acquired the skills, whereas professors did not share the same perception.

In hypothesis 7, which addressed the strategies used to integrate employability skills across the business core classes, students and faculty in institution A did not differ on any of the strategies; students and faculty in institution B did not differ on any of the strategies; students and faculty in institution C differed on 2 strategies; students and faculty in institution D differed on 3 strategies; and students and faculty in institution E differed on 1 strategy.

In institution C, faculty perceived they had greatly integrated group work whereas students perceived little integration was done. The students and faculty within this institution also differed on the use of the lecture method. The students perceived it was greatly integrated whereas faculty believed it was somewhat integrated.

In institution D, students and faculty differed on the application of case studies.

business simulations with computers, and internship experiences. On each strategy, the students' mean score ratings were higher than the faculty's mean score ratings, which suggested that the students had a more positive perception than their faculty of the degree to which the strategies were used. Another interpretation is that students believed that sufficient use was made of the strategies, whereas professors perceived they were not sufficiently applied across the majors. It is also possible that the students are less aware of the value of these strategies. Consequently, they were more inclined to perceive the usage of the strategies differently from their professors.

In hypothesis 8, which addressed the strategies used to integrate employability skills across the business majors, students and faculty in institution A did not differ on any of the strategies; students and faculty in institution B differed on 1 strategy; students and faculty in institution C did not differ on any of the strategies; students and faculty in institution D differed on 2 strategies; and students and faculty in institution E differed on 1 strategy.

In institution B, students and faculty both perceived that group work was greatly applied. Although the faculty's mean rating was significantly higher than the students', the finding suggested that the institution is seriously integrating group work in the majors. In fact, the students and faculty within the five schools seemed to agree that at least some attempts were made to apply group work, the lecture method, individual presentations, case studies, and internship experiences across the majors. It was also apparent within the five schools that business simulations with computers were rarely applied. It is worth noting that findings from related literature on employability skills

suggests that opinion is divided as to the extent some skills such as work ethic and ethical and moral values can be changed by the curriculum. Therefore, the reader should exercise caution regarding the findings related to such competencies.

Summary of the Findings

This study was undertaken to build on the literature and to push back the boundaries of understanding and practice in higher education. Specifically, this study sought to determine students' and faculty's perceptions of the importance, level of integration, the level of possession, and the strategies used to integrate employability skills across the undergraduate curriculum. Therefore, in summary, the following findings were observed on the basis of the student and faculty survey results:

1. Students and faculty within each of the five schools perceived employability skills to be very important.
2. Although the students and faculty rated the skills as very important, faculty mean scores were generally higher than the students' on most of the skills.
3. The size of the institution, its AACSB-accredited status, and the fact that it is public or private seemed to make little difference in the perceptions of the students and their faculty regarding the importance of the skills.
4. Students did not believe most of the skills were integrated, whereas faculty perceived that they integrated most of the skills.
5. Faculty within the two public universities did not perceive that their students possessed the necessary employability skills. Also, the faculty in institution B disagreed

with their students on the degree to which the students possessed some of the skills.

6. The five institutions relied heavily on the lecture method and to a lesser degree group work to integrate employability skills across the curriculum. However, some application was made of case studies, individual presentations, and internship experiences.

7. The five institutions rarely applied business simulations with computers across the business curriculum.

8. Institution E, which is publicly funded and AACSB accredited, showed significant differences in the perceptions of its students and faculty regarding the importance, integration, and possession of employability skills.

Implications for Higher Education

Since the 1980s, a number of studies have been done on employability skills and the level of preparedness of entry-level job seekers. However, the bulk of those studies focused on secondary and vocational institutions. Of the studies that addressed the integration of employability skills in the business curriculum, most were confined to a few of the skills or to an individual skills group. Also, many of those studies did not target students who were about to enter the job market as entry-level professionals. The literature is sparse regarding research that addresses the issues of students' and faculty's perceptions of the importance of employability skills, the integration of employability skills, the possession of employability skills, and specific strategies used to integrate those skills across the undergraduate business curriculum.

