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Proceedings of the Academy of Entrepreneurship

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Proceedings of the Academy of Entrepreneurship

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THE EMPLOYEE'S ROLE IN THE QUALITY EFFORTS OF SMALL FIRMS

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Linda Shonesy, Athens State University

ABSTRACT

Several manufacturing firms were surveyed to find answers to questions about employee involvement in the quality efforts of firms of all sizes. Attempts at finding significant differences between small and large firms were unsuccessful. Respondents from small firms were very similar to larger firms in a variety of quality activities performed by their employees.

INTRODUCTION

The economic environment that firms are currently operating in is characterized by rapid changes brought on by globalization and market deregulation. To compete firms must improve performance by decreasing costs and increasing quality. However, attaining high quality products has been a problem for U.S. firms in the past. Japanese firms were able to take market share because of their higher quality in such manufactured products as automobiles, television sets, and other electronics items. U.S. manufacturers tended to ignore the potential of quality management until the 1970's, when the realization that quality was important to consumers could no longer be ignored.

To attain a more consistently high quality product, firms in the past twenty years have made a concerted effort to implement continuous improvement processes. It began in the manufacturing sector and has spread to other types of organizations, such as health care, service firms, and government agencies (Brown, 1991; Cohen & Brand, 1993). These continuous process improvement concepts include planning, training, management commitment, statistical process control, empowerment, and teamwork (Deming, 1986; Juran, 1989; Crosby, 1984; Taguchi & Clausing, 1990; and Camp, 1989). However, for these concepts to work, one must acknowledge that employees are the foundation for implementing the various continuous process improvements (Deming, 1986; Juran, 1989; Crosby, 1984).

In order to survive, all firms must develop their own set of efficiency niches (Das & Husain, 1993). It is generally agreed that smaller firms have a difficult time competing directly with larger firms because larger firms can achieve economies of scale. Since quality efforts could add to either variable or fixed costs, smaller firms may have to limit the amount of value that can be added by increasing quality. On the other hand, in order to compete with their larger counterparts, small firms may be forced to attain the same product quality levels. That may require bringing all of their resources to bear on maximizing quality efforts. That especially includes using their employees to help achieve higher quality products. What role do small firm employees play in the quality process? Do small firms actually make adequate use of their employees in the current push for continuous

improvement? Are larger firms better able to leverage their employees in achieving quality products and services?

The purpose of this research was to focus on the role of the employee in the continuous improvement process, and how that role may vary with firm size. The variables were divided into nine employee-focused questions. These were compared in large, medium, and small firms to seek a solution the question: Is there a difference in the role of the employee in the continuous improvement process depending upon firm size?

LITERATURE REVIEW

According to Black and Porter (1996), much of the quality management literature is based upon case studies and anecdotal evidence by using the reflections of the various experts in the discipline, including Deming, Juran, Crosby, Feigenbaum, and Ishikawa. Much of the literature focuses on describing common management practices with few attempts to identify those that will impact the continuous improvement processes based on firm size.

Dean and Bowen (1994) decided that the continuous improvement process is a relatively fuzzy concept. Ahire and Golhar (1996) stated that the existing continuous process improvement literature does not provide detailed comparisons between large and small firms. Implementing continuous quality improvement appears to be difficult, with certain specific problems that are encountered by small firms. Sironopolis (1994) found that small firms did encourage innovation. Newman (1988) found that a lack of capital could be a problem for small businesses. Haksever (1996) discovered that two of the most serious problems in trying to implement continuous quality improvement in a small business was a lack of management experience and a lack of both financial and human resources. Ahire and Golhar (1996) believe that small and large firms differ in their experiences with continuous quality improvement.

For many years, large firms seem to have dominated the discussion concerning quality management and continuous improvement processes. Small and medium sized firms have all but been left out. As small firms make up over 90% of the businesses in America, it is important to look at their contributions to quality (U.S. Bureau of the Census, 1991).

According to Ghobadian and Gallear (1996), small and medium-sized businesses are the backbone of the economies of many countries. Many small and medium-sized companies are suppliers to larger corporations, and have been severely pressured to improve the quality of their products and services. If they did not, they would risk being dropped as a supplier. Thus there is a dependent relationship that exists between large and small organizations, with increasing pressures on firms of all sizes to improve quality. Ahire and Golhar (1996) indicated that operational differences exist between small and large businesses, and that no attempt has been made to determine if these firms implement employee issues differently. Struebing and Klaus (1997) stated that using quality control tools is very important for small business, since these firms may be competing with large companies and need a method to differentiate their products.

Deming (1982) suggested that management must create a system for continuous quality improvement in order to improve product or service quality. He insisted that management had an obligation to keep the company alive for the future, rather than focusing on annual goals. Juran (1991) and Ross (1993) both suggested that management should be held responsible for poor quality.

On the other hand, employees were to be empowered to make the decisions necessary to improve quality within the system designed by management. Therefore, training and education would be essential to provide employees with the ability to make these operational decisions (Spencer, 1994). More and more organizations have discovered that training programs are the foundation needed to build a true quality system. Employees can make important contributions leading to continuous improvement process outcomes, especially when they have the necessary power and preparation.

Once employees are trained and given the authority to make quality decisions, they achieve a new control over their jobs called empowerment. Empowerment involves the workers in the sense that they are at the center of things and are contributing to the organization's success (Bennis, 1991). An empowered work force is said to be committed and is most evident when employees feel significant and competent, feel part of a community, and find work to be exciting (Bennis, 1990). Whatever shape the future ultimately takes, the organizations that will succeed financially may be those that seriously believe their sustainable competitive advantage is based on the training, development and growth of their workers (Andrews, 1992).

Many corporate managers have traditionally viewed workers as adversaries and have tended to lead by fear and intimidation (Bennis, 1987). This view is changing: a survey done by *Industrial Week* and the Wyatt Company indicated that management was beginning to embrace the concept of worker involvement (McKenna, 1991).

THE STUDY

METHODOLOGY: Parkin and Parkin (1996) have suggested that a small and medium-size business (SME) will have fewer than 500 employees. McEvoy (1984) used 250 employees to denote small versus large businesses. For the purposes of this study, small firms were designated as having 50 to 249 employees, firms with 250 to 499 employees were designated as medium-sized, and large firms as those with 500 employees or more.

A researcher-developed questionnaire was used to examine the differences in employee roles between these small, medium and large firms. A random sample of 2,000 members was drawn from a section of the American Society for Quality (ASQ), if they met the criteria of members that represented manufacturing facilities (SIC codes between 20-39), classified themselves as mid-level managers at the plant-level of organization, and provided a business mailing address. Data from each variable was scored using a seven-point Likert scale ranging from one (1) (strongly disagree) to seven (7) (strongly agree).