This study focused on final-year undergraduate business students and their professors in five tertiary institutions. The study made the distinction between the business core classes and the business majors in order to obtain a better comprehension of students' and faculty's perceptions of employability skills across the whole undergraduate business curriculum.

Implications for Theory

The findings from this study revealed that students and faculty ascribed a high level of importance to the 12 employability skills across the business core classes and the business majors. However, the faculty were more likely to rate the skills higher than the students. The findings suggested that the students and faculty are not oblivious to the high value that employers place on employability skills. Also, it seemed that the size of the institutions and their accrediting status do not have a significant effect on the importance the students and faculty ascribed to the skills.

However, institution E, which was the only AACSB-accredited school in the study, showed significant discrepancies between its students and faculty on the importance of at least 7 of the 12 skills across the curriculum. It is difficult to explain this finding considering that the students and faculty within this institution did show high mean scores on all the skills.

The study revealed some disturbing findings on the integration of employability skills that have implications for educational theory. For instance, the students did not believe most of the skills were integrated across the curriculum even though the faculty

perceived they integrated the skills. It would be interesting to ascertain if students perceive skill integration differently from their faculty and, if they do, what steps can higher education take to bridge the gap. It is important that the business curricula within the five institutions accommodate the perspectives of their stakeholders. The dynamic features of an open systems approach to curriculum development and implementation would enable students and their faculty to have a better understanding of each other's perceptions regarding the effectiveness of the curriculum.

The five schools seemed to show little uniform results in their students' and faculty's perceptions of the integration of the skills. However, it is unclear the impact school size and accrediting status had on how each institution incorporated the skills in its curriculum. Previous studies have shown that an institution's size, and accrediting status do have some effect on the level of institutional support for skills integration (Astin, 1994; Clinebell & Clinebell, 1995; Yunker, 1998). Therefore it is possible that the size and accrediting status of the institutions in this study had some impact on the degree to which the skills were integrated across the curriculum.

Another interesting implication of the findings is that the tenure status of the faculty may have some impact on the teaching methods that were applied across the curriculum. Although the scope of the study did not test for this possibility, previous research (Feldman, Dow, & Raghunandan, 1995) have shown that experience can influence how faculty integrate skills and concepts. The research by Feldman et al. (1995) suggests that non-tenured faculty are sometimes unwilling to experiment with non-traditional methods because of the risk of negative student evaluations. On the other

hand, tenured faculty who are comfortable with the traditional teaching strategies may have little incentive to adopt different approaches.

The findings from this study that showed that the institutions relied heavily on the lecture method should discourage those educational researchers who have argued that higher education may not be taking seriously those research findings which revealed that other instructional methods are more effective in integrating cognitive and affective skills. It is possible that business school faculty who are normally educated to be content specialists, were not adequately exposed to the efficacy and application of non-traditional teaching methods in the classroom.

Also, the fact that business simulations with computers were rarely applied across the curriculum by the institutions may be due to a number of factors. For instance, there is a perception that this method is mostly appropriate for teaching the strategic management and other capstone courses. There is some merit to this belief because most business simulations require some basic comprehension of business principles which are normally covered in the business core classes. Therefore, it would be a challenge to both the teacher and the student for business simulations with computers to be integrated across all business courses before the student is exposed to those basic principles. Another explanation may be that the professors who are not computer literate may be disinclined to use this strategy. This would explain why students and faculty indicated that business simulations with computers were rarely applied across the business core classes.

The reason for the rare use of business simulations with computers across the

business majors may be due to the fact that most business simulations and computer games are designed for the capstone courses and classes in strategic management. Therefore, professors who do not teach these classes are unlikely to utilize this teaching method unless they have the skills and the inclination to design their own simulations that will explore the salient concepts they address in their classes.

In order for the undergraduate business student to possess and display the competencies that employers need, the student's whole college experience needs to be continually examined to ensure that he/she is exposed to the required skills and competencies needed for success in the society. The administrators and faculty within the business schools and those responsible for the general education curriculum within the five institutions should collaborate closely with employers, alumni, and policy makers to ensure that the curriculum reflects the demand and challenges posed by the external environment.

Implication for Practice

The difference in students' and faculty's perceptions of the integration of employability skills may be due to the level of faculty and student interaction. It is possible that the large class sizes in the public universities prohibit greater faculty/student interaction in the classes. Also, in both the large public and the small private institutions, faculty/student interaction may be minimized if the faculty are assigned duties other than teaching, research, academic advising, committee duties, and community service. Whereas some of these duties are recommended by accrediting

organizations. some of them are imposed on the faculty by their institutions. Higher education may need to look at the impact of the faculty's total work load and its effect on the faculty's ability to be more accessible to the students.

It is also possible that the faculty within the five institutions integrated the skills across the courses they taught, but no systematic effort was made by the business schools to integrate the skills across the whole curriculum. It would not be a surprise if this is what actually existed, since a number of the invalid questionnaires showed only the core column or the majors column was marked by the professors indicating that the classes they taught related to one or the other and not both. Also, a few of the professors commented that the courses they taught did not allow for the integration of some of the skills.

These comments and concerns raise the issue of whether the business schools were providing adequate resources for the integration of employability skills. There is a body of literature that supports the notion that (1) if there is a lack of funding for integration efforts, (2) a lack of leadership in the institutions for integration efforts, (3) a lack of resources for staff development, and (4) a lack of appropriate instruments for assessment (McEwen, McEwen & Anderson-Yates, 1992) then efforts at curriculum integration will fail.

The findings on students' and faculty's perceptions of the possession of employability skills have serious implications for the baccalaureate business program. For instance, why is it that institutions A and C showed significant differences on only a few of the skills across the curriculum, as opposed to institutions B, D, and E where the

students and faculty differed significantly on a large number of the skills? It is possible that in institutions A and C a stronger academic support infrastructure is in place to provide feedback to students on their level of proficiency. Also, the small size of these institutions may allow for a greater amount of time to be expended by faculty on individual students within and outside the classroom. Although students and faculty in institution B differed on 5 different skills across the curriculum, this figure was much less than the amount shown for D and E, the two large public universities. It is likely that the smaller class sizes that are common in the small institutions facilitate more effective integration of employability skills. If this actually existed in these institutions, then more financial resources need to be expended to reduce the size of the core classes that tend to be large, and the size of most of the classes in the large public institutions.

Another possible explanation could be that many business students do not come in contact with their business professors until they have achieved junior status. This is partly due to the AACSB recommendation that students who are business majors do not matriculate into the business schools until they have completed most of their general education requirements. This practice gives the business schools little time to know their students. Instead, they must rely on the general education core (the first 2 years of the undergraduate curriculum) to begin the process of integrating employability skills.

It is possible that institutions A and C, and to a lesser extent institution B, were more successful at assessing their students' skills level and communicating the information to the students. Also, the three private institutions may have been more successful at providing information on the students' outcomes to the business schools at

the commencement of their junior year.

The study revealed some notable findings regarding the strategies students and faculty perceived were used to integrate employability skills across the curriculum. First, the overall mean scores by the students and faculty on five of the strategies were not very high. The lecture method was the exception, suggesting that the faculty relied heavily on this method to deliver the pedagogy. Second, the students and the faculty seemed to agree that business simulations with computers were rarely applied across the curriculum.

What are the implications of these findings? If the institutions are serious about adopting the AACSB recommendation for more integrative teaching strategies, then they need to adopt more integrative effective strategies that will make the classroom experience more reflective of the work environment. It is possible that the greater time and resources needed to implement alternative strategies may prompt some faculty to resort to the less time-consuming lecture method.

Also, it is possible that the high currency that is placed on research as opposed to effective teaching has served as a disincentive for the faculty to invest more effort in building their repertoire of teaching strategies. These implications would explain why only modest attempts were made to apply group work, case studies, and individual presentations across the curriculum. It is notable that, although the AACSB has adopted new “mission linked” accreditation standards and procedures that allow institutions to place relatively more emphasis on teaching and less on research (Yunker, 1998), there are no conclusive studies that show significant improvement in teaching within business schools.