Using guidelines from Franz and Robey (1986), six ASQ managers reviewed the original proposed instrument to determine if the objectives were met of maximizing readability, clarity, understandability, comprehensiveness, and elimination of ambiguities of the product quality measurements. Based upon the recommendations of these reviewers, the questionnaire was modified. A second test of content validity was conducted with the same group and using a redesigned questionnaire. Minor sentence changes were suggested and their recommendations were incorporated into the final questionnaire. Finally the questionnaire was pilot-tested with members of a chapter of ASQ.

HYPOTHESES: The survey questions and their related hypothesis statements were as follows:

- 1.The product quality policies of the firm emphasize the need for employee involvement.
H₀: There is no difference between small, medium, and large firms in their product quality policies that emphasize the need for employee involvement.
- 2.Employees of the firm are involved in the product quality planning process.
H₀: There is no difference between employee's involvement in small, medium, and large firms in the product quality planning process.
- 3.There is an effective system within the organization for the employees to communicate product quality problems to management.
H₀: There is no difference between small, medium, and large firms in their system for communicating product quality problems to management.
- 4.There is a structured program for training all levels of employees in the use of quality improvement tools, such as statistical process control and equipment process capabilities.
H₀: There is no difference between small, medium, and large firms in their programs for training all levels of employees in the use of quality improvement tools.
- 5.Quality improvement teams are used to help increase product quality.
H₀: Quality improvement teams are used to help increase product quality equally in small, medium, and large firms.
- 6.Employees inspect their work for defects.
H₀: There is no difference between small, medium, and large firms' use of employees to inspect their own work for defects.
- 7.Employees have the authority to halt the production process.
H₀: There is no difference between small, medium, and large firms in the authority employees have for halting the production process.
- 8.Management and workers openly discuss production problems.
H₀: There is no difference between small, medium, and large firms' management and workers openly discussing production problems.
- 9.Employees are trained to do more than one job.
H₀: There is no difference between small, medium, and large firms in the training of employees to do more than one job.

RESULTS

Dillman's (1978) four-step method for mailed questionnaires was used, which resulted in a response rate of over 33%. Armstrong and Overton (1977) suggested the "last respondent" method of estimating the non-response bias in mail surveys. A MANOVA test was conducted in order to generalize the findings to the non-respondent sample population. This comparison was tested at the $p < 0.05$ level of significance. The outcome of the MANOVA test determined that there was no significant difference between the respondents in the first and third waves, indicating that the respondent's questionnaires were representative of the total sample. If there was no significant differences between wave one and wave three, the results of the total sample were considered representative of the general population.

Item	Small	Medium	Large	P value
Rating of product quality (reverse scored)	2.19*	1.99	2.04	.0113
Average number of employees	150	328	1190	
Levels of mgt. in the organization	2.8	3.0	3.9**	.0000
Years of formal quality programs	6.3	7.6	11.3**	.0000
% ROI growth	8	8.4	13.3**	.0079
% Mkt. share growth	8.1**	5.7	4.7	.0008
Unionized (yes=1)?	.22	.25	.42**	.0001

* difference significant at .05
** difference significant at .01

Of the firms responding, 145 were classified as large (more than 500 employees) and 224 were classified as small (less than 250 but with 50 or more employees). Table 1 summarizes the demographic information obtained from all respondents. Large firms had used quality programs longer, had more levels of management, tended to be more unionized, and had a much higher ROI. Respondents from small firms reportedly were critical of their quality, and rated their products lower than the larger firms.

Question	Small	Medium	Large	P value
1 Policies for employee involvement	5.28	5.40	5.53	.2960
2 Employee involvement in planning	3.72	3.66	3.42	.2238x
3 Communicating	4.93	5.03	4.97	.7646x

QC problems				
4 Structured training programs	3.30	3.19	3.58	.1055
5 Using teams	4.10	4.38	4.79**	.0023
6 Employee inspects work	5.30*	5.32	4.91	.0124
7 Employees have authority	5.17	5.07	4.83	.2110x
8 QC problems discussed openly	4.81	5.00	4.74	.1778x
9 Quality training and cross-training	3.99	3.91	4.20	.2824
	5.28	5.25	4.99	.1039
* difference significant at .05				
** difference significant at .01				

Using ANOVA, differences in means were found for few of the quality questions. Table 2 shows employee involvement by firm size and by question. Larger firms were more apt to use teams in their quality efforts than small firms ($p = .0023$). Perhaps teamwork in small firms falls into a different category. For example, Bacon et al (1996) found teamwork in smaller firms to be improved horizontal interaction among the employees, and not the creation of formal work groups as is found in larger firms.

Small firms, on the other hand, gave their employees more discretion than the large firms did in dealing with quality problems and in inspecting their own work ($p = .0124$). While the differences were not significant, smaller firms did rate some of their quality efforts higher than large firms. These items included: involving employees in quality planning, giving employees authority to halt production, in quality discussions held between employees and management, and in the cross-training of employees to do a variety of jobs. The only problem area indicated by a low rating was in the lack of a structured training program in the small firms ($p = .1055$).

CONCLUSIONS

This study shows that perhaps there is no need to worry about quality in small firms. Small firms appeared to be holding their own in involving employees in their quality efforts. They had policies advocating employee involvement, and in actual practice their employees reportedly were more involved in the planning process than the employees of larger firms. There was a system in

place in small firms for the upward communication of quality problems, and their employees and managers discussed problems more than large firms did. While quality training was rated lower in small firms, they did have more cross training. Employees from small firms significantly were more apt to inspect their own work, and had more authority to stop production when problems arose.

These results show that small firms appear able to compete with large firms in achieving quality. The only concern with the responses to the questionnaire was in the lower rating given by the small firm respondents to their product quality. If accurate, that low rating may be saying that although the efforts by employees are there, the quality of the products is not on a par with that of larger firms. On the other hand, since the employees of small firms do inspect their own work more frequently, they may have more first-hand product knowledge and may thus be in a better position to accurately evaluate product quality.

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ENTREPRENEURSHIP PROGRAMS VERSUS TRADITIONAL BUSINESS PROGRAMS: UNDERSTANDING DIFFERENT NEEDS

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ABSTRACT

As more colleges and universities offer entrepreneurship courses and degree programs, more effort should be placed on identifying their distinct needs. In the current study, practicing entrepreneurs ranked 18 attributes and skills for entrepreneurship majors and traditional business majors. Almost all of the attributes are considered moderately important for both groups of students. However, important differences exist. Results indicate that critical and strategic thinking skills are significantly more important for entrepreneurship majors than traditional business majors. Several other differences are present.