It is surprising that students and faculty mean scores for internship experiences were not very high when one considers the premium that employers place on those entry-level professionals who have some practical experience. The findings revealed that students and faculty in the two public universities differed significantly on the support for internships. These findings suggest that the availability of internship experiences at these institutions may not be greater than at the smaller institutions. It is unclear the reasons for these findings. However, the fact that student internship programs are generally administered by a central placement office makes it difficult for the professor to assess the effectiveness of this strategy unless they are involved in evaluating those students who are assigned to the organizations providing the internships.

If the institutions in this study are providing internship experiences to their business students, they need to inform their faculty and students because both groups can benefit from such programs. For instance, if the business schools encourage their faculty to monitor the students' internship, the professors will be able to remain current with some of the rapid changes in the business environment. On the other hand, the students will be able to make the connection between the theory and practice.

Recommendations

Based on the findings of the study and on the conclusions presented, the following recommendations are made for research and practice.

Recommendations for Future Research

1. This study should be replicated with a focus on students who have already

completed their undergraduate degree in business and are employed in an entry-level professional position. This would enable educators and practitioners to determine if the curriculum is adequate to prepare students for entry-level positions, or if they need to have extensive interaction in the workplace beyond that provided by experiential strategies such as internships.

2. Further research needs to be done to ascertain why the public universities, particularly institution E, showed more differences between their students and faculty as opposed to the private institutions. This would help to elucidate the perception that public universities, which tend to be large, are different in their approach to delivering the curriculum.

3. Further research needs to be done to ascertain why institutions A and C seemed to show comparatively little significant differences between the students and faculty. This would enable educators to identify any specific approaches these schools may have in place that have allowed them to show little significant differences between their students and faculty.

4. Further research should be done to determine the extent to which business simulations with computers are currently applied in the institutions. Also, such a study should seek to determine the attitudes of the faculty and administrators in these business schools toward the current level of application of this teaching method across the curriculum. Hopefully, the findings from such a study will enable the institutions to identify specific factors that may have contributed to the perception that the strategy is rarely applied in the business schools.

5. Research should be done on students who have work experiences prior to and while in college and those who have never worked. This may provide useful information that would assist the institutions in this study to determine if those two groups of students perceive the importance, integration, and possession of employability skills differently.

6. Further research needs to be done to find out if faculty with tenure integrate employability skills differently from those who are not tenured. Such a study would enable the schools to better identify those faculty that need to be given in-service training that would expose them to a variety of teaching strategies that can make the classroom experiences more reflective of the workplace.

7. Research needs to be done to determine the perceptions of students and faculty within other disciplines across the undergraduate curriculum. This would enable educators in the five institutions to determine if the findings in this study are unique to their business schools. It would also provide the institutions with some clear indication of how responsive the general education curriculum is to the demands of the external environment.

8. Institutions A, C, D, and E offer various programs at the graduate level in management education. It would be of value to these institutions if a similar study were done that focuses on their graduate business curriculum. This is particularly important since those students who complete graduate management degrees are more likely to assume managerial positions which would require them to display competency in employability skills.

Recommendations for Practice

1. The institutions in this study need to work closely with employers to develop assessment measurements that can better identify the employability skills their students possess before they complete their senior year.

2. The business schools within the five institutions need to work closely with the undergraduate college to ensure that detailed assessment is made of students' level of possession of employability skills in addition to academic competency before they are matriculated in the business schools.

3. The public universities in this study need to heighten their students' awareness of the value and efficacy of group work. If the institutions were successfully pursuing this, the students would be more appreciative of the efforts made to increase the use of this teaching strategy.

4. The business schools need to provide for and support in-service and other staff-development activities that will promote effective teaching.

5. The business schools need to ensure that those teachers who prove themselves to be effective at teaching are rewarded equally as those who excel in research. Although the five institutions emphasize teaching as oppose to research, the general perception in higher education is that research has more value. A solution would be to reward the best of both efforts equally.