INTRODUCTION

Approximately, one out of every 25 adults is currently trying to start a new business (Reynolds, 1994), and small businesses account for 97% of all businesses in the U.S. and over half of the workforce (Keats and Bracker, 1988). Therefore educational needs for entrepreneurs are more important today than ever. Bates (1994) found owner education level to be one of the dominant traits that contribute to firm viability. An emphasis toward education is apparent with approximately 400 business schools offering courses in entrepreneurship and/or a concentration in the area (Lord and Westfall, 1996). *Success* magazine continues to publish the top 25 entrepreneurship education programs each year. The top five for 1998 include the University of Southern California, DePaul University, the University of Pennsylvania, UCLA, and the University of Arizona.

While entrepreneurship, as an academic discipline, has gained the respect it previously lacked, it is unique from other business degrees. The purpose of this paper is to identify important differences in specific attributes and skills that are taught to traditional business majors versus entrepreneurship majors.

LITERATURE REVIEW

Prior to the current generation of entrepreneurs, education was not as important as it is today due in part to information technology and global markets. However, several scholars have called for a different approach to entrepreneurship education than traditional business curriculum. Pietrucha (1996) asserts that a corporate business education is not entirely appropriate for an entrepreneurial education. Traditional business education stresses conservatism, while entrepreneurship should emphasize innovation and creativity. Kuehn (1995) contends that, because of changes in the

marketplace and increasing student diversity, traditional approaches to preparing students for the workplace are inappropriate for entrepreneurship degrees and perhaps other business areas as well. Relf (1995) posits that if entrepreneurship curriculum is modeled after traditional business curriculum, it will lose its relevance.

Active involvement in the business community is one important factor for success in entrepreneurship education. Johannesson (1995) found that small business consulting projects contribute significantly to the students understanding of the environment, information technology, and organizational control in small businesses, small business culture and ethical values, the small business management decision-making process, and entrepreneurship in general. Students in Free Enterprise (SIFE) is a good example of learning beyond the classroom. SIFE is a partnership between higher education and business whose primary objective is to promote an improved understanding of economic issues among college and university teams through experiential, entrepreneurial activities (Anderson and Payne, 1997).

Some scholars have begun the process of identifying specific differences between entrepreneurship and traditional business education. Ball and Shank (1995) conducted a study that identified the business functions most important to small business success. They include finance and accounting, management, and marketing. Gresham and Franklin (1996) explored several conceptual skills to determine their importance for graduates working for small versus large organizations. These skills fell into broad categories that include problem-solving ability and communication, diversity and flexibility, technology, legal and political issues, and ethics. The findings indicate differences do exist. Alumni working for large employers felt diversity, technology, and legal and political issues were significantly more important than did alumni working for small employers, who felt accounting, marketing, and finance were most important. Gresham and Franklin (1996) conclude that a traditional business core that emphasizes corporate education is not completely adequate for students who intend to start their own businesses.

THE CURRENT STUDY

The current study continues the process of distinguishing between entrepreneurship and traditional business education by focusing on 18 student attributes and skills. These attributes and skills are not specific business functions such as marketing, management, and finance. They can be taught in any degree program and in any course. While all are important, the purpose of this study is to determine which ones are most essential for entrepreneurship majors compared to traditional business majors. The attributes and skills include:

- Understanding of historic and current business concepts.
- Skills in critical and strategic thinking.
- Competent writing skills.
- Competent oral presentation skills.
- Creativity in problem solving.
- Awareness of changing demographics.
- Awareness of cultural diversity.
- Sensitivity to environmental issues.
- Awareness of evolving technologies.

Awareness of global issues.
 Vision of social responsibility.
 Appreciation of business morals, ethics, and values.
 Dealing with personal and business responsibilities.
 Desire to continue to learn.
 Spreadsheet/database skills.
 Quantitative skills.
 Working as a team member.
 Interpreting financial statements.

METHODOLOGY

The Chamber of Commerce of a large southwestern city provided over 2,500 names and addresses of entrepreneurs located in and around the city. Three hundred entrepreneurs were randomly selected from this list to participate in the study. Sixty-eight usable surveys were obtained (23%). Demographic information of the respondents is described in Table 1.

Table 1: Demographic Information of Participant Entrepreneurs

Number of Participants:	68
Mean Business Age:	24
Mean Number of Employees:	304
Number of Franchises:	7
Type of Business –	
Manufacturing:	3
Retail:	27
Service:	38
Current Yearly Sales:	\$31,018,529
Legal Form of Business -	
Sole Proprietorship:	8
Partnership:	14
Corporation:	46
Entrepreneur Education Level -	
Highschool:	5
Bachelors Degree	41
Masters Degree	18
Ph.D.	2
Unknown:	2
Gender of Entrepreneur:	
Male:	46
Female:	22

The survey asked entrepreneurs to rate the importance of each attribute and skill on a 7-point Likert scale (1 = not important at all; 4 = moderately important; 7 = extremely important) for two groups of students, entrepreneurship majors and traditional business majors. The opinions of entrepreneurs were used because they are knowledgeable about each group of students. Since they are entrepreneurs themselves, they understand what attributes and skills are needed to be a successful business owner. They also have employees, and therefore understand what attributes and skills are necessary for traditional business majors who will work for someone else.

Mean scores were used to rank the attributes and skills from most important to least important for each group of students. The data was also analyzed using t-tests to determine if significant differences exist between entrepreneurship majors and traditional business majors for each attribute and skill.

RESULTS

Table 2 reports the mean score rankings of all attributes and skills for entrepreneurship majors. All are considered at least moderately important.

Table 2: Mean Score Ranking for Entrepreneurship Majors

<u>Attribute/Skill</u>	<u>Mean</u>	<u>SD</u>
Skills in critical and strategic thinking	6.759	.471
Creativity in problem solving	6.621	.813
Dealing with personal and business responsibilities	6.586	.726
Appreciation of business morals, ethics, and values	6.483	.863
Top one-third		
Desire to continue learning	6.414	.726
Competent oral presentation skills	6.310	.922
Interpreting financial statements	6.241	1.144
Competent writing skills	6.207	.969
Awareness of evolving technologies	5.966	.898
Understanding historic and current business concepts	5.690	1.273
Middle one-third		
Awareness of changing demographics	5.483	1.173
Quantitative skills	5.393	1.056
Spreadsheet/database skills	5.345	1.358
Vision of social responsibility	5.121	1.285
Working as a team member	4.862	1.801
Sensitivity to environmental issues	4.690	1.547
Bottom one-third		
Awareness of cultural diversity	4.655	1.702
Awareness of global issues	4.310	1.327

Table 3 reports the mean score rankings of all attributes and skills for traditional business majors. All are considered at least moderately important, except for awareness of global issues and skills in critical and strategic thinking, which fell just below the 4.0 (moderately important) ranking.

Table 3: Mean Score Ranking for Traditional Business Majors

<u>Attribute/Skill</u>	<u>Mean</u>	<u>SD</u>
Working as a team member	6.414	.937
Competent writing skills	6.241	.904
Appreciation of business morals, ethics, and values	6.207	.969
Desire to continue learning	5.862	.981
Top one-third		
Dealing with personal and business responsibilities	5.828	1.157
Competent oral presentation skills	5.724	1.348
Creativity in problem solving	5.293	1.124
Spreadsheet/database skills	5.241	1.261
Awareness of evolving technologies	5.034	1.256
Quantitative Skills	4.857	1.034
Middle one-third		
Interpreting financial statements	4.828	1.546
Understanding historic and current business concepts	4.759	1.233
Vision of social responsibility	4.345	1.384
Awareness of changing demographics	4.241	1.204
Awareness of cultural diversity	4.224	1.556
Sensitivity to environmental issues	4.069	1.543
Bottom one-third		
Skills in critical and strategic thinking	3.879	1.077
Awareness of global issues	3.724	1.348

Table 4 summarizes the significant differences found between the mean scores of entrepreneurship majors and traditional business majors using unpaired t-tests. Only those attributes and skills with a p-value of <.0001 are reported.

**Table 4: Significant Mean Differences Between Entrepreneurship
and Traditional Business Majors**

<u>Attribute/Skill</u>	<u>EM:Mean</u>	<u>TBM:Mean</u>	<u>p-value</u>
<i>More important for Entrepreneurship Majors</i>			
Skills in critical and strategic thinking	6.759	3.879	<.0001
Creativity in problem solving	6.621	5.293	<.0001
Dealing with personal and business responsibilities	6.586	5.828	<.0001
Interpreting financial statements	6.241	4.828	<.0001
Awareness of evolving technologies	5.966	5.034	<.0001
Understanding historic and current business concepts	5.690	4.759	<.0001
Awareness of changing demographics	5.483	4.241	<.0001
<i>More important for Traditional Business Majors</i>			
Working as a team member	4.862	6.414	<.0001

CONCLUSIONS

The results of this study clearly indicate that all 18 attributes and skills are important for all business students regardless of major. However, it is also apparent that certain ones should be emphasized more depending on the students' major. For example, skills in critical and strategic thinking ranked number one for entrepreneurship majors, while it ranked number 17 for traditional business majors. And working as a team member ranked number one for traditional business majors, while it ranked number 15 for entrepreneurship majors. Many other differences exist, which can be seen in the tables two, three, and four.

Entrepreneurship courses and degree programs should reflect the unique needs of entrepreneurship majors. They cannot follow or be centered on traditional corporate education curriculum. All of the attributes and skills discussed in this paper can be taught in almost any course. They are not business function specific. For example, you can teach critical and strategic thinking skills in marketing, management, finance, accounting, and human resource management courses along with many other courses. The business functions are important for entrepreneurship majors, because they must understand all of them in order to be successful. But while they are learning these business functions, they should also be improving those skills and attributes found to be most important such as creativity in problem solving, dealing with personal and business responsibilities, and gaining an appreciation of business morals, ethics and values along with several others.

It is also interesting to note that the mean score of all attributes and skills combined for entrepreneurship majors is 5.730, while it is only 5.043 for traditional business majors. This indicates that entrepreneurship majors need more knowledge and skills than a traditional business major. They must know more because they will have more business responsibilities incur more risks than a traditional business major. The question is, are we adequately preparing them for these challenges?

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A PREDICTIVE MODEL OF SMALL BUSINESS SUCCESS

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ABSTRACT

This study examines the relationships among locus of control, decision-making style, and small business strategy, and the extent to which these variables predict small business success. Self-administered questionnaires were distributed to 578 small business owners in Victoria, Australia. Entrepreneurs were viewed as the initiators of new, small businesses (with fewer than 100 employees) who were responsible primarily for making critical decision, selecting strategies, and determining the objectives of the business. The data were examined using structural equation modelling techniques (LISREL 7.20). The results suggest that to achieve business success beyond survival requires entrepreneurs to develop specific strategies to enhance business growth. Implications for entrepreneurial performance and further research are discussed.

BACKGROUND

The entrepreneurial sector plays a vital role in the design of strategies for economic recovery and growth in many nations. According to Hornaday (1992:12) “. . . the desperate desire for economic growth among developing countries has placed the spotlight squarely on entrepreneurship as a major factor in the success of capitalist economies.” Further, it is well recognised that small business development provides one of the few opportunities for employment growth to counter high rates of unemployment (Lumpkin & Ireland, 1988). In Australia, economic dependence on small business has increased in recent years as a result of retrenchments in the public sector and by large organizations (Kotey & Meredith, 1997). However, growth in the number of new businesses will not alter significantly the employment rates, particularly when the failure rate for new enterprises is considered to be as high as 60 per cent in the first three years of operation (Williams, 1987, cited in Reynolds, Savage & Williams, 1989:23). Therefore, a major hope for employment growth is that successful small businesses will expand and generate extra jobs.

Extensive research has been conducted to delineate the characteristics, behaviors, and managerial skills which may identify potentially successful small businesses. Studies of entrepreneurial personality characteristics have not yielded a clear picture (Boshoff, Bennett & Owusu, 1992). In addition, personality traits are not reliable predictors of future behavior (Gartner, 1989). Thus, attempts to develop a personality profile of a typical entrepreneur have been largely unsuccessful (Low & MacMillan, 1988). Further, a census-taking approach focuses mainly on documenting and reporting the occurrence of entrepreneurs or their personality characteristics with little attempt to uncover causal relationships or to explore implications for practice (Low & MacMillan, 1988). The current study addresses this deficiency evident in past research.

Research has attempted to identify key success factors that enhance the chances of survival in business (Huck & McEwen, 1991; Vesper, 1990). Some of the conditions that affect business success include level of education, previous work experience, availability of venture capital, the economic environment, role models, and access to support services (Birley, 1989a). Entrepreneurial competencies identified for success include management, planning, and budgeting skills (Huck & McEwen, 1991). However, previous studies have not examined the combination of perceptual factors which may explain how some entrepreneurs utilize resources to build successful businesses.