6. The five institutions need to make greater efforts to integrate computer technology, particularly business simulations with computers across the curriculum. This is necessary due to the growing reliance on computer technology in business and the lack

of interaction of this teaching strategy across the business curriculum.

7. The five institutions need to make their students and faculty aware of their internship programs and the type of support the programs have from the business community. The schools should ensure that their faculty are actively involved in the students' internship experiences so that they the faculty can remain current with the ever changing business environment.

This study identified some strengths and weaknesses in the business curriculum at the five institutions that were the focus of the research. The findings should not be viewed as indelible features of the institutions. Instead, it is important that each of the schools embrace its curriculum as an evolving process that has to be constantly revisited in order to modify, remove, and/or make additions that will enhance the education they provide their students.

Appendix A

Student's Copy of Instrument

SURVEY OF EMPLOYABILITY SKILLS

STUDENT COPY

The purpose of this survey is to determine to what degree employability skills are integrated throughout the undergraduate business curriculum.

SECTION 1

Importance of skills. To what extent do you believe the following skills are so important for success in the workplace that they should be addressed throughout the business curriculum? First rate skills in basic core classes; then, rate skills in major specialization.

Rate on a scale from 1 (not important) to 5 (very Important)

I consider the following skills <u>important</u> across the curriculum:	Business Core	Major
1) Numeracy skills : math and statistical ability.	1 2 3 4 5	1 2 3 4 5
2) Written communication skills : ability to express effectively one's thoughts, information and messages in writing.	1 2 3 4 5	1 2 3 4 5
3) Oral communication skills :ability to clearly express one's thoughts, information and messages in speaking.	1 2 3 4 5	1 2 3 4 5
4) Interpersonal skills : ability to interact effectively with others with sensitivity and skill.	1 2 3 4 5	1 2 3 4 5
5) Ethical and Moral values : to exhibit responsible behavior and attitudes in such areas as honesty, integrity and trust.	1 2 3 4 5	1 2 3 4 5
6) Thinking skills : ability to make decisions, consider risks and generate alternative and innovative ideas.	1 2 3 4 5	1 2 3 4 5
7) Lifelong Learning skills : commitment to continue learning throughout one's entire professional life.	1 2 3 4 5	1 2 3 4 5
8) Work Ethic : ability to exhibit responsible work habits in such areas as punctuality, diligence, reliability and initiative.	1 2 3 4 5	1 2 3 4 5
9) Leadership skills : ability to influence and inspire others in ways that enhance their productivity and satisfaction.	1 2 3 4 5	1 2 3 4 5
10) Problem-solving skills :ability to identify and critically assess problem and devise a plan of action for its solution.	1 2 3 4 5	1 2 3 4 5
11) Teamwork skills : ability to work collaboratively with others from diverse background.	1 2 3 4 5	1 2 3 4 5
12) Computer technology skills : ability to generate spreadsheets, graphs, flowcharts and tables useful in business/industry.	1 2 3 4 5	1 2 3 4 5

SECTION 11 - Extent of integration

Circle the number that best describe the degree to which you believe these skills are integrated throughout your business curriculum.

Rate on a scale from 1 (not integrated) to 5 (fully integrated)

	Business Core					Major				
1) Numeracy skills	1	2	3	4	5	1	2	3	4	5
2) Written communication skills	1	2	3	4	5	1	2	3	4	5
3) Oral communication skills	1	2	3	4	5	1	2	3	4	5
4) Interpersonal skills	1	2	3	4	5	1	2	3	4	5
5) Ethical and Moral values	1	2	3	4	5	1	2	3	4	5
6) Thinking skills	1	2	3	4	5	1	2	3	4	5
7) Lifelong Learning skills	1	2	3	4	5	1	2	3	4	5
8) Work Ethic	1	2	3	4	5	1	2	3	4	5
9) Leadership skills	1	2	3	4	5	1	2	3	4	5
10) Problem-solving skills	1	2	3	4	5	1	2	3	4	5
11) Teamwork skills	1	2	3	4	5	1	2	3	4	5
12) Computer technology skills	1	2	3	4	5	1	2	3	4	5

SECTION 111 - Possession of skills

Please circle the number that best describe the degree to which you perceive you possess the following skills.