Locus of control (Rotter, 1966) is a perceptual variable which holds promise in predicting small business success (Brockhaus, 1986a; Gilad, 1982; Nwachukwu, 1995). Kuypers (1971) claimed that those who experience an internal locus of control believe that they can affect the outcomes of events in their lives and score higher on measures of coping. Phares (1976) noted that in contrast to externals, internals exert greater efforts to control their environment, exhibit better learning, and make better use of information in complex decision-making situations. A more recent study by Howell and Avolio (1993) of 78 managers in a large Canadian financial institution found that internal locus of control significantly and positively predicted business-unit performance. The current study examined this trend in the context of small business performance (success).

Several researchers have examined the decision-making characteristics of managers in large organizations (Buttner & Gyskiewicz, 1993; Mosley, O'Brien, & Pietri, 1991). However, the use of various business and economic principles that assist in explaining corporate manoeuvres may be of little assistance in understanding the successes and failures of small business. Although the importance of decision-making in emerging ventures has been recognized (Hambrick & Crozier, 1985; Mosley, O'Brien, & Pietri, 1991), little attention has been paid to styles of decision-making and their relationships to success in small business. The current study attempts to redress this deficiency through the development of a new instrument to measure small business decision-making style, namely The Entrepreneurial Decision-Making Style Inventory.

Small business strategy has been defined as the "methods, practices, and decision-making styles managers use to act entrepreneurially" (Lumpkin & Dess, 1996:136). Research in business has acknowledged the critical role of strategy for organizational survival and success. Many researchers have investigated organizational business strategy (e.g., Miles & Snow, 1978; Porter, 1985; Shirley, 1989). In contrast, information concerning small business strategy behavior is limited (Olson & Bokor, 1995). The current study addresses this deficiency and examines the impact of small business strategy on business success. A new instrument, namely The Small Business Strategy Typology, designed specifically to measure small business strategy was developed during the study.

The current study conceptualized the entrepreneur as the initiator of a new, small business in Australia (with fewer than 100 employees), who was responsible primarily for making critical decisions, selecting strategies, and determining the objectives of the business. The resulting business performance was evaluated according to three measures: business status (survival), employment of others, and net profit.

METHOD

A self-administered questionnaire was distributed to 578 New Enterprise Incentive Scheme (NEIS) graduates who had completed business training and established businesses before 1994 in

metropolitan or rural Victoria, Australia. A total of 255 useable responses were received (45 per cent response rate).

Several instruments were used in the study to examine perceptual variables. Locus of control was measured using 13 items from the Rotter (1966) Internal-External Locus of Control Scale (a shortened version). The scale consisted of two sub-scales, namely *Internal* locus of control, the belief that rewards come from one's own behavior, and *External* locus of control, the belief that rewards come from external sources (Rotter, 1971). The Cronbach alpha reliability coefficient for *Internal* locus of control was .76, and for *External* locus of control, .72.

A new instrument, The Entrepreneurial Decision-Making Style Inventory was developed in the current study to examine the habitual patterns individuals use in decision-making. Respondents rated how frequently they used the decision-making style described in each item using a five-point Likert scale where 0=*never* and 4=*most of the time*. The inventory consisted of three sub-scales: *Convergent* decision-making style which focuses on practical results, *Divergent* decision-making style which approaches problems from a new angle, and *Inventive* decision-making style which involves the generation of new ideas. The Cronbach alpha reliability coefficient for *Convergent* decision-making style was .64, for *Divergent* decision-making style, .70, and for *Inventive* decision-making style, .68.

A new instrument, The Small Business Strategy Typology was developed in the current study and consisted of two sub-scales: *Proactive* small business strategy which is forward-looking and where individuals take the initiative, and *Reactive* small business strategy which is cautious and where individuals takes a "wait-and-see" approach. Respondents rated how frequently they used the business strategies described on a five-point Likert scale where 0=*never* and 4=*most of the time*. The Cronbach alpha reliability coefficient for *Proactive* small business strategy was .75, and for *Reactive* small business strategy, .65. The Cronbach alpha coefficients for the instruments exceeded the Cronbach alpha of .63 for a new instrument developed by Niehoff, Enz, and Grover (1990:343) who stated that the result was "reasonable, considering the newness of the scale."

To measure small business success, data concerning business status (whether the business continued to operate, had been sold, or had ceased trading), number of employees (part-time/full-time), and income (net profit) were gathered.

Exploratory statistical techniques were used to investigate the relationships between and among variables, and included correlation analysis, cross-tabulation analysis, t-tests, analysis of variance, exploratory factor analysis, and multiple regression. Confirmatory factor analysis and structural equation modelling were used to examine complex interrelationships among variables using the generally weighted least squares method of LISREL (7.20). Details of the exploratory and confirmatory factor analyses which led to the development of the two new instruments have been omitted in this paper. Instead, the paper focuses on the structural equation model.

RESULTS AND DISCUSSION

The majority of respondents (80 per cent) had businesses that continued to operate at least a year after completing the NEIS course. Only 14 per cent of respondents had ceased trading (the criterion for business failure in the current study). Around one-third of respondents (36 per cent) employed others. Almost half the respondents (49 per cent) stated that the net business profit

(excluding other sources of income) for the previous financial year was less than \$10,000. A further 25 per cent claimed that their net profit was between \$10,000 and \$19,999 and only 19 per cent had net profits in excess of \$20,000. However, the results need to be considered with caution as net profit has been shown to be an unreliable indicator of business success (Gome, 1994).

Based on a review of the literature, it was envisaged that selected background variables would be included in the model. However, the sample size (N=211), restricted the total number of variables that could be utilized in the structural equation model and therefore background variables were omitted.

The current study used a range of measures to determine the degree to which the measurement model predicted the observed covariance matrix. The measurement model produced a chi-square of 21.72, $df=29$, $p=.831$, with a Goodness-of-Fit Index of .985 (Adjusted Goodness-of-Fit: .971), and a Root Mean Square Residual of .029. The significance level of greater than .1 or .2 confirms non-significance (Fornell, 1983) and indicates that the actual and predicted input matrices are not statistically different. The Goodness-of-Fit for the measurement model was greater than the threshold for acceptance of .90 (Hair, Anderson, Tatham, & Black, 1992), and the Root Mean Square Residual was less than .05, the critical value suggested by Sörbom and Jöreskog (1982). Thus, a range of measures indicated that overall, the measurement model had an acceptable level of fit to the data.