Rate on a scale from 1 (does not possess) to 5 (fully possess)

	Business Core					Major				
1) Numeracy skills	1	2	3	4	5	1	2	3	4	5
2) Written communication skills	1	2	3	4	5	1	2	3	4	5
3) Oral communication skills	1	2	3	4	5	1	2	3	4	5
4) Interpersonal skills	1	2	3	4	5	1	2	3	4	5
5) Ethical and Moral values	1	2	3	4	5	1	2	3	4	5
6) Thinking skills	1	2	3	4	5	1	2	3	4	5
7) Learning to learn skills	1	2	3	4	5	1	2	3	4	5
8) Work Ethic	1	2	3	4	5	1	2	3	4	5
9) Leadership skills	1	2	3	4	5	1	2	3	4	5
10) Problem-solving skills	1	2	3	4	5	1	2	3	4	5
11) Teamwork skills	1	2	3	4	5	1	2	3	4	5
12) Computer technology skills	1	2	3	4	5	1	2	3	4	5

SECTION IV - Methods used to integrate skills

Please circle the number that best indicate the degree to which you believe the following teaching strategies have been applied by your professors across all your business courses.

Rate on a scale from 1 (never applied) to 5 (fully applied)

<u>Teaching strategies</u>	Business Core	Major
1) Students are encouraged to work in groups	1 2 3 4 5	1 2 3 4 5
2) The traditional lecture strategy	1 2 3 4 5	1 2 3 4 5
3) Individual presentations by students are required	1 2 3 4 5	1 2 3 4 5
4) Case-base instruction (case studies)	1 2 3 4 5	1 2 3 4 5
5) Business simulations with computers	1 2 3 4 5	1 2 3 4 5
6) Internship experiences (is this articulated in the curriculum and supported by the school?)	1 2 3 4 5	1 2 3 4 5

DEMOGRAPHIC CHARACTERISTICS

- Identify your major by marking an X: ____ accounting ____ economics ____ management ____ marketing ____ finance
____ other (please state) _____.
- Have you had any professional work experience prior to enrolling in your business program? yes ____ no ____ . if yes,
how many months? _____ years? _____.
- Are you a full-time or part-time student? Full-time ____ part-time ____
- What is your current employment status?
Employed full-time ____ Employed part-time ____ Not employed ____

ANY COMMENTS?

Appendix B

Faculty's Copy of Instrument

SURVEY OF EMPLOYABILITY SKILLS

BUSINESS SCHOOL FACULTY

The purpose of this survey is to determine to what degree employability skills are integrated throughout the undergraduate business curriculum.

SECTION I

Importance of skills. To what extent do you believe the following skills are so important for success in the workplace that they should be addressed throughout the business curriculum? First rate skills in basic core classes; then, rate skills in major specialization.

Rate on a scale from 1 (not important) to 5 (very Important)