A number of significant direct relationships was evident between sub-scales of the same constructs. *External* locus of control had a negative direct effect on *Internal* locus of control (-.301). In other words, the higher the score for *External* locus of control, the lower the score for *Internal* locus of control. Thus where respondents attributed control to outside forces, it diminished their belief in having control over their own affairs. Similarly, *Convergent* decision-making style had a negative direct effect on *Inventive* decision-making style (-.366). In other words, high scores for *Convergent* decision-making style reduced the score on *Inventive* decision-making style. In contrast, *Divergent* decision-making style had a positive direct effect on *Inventive* decision-making style (.672). Also, *Reactive* strategy had a positive direct effect on *Proactive* strategy (.499).

All the hypothesized paths as suggested by theory in the structural equation model were statistically significant. The significant positive and negative direct and indirect effects for variables in the structural equation model were examined. The findings suggested that *External* locus of control and *Convergent* decision-making style were the only variables examined which impacted negatively on other variables. *External* locus of control, *Inventive* decision-making style, *Reactive*, and *Proactive* strategy had direct effects on measures of business success.

The relationship between locus of control and small business success was investigated. The structural equation model indicated that *External* locus of control had a significant, negative, direct impact on survival (-.174). In other words, respondents with high scores for *External* locus of control would have reduced chances of survival in business. Although there were no direct effects evident between *Internal* locus of control and any of the measures of business success, *Internal* locus of control had a positive, indirect effect on survival, employment growth, and subsequently income through *Divergent*, *Inventive* decision-making style, and *Proactive* strategy.

The relationship between decision-making style and small business success was investigated. The structural equation model indicated that *Inventive* decision-making style had a significant, positive, direct effect on small business survival (.254). The results are consistent with earlier

quantitative analysis in the current study which indicated that respondents who had survived in business used *Inventive* decision-making style more frequently than respondents who were no longer in business ($t=2.82$ ($n=239$), $p<.001$). Further, the early results suggested that respondents employing others used *Divergent* and *Inventive* decision-making styles more frequently than respondents who did not employ others. For *Divergent* decision-making style the mean difference was $-.23$ ($t=2.74$ ($n=249$), $p<.001$), and for *Inventive* decision-making style the mean difference was $-.33$ ($t=3.93$ ($n=249$), $P<.001$). The structural equation model clarified further the relationships among variables. *Divergent* decision-making style had a significant, positive, direct effect on *Inventive* decision-making style (.672) which had a significant positive, indirect effect on employment growth through *Proactive* strategy. The results confirmed previous research which demonstrated that entrepreneurial cognitive processes (including decision-making) affected goals to create innovation, provide employment, and sales growth (Bagby, Palich, and Stetz, 1996). Thus, the model suggests that *Inventive* decision making style may indirectly improve chances of business success in the form of employment growth by having a direct positive effect on *Proactive* strategy.

The relationship between small business strategy and small business success was investigated. The structural equation model indicated that *Proactive* strategy had a significant positive direct effect on employment (.241). This relationship was consistent with the results from previous studies which suggested that there was a significant positive relationship between strategies equivalent to *Proactive* strategies in the current study and business growth (Baum, 1995; Merz, Weber, & Laetz, 1994). Also, *Reactive* strategy had a small but significant positive, direct effect on employment growth (.030). In other words, the model suggested that for small businesses to develop to the point of employing others, *Reactive* strategies as well as *Proactive* strategies may be necessary. These results contradicted previous research which suggested conservative or focused business strategies (similar to *Reactive* strategies) have a negative impact on business success (Kotey & Meredith, 1997; West 1992). However the results are consistent with recent research which has suggested that businesses using a combination of strategies outperformed businesses which adopted a single strategy (Carter, Williams, & Reynolds, 1997).

The relationships among measures of small business success were investigated. The measurement model indicated that survival had a significant, positive, direct effect on employment (.287), and employment had a significant positive, direct effect on income (.434). The model suggested that in order to generate additional income, employment of others was a necessary pre-condition. Therefore, employment generation would appear to precede income growth.

CONCLUSION

This study examined the relationships among locus of control, decision-making style, small business strategy, and small business success as measured by survival, employment growth, and income. Previous research has examined the relationship between each variable and business success separately without examining the combination of variables. Thus, the structural equation model provided a comprehensive means for examining the integration of perceptual variables that impact on small business success.

Nwachukwu (1995) suggested that locus of control held promise for distinguishing successful from unsuccessful entrepreneurs. However, the results from the current study demonstrated that only

External locus of control had a direct (negative) impact on business success (survival). The measurement model indicated that the effects of *Internal* locus of control are transmitted through decision-making style and business strategy to business success. Therefore, the current study clarified the relationship between locus of control and small business success.

The results elucidate theory which suggests that the reasoning process of entrepreneurs is a potentially powerful area of influence on new venture success (Pate, Driver, Gatewood, Goodman & Coombs, 1990). Decision-making style appeared to play a pivotal role in the model. *Inventive* decision-making style had a direct impact on *Proactive* strategy and business survival. In addition, *Inventive* decision-making style had an indirect effect on employment through *Proactive* strategy. Overall the results suggest that *Inventive* decision-making style may differentiate between growth (in terms of employment) and non-growth businesses.

The results of the current study supported the premise that the strategic approach of a new venture has a crucial impact on its performance (Carter, Williams, & Reynolds, 1997). However, the current study highlighted the importance of using a combination of strategies for small business growth. *Reactive* strategy had a significant, direct effect on employment which suggested that for small businesses to develop to the point of employing others, *Reactive* strategies as well as *Proactive* strategies should be considered. The model indicated that *Proactive* strategy predicted employment of others. Thus, the frequency of use of *Proactive* strategy may differentiate between growth (in terms of employment) and non-growth businesses. Overall, the results suggest that to achieve business success beyond survival requires entrepreneurs to develop specific strategies to enhance success. Further research is required to identify the specific strategies that enhance business growth.

Previous research (Brockhaus, 1982; Nwachukwu, 1995; Ward, 1992) suggested that internal locus of control could be used to predict entrepreneurial success. However, the results from the current study highlight the need to take into account the impact of other variables in determining small business success. The findings have important implications for predicting small business success. Thus, given the central role of decision-making style in the model, it would be appropriate to include not only locus of control but also instruments to measure decision-making style and small business strategy in an inventory to predict potentially successful entrepreneurs. Overall the results suggest that *Inventive* decision-making style may differentiate between growth (in terms of employment) and non-growth businesses. Such an inventory should allow government funding of small business development programs to be better targeted, by selecting and supporting entrepreneurs who are likely to develop growth businesses which in turn could provide employment opportunities. Further, such an inventory could assist prospective entrepreneurs to assess more accurately the probabilities of success. Finally, the study highlighted the need to conduct further research into the interactive nature of variables which sustain the entrepreneurial process.

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BUSINESS ETHICS: US AND AUSTRALIAN PERSPECTIVES

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ABSTRACT

This study compares ethical attitudes of undergraduate business students in an Australian University with undergraduate business students in a North American University. Scenarios were presented which dealt with issues including insider trading, padding the expense account, choosing between a "qualified" person or one with personal and political contacts, age discrimination, paying substandard wages, and giving gifts. The researchers focused on gender and culture differences. The populations in each country had a diverse student population. There are more similarities than differences comparing US and Australian populations. Though there are differences, the major differences show up between the females of the ethnic White US compared with the females of the ethnic Australian. Implications and recommendations for further study are discussed.

INTRODUCTION

A questionnaire adapted from scenarios and scales developed by Clark (1966), enhanced by Arlow and Ulrich (1980), Stevens (1984), and Stephenson, Galbraith and Grimm (1995) was used to assess responses to eight scenarios depicting ethical situations being faced by a decision maker that requests a respondent to assess what he or she thinks the decision maker in the scenario will do, what the respondent would do if faced with decision, and what the respondent feels he or she should do in that situation. The criteria for judging a response to be "ethical" was that the responses of the group would increase from not many perceiving the decision maker would choose that response, to more of that response being selected by the respondent if he or she were the decision maker to even more selecting that response when asked what should be done. For example, the first scenario was:

1. Lawrence Stone, a member of the Board of Directors of Scott Electronics, has just learned that the company is about to announce a 2-for-1 stock split and an increase in dividends. Stone personally is on the brink of bankruptcy. A quick gain of a few thousand dollars can save him from economic and social ruin. He could purchase the stock now to sell in a few days at a profit.

a. Do you think Lawrence Stone would purchase the stock to sell at a profit?

yes___ no___

b. What would you do if you were Stone? buy___ not buy___

c. What should you do? buy___ not buy___

In the Australian sample (Table 1, second column), only 18.4% of the respondents felt the decision maker would select the not buy response, 35.5% of the respondents would not buy if they were the decision maker, and 61% indicated that one should not buy in that situation. Thus, "not buy" or not act on insider information was considered selected by the group to be the "ethical" response. For purposes of this paper, we have labeled it the should directioned response.

Studies have repeatedly found that "the other is rather continually/predictably considered to be less ethical than I am," (Brenner & Molander, 1977; Ferrell & Weaver, 1978; McDonald & Zepp, 1988; Pitt & Abratt, 1986; Stephenson et al., 1995; Tyson, 1990, 1992). Michalos (1990) reviewed seven studies including two of his own and concluded that one consistency across all of the studies was that "most people think most people are not as nice as they themselves." Others are not viewed as trustworthy or as ethical. Alternatively, self-ratings are higher than ratings provided by others (Morgan, 1993). 1) Few studies show clearly the extent to which this operates by also asking what the person would do. Even further studies have gone to the third issue of demonstrating that people probably have a pretty good idea of what ethical behavior is or what ought to be done; however, they admit their actions might be different from what they ought to do.

Studies have also indicated that there may be gender differences in ethical attitudes and behaviors. Where differences have been found, the differences have tended to suggest that females may be more ethical than males (Arlow, 1991; Betz et al., 1989; Boyd, 1981; Crow et al., 1991; Ferrell & Skinner, 1988; Jones & Gautschi, 1988; Peterson et al., 1991). 2) Cross cultural ethics studies are increasing, yet the inquiry seldom gets to the level of gender differences between the populations. Yet, in a global economy, women are increasingly becoming a larger and larger component in the education system. (In the US, more women than men are now enrolled in colleges and universities: in 1976 it was 5,191,000 women to 5,794,000 males; in 1996 it was 8,014,700 females compared with 6,352,800 males ["College Enrollment," 1998].) The "White" racial/ethnic group designation went from 9,076,100 White out of a total of 10,985,600 in 1976 to 10,263,900 out of 14,367,500. Women are moving into top management positions. The October 12, 1998 cover story of *Fortune* is "The Fifty Most Powerful Women in American Business." This study looks at cross cultural gender impacts on ethics.

The field has very little agreement on what is ethical behavior so it might be more meaningful to just refer to "differences in perception". . . especially at this exploratory stage. There is little agreement on the best way or an acceptable way to measure ethics if there were agreement on what it is. . . . The scenarios in this study, though used by other researchers, may still not be measures of ethics. The sample in this study compares students from a university in the US who designated themselves as White/Caucasian and students from a university in Australia who designated themselves "Australians." In the US study, the scenarios were secured from students taking the senior capstone course during 1996-1998.

<i>US undergraduates</i>	<i>Australian undergraduates</i>
89 males	87 males
97 females	87 females
<i>White ethnicity</i>	<i>"Australian" ethnicity</i>
55 males	56 males
52 females	44 females

FINDINGS

H_1 US = Australia

There will be no differences between US and Australian responses.

TABLE 1
US/AUSTRALIAN PERSPECTIVES

Scenario	US		Australian		
	%	(n/N)	%	(n/N)	
Q1. Not buy					
Decision maker	30.7	(58/189)	18.4	(42/228)	*.003
You would do	53.4	(101/189)	35.5	(81/228)	*.000
Should do	71.3	(134/188)	61.0	(139/228)	*.028
Q2. Not supplement					
Decision maker	49.2	(92/187)	46.3	(105/227)	
You would do	78.2	(147/188)	77.5	(176/227)	
You should do	85.6	(161/188)	86.8	(197/227)	
Q3. Select qualified Grimes					
Decision maker	51.6	(96/186)	49.1	(110/224)	
You would do	82.9	(155/187)	82.2	(185/225)	
You should do	89.4	(168/188)	89.7	(201/224)	
Q4. Release younger workers					
Decision maker	45.6	(82/180)	38.1	(83/218)	
You would do	53.8	(93/173)	40.9	(85/208)	*.012
You should do	65.7	(109/166)	49.8	(102/205)	*.002
Q5. Notify employees					
Decision maker	65.1	(121/186)	57.3	(130/227)	
You would do	90.3	(168/186)	86.4	(197/228)	
You should do	92.5	(172/186)	90.7	(206/227)	
Q6. Not distribute in Canada					
Decision maker	14.4	(27/188)	14.2	(32/226)	

You would do	27.3	(51/187)	30.5	(69/226)
You should do	35.6	(67/188)	42.9	(97/226)
Q7. Not pay substandard				
Decision maker	22.7	(42/185)	30.2	(67/222)
You would do	64.5	(118/183)	62.2	(138/222)
You should do	72.6	(135/186)	68.2	(152/223)
Q8. Not gifts				
Decision maker	10.7	(20/187)	10.4	(23/221)
You would do	23.4	(44/188)	24.4	(54/221)
You should do	41.8	(77/184)	43.4	(96/221)

When the respondents were asked what they thought the decision maker in the scenario would do (Table 1), there is a significant difference at .003 to the first scenario, only with more of the US sample (30%) believing the decision maker would do the ethical thing than did the Australian sample (18.4%). That is, in only one out of eight scenarios was there a significant difference.