I consider the following skills <u>important</u> across the curriculum:	Business Core	Major
1) Numeracy skills : math and statistical ability.	1 2 3 4 5	1 2 3 4 5
2) Written communication skills : ability to express effectively one's thoughts, information and messages in writing.	1 2 3 4 5	1 2 3 4 5
3) Oral communication skills :ability to clearly express one's thoughts, information and messages in speaking.	1 2 3 4 5	1 2 3 4 5
4) Interpersonal skills : ability to interact effectively with others with sensitivity and skill.	1 2 3 4 5	1 2 3 4 5
5) Ethical and Moral values : to exhibit responsible behavior and attitudes in such areas as honesty, integrity and trust.	1 2 3 4 5	1 2 3 4 5
6) Thinking skills : ability to make decisions, consider risks and generate alternative and innovative ideas.	1 2 3 4 5	1 2 3 4 5
7) Lifelong Learning skills : commitment to continue learning throughout one's entire professional life.	1 2 3 4 5	1 2 3 4 5
8) Work Ethic : ability to exhibit responsible work habits in such areas as punctuality, diligence, reliability and initiative.	1 2 3 4 5	1 2 3 4 5
9) Leadership skills : ability to influence and inspire others in ways that enhance their productivity and satisfaction.	1 2 3 4 5	1 2 3 4 5
10) Problem-solving skills :ability to identify and critically assess problem and devise a plan of action for its solution.	1 2 3 4 5	1 2 3 4 5
11) Teamwork skills : ability to work collaboratively with others from diverse background.	1 2 3 4 5	1 2 3 4 5
12) Computer technology skills : ability to generate spreadsheets, graphs, flowcharts and tables useful in business/industry.	1 2 3 4 5	1 2 3 4 5

SECTION 11 - Extent of integration

Circle the number that best describe the degree to which you integrate these skills across one or more of the courses you teach.

Rate on a scale from 1 (not integrated) to 5 (fully integrated)

	Business Core	Major
1) Numeracy skills	1 2 3 4 5	1 2 3 4 5
2) Written communication skills	1 2 3 4 5	1 2 3 4 5
3) Oral communication skills	1 2 3 4 5	1 2 3 4 5
4) Interpersonal skills	1 2 3 4 5	1 2 3 4 5
5) Ethical and Moral values	1 2 3 4 5	1 2 3 4 5
6) Thinking skills	1 2 3 4 5	1 2 3 4 5
7) Lifelong Learning skills	1 2 3 4 5	1 2 3 4 5
8) Work Ethic	1 2 3 4 5	1 2 3 4 5
9) Leadership skills	1 2 3 4 5	1 2 3 4 5
10) Problem-solving skills	1 2 3 4 5	1 2 3 4 5
11) Teamwork skills	1 2 3 4 5	1 2 3 4 5
12) Computer technology skills	1 2 3 4 5	1 2 3 4 5

SECTION 111 - Possession of skills

Circle the number that best describe the extent to which you believe your graduates as a whole possess the following skills.

Rate on a scale from 1 (does not possess) to 5 (fully possess)

	Business Core	Major
1) Numeracy skills	1 2 3 4 5	1 2 3 4 5
2) Written communication skills	1 2 3 4 5	1 2 3 4 5
3) Oral communication skills	1 2 3 4 5	1 2 3 4 5
4) Interpersonal skills	1 2 3 4 5	1 2 3 4 5
5) Ethical and Moral values	1 2 3 4 5	1 2 3 4 5
6) Thinking skills	1 2 3 4 5	1 2 3 4 5
7) Learning to learn skills	1 2 3 4 5	1 2 3 4 5
8) Work Ethic	1 2 3 4 5	1 2 3 4 5
9) Leadership skills	1 2 3 4 5	1 2 3 4 5
10) Problem-solving skills	1 2 3 4 5	1 2 3 4 5
11) Teamwork skills	1 2 3 4 5	1 2 3 4 5
12) Computer technology skills	1 2 3 4 5	1 2 3 4 5

SECTION IV - Methods used to integrate skills

Please circle the number that best indicate the degree to which you apply the following teaching strategies across all the courses you teach.

Rate on a scale from 1 (never applied) to 5 (fully applied)

<u>Teaching strategies</u>	Business Core	Major
1) Students are encouraged to work in groups	1 2 3 4 5	1 2 3 4 5
2) The traditional lecture strategy	1 2 3 4 5	1 2 3 4 5
3) Individual presentations by students are required	1 2 3 4 5	1 2 3 4 5
4) Case-base instruction (case studies)	1 2 3 4 5	1 2 3 4 5
5) Business simulations with computers	1 2 3 4 5	1 2 3 4 5
6) Internship experiences (is this articulated in the curriculum and supported by the school?)	1 2 3 4 5	1 2 3 4 5

ANY COMMENTS?

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