When the respondents were asked what they would do in the decision maker's shoes (Table 1), there were significant differences in responses to Question 1 and Question 2. On the first scenario, 53% of US said they would do the ethical thing compared with 35.5% of the Australian sample (.000 significance). For Question 4, 53.8% of the US sample chose the more ethical compared to 40% of the Australian (.012 significance)

When the respondents were asked what they should do, the significant differences came up again in scenarios 1 and 4, with US strongly saying insider trading should not be done (71.3%) and the Australian sample heavily in the same direction at 61% with a significance of .028. Question 4 with question of letting younger or older employee go, the US sample responded 65.7%--the Australian 49.8% at .002 significance.

Out of a possible 24 measures, only 5 were significantly different. All those 5 differences were the US sample perception choosing the more "should" directed responses.

H₂ US males = Australian males, US females = Australian females

There will be no differences between the male US and male Australian responses and the female US and female Australian responses.

When comparing US males in this sample to Australian males, for all three situations per scenarios, there were three significant differences: Question 5 what decision maker would do US 68.2% versus Australia 54%; Question 6 what you ought to do US 24.7%, Australia 47.1%; Question 8 what you would do US 10.1%, Australia 21.2%.

The female responses were significantly different in six responses: Question 1 decision maker would not purchase stock US 36.1%, Australia 16.1%; you would US 56.7%, Australia 35.6%, you should US 78.1%, Australia 64.4%; Question 4 you would US "younger" 61.6%, Australia 43.4%; you should US 78%, Australia 54.2%; Question 7 "not pay substandard" US 79.2%, Australia 63.2%.

In all six instances, the differences were in the direction of a greater percentage of US females selecting/perceiving the "should" responses.

H₃ US White = Australian (ethnic)

There will be no differences in responses between the ethnic White US and the ethnic Australian sample.

There are 11 significant differences toward more "should" directed responses by the US sample.

H₄ US White males = Australia males, US White females = Australia females

There will be no differences comparing White females and Australian (ethnic) females nor when comparing White males and Australian (ethnic) males.

Comparing the White females with the ethnic Australian females, there are 10 significant differences with only 2 significant differences showing up when the White males perceptions are compared with the ethnic Australian males.

IN SUMMARY

Overall, this study found as the literature would indicate (Table 1) respondents in this sample from US and Australia tended to think the other people were less ethical than themselves.

When comparing all the students in the US sample with all the students in the Australian sample, there were 9 significant differences in the 24 possible responses with 6 of the differences being the female comparison with the US female responses indicating more selections that had reflected the "should" direction. Comparing only the White with the ethnic Australian, yielded 11 differences all toward the more "should" directioned responses by the US sample. Those differences showed up as gender differences between the White females and the female ethnic Australians with 10 significant differences in their responses and 2 differences in comparing the male responses.

RECOMMENDATIONS

This preliminary analysis suggests that there are cultural differences on ethical issues. These cultural differences may be even more magnified between cultures when gender and ethnic perception are considered. That is, at least in this study with this small sample, the female gender differences between these two ethnic cultures were considerably "more robust" than between the males who seemed to hold quite similar perceptions.

This has implications for global management, for teaching ethics with diverse constituents. Group projects in the academic environment that are supposed to be training grounds for team building and high group performance in the work environment have their work cut out for them. Diverse populations may well hold diverse ideas of ethics/values. This emphasizes the need to clarify ethical expectations within a culture as well as between cultures and especially between the genders within and between cultures. What is acceptable behavior in the classroom, in the global business environment? This preliminary analysis has definite implications for management, motivation, consulting, marketing, and especially education. The scenarios need to be expanded, and the study needs to be replicated to increase the generalizability of the findings.

FOR REFERENCES CONTACT THE AUTHORS

SOARING INTO THE THIRD MILLENNIUM: CYBERSPACE ENTREPRENEURSHIP PROGRAM

Wil Clouse, Vanderbilt University

ABSTRACT

The symposium will discuss the development of a world wide entrepreneurship program that will use a wide range of technology including the World Wide Web, infrared technology and videoconferencing. We will develop entrepreneurial cases that will involve middle schools, high schools, community colleges, universities and entrepreneurs. The cases will emphasize creativity, chaos, uncertainty and "living outside the box". Students from the different groups will interact with each other and college and university students will also review local middle and high school students' cases. Entrepreneurs will be on-line to review all cases and make comments. On-line Web sites will be available to help develop solutions to the cases. A teacher chat room will also be available for each education level and videoconferencing will be held between paired groups.

Summer conferences will be held each year by education level to develop additional cases. This will involve the educators in the process. An on-line Entrepreneurship Journal site will be developed for each educational level. Students will have the experience of publishing on the Web, after going through a review process. At the present time we are working with four different colleges and twenty different schools. We expect to connect to other schools and universities in Finland, Norway, Scotland, France, Cost Rica and South America in the next few months.

If Web access is available at the conference and if we are ready by January 1999, we would like to demonstrate some of the features of the exciting and innovative opportunity in the realm of entrepreneurship education.

DEFINING THE ENTREPRENEURIAL TEAM

Michael D. Ensley, University of North Carolina - Charlotte

ABSTRACT

The focus of this research is an empirical evaluation of the definition of entrepreneurial teams. The strategic perspective of entrepreneurial teams is one which contends that the extent to which someone is strategically aware is related directly to his or her involvement in the firm's management team. Competing definitions of an entrepreneurial team are evaluated using a non-parametric discriminant analysis. The research conclusion is that a new definition of entrepreneurial teams is in order; a definition which would allow entrepreneurship researchers to explore the operational processes by which entrepreneurial teams manage their businesses. The manuscript closes with a recommendation for such a definition.