

# A Study Of Multiple Intelligences And Higher Education Faculty In The United States

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## ABSTRACT

*This quantitative research study discovered and identified the degree of relationships between the domains of multiple intelligences: (a) interpersonal, (b) intrapersonal, and (c) linguistic intelligences, and (d) leadership and demographic characteristics such as, (a) age, (b) gender and (c) ethnicity among higher education faculty. Using a survey instrument, primary data was collected from a sample of 205 faculty members within the United States. Furthermore, the researcher examined and analyzed certain aspects of the field of leadership, and the impact Gardner's multiple intelligences may or may not have on leadership selection, training and development based on the results obtained. This paper provides a summary of the study and its results along with possible implications and recommendations for administrators, managers and leaders in academia.*

## INTRODUCTION

Ineffective leadership at the helm has major consequences for the vitality of a business and has proven to be very costly (Tyrell & Swain, 2000). Developmental Dimensions research shows that it costs at least \$1 million to employ a new executive for a year (Ellis, 2003). Statistics gleaned from the *100 People Report Participant* indicated that in 2001 it cost companies millions of dollars to replace managers and hourly staff. The figures from the *100 People Report Participant* indicated that in 2001 it cost companies more than \$454 million to replace managers and \$4 million to replenish hourly staff (Lebhar-Friedman, 2003).

The specific problem for this research study centered on identifying, retaining, or developing future leaders within organizations. Possible causes of organizations being ineffective at identifying, retaining, or developing future leaders are the current recruiting and leadership-training tools used for selecting leaders who are not competent, or the poor implementation of effective development programs for leaders (Fiedler, 2001; Freeman, Inc., 1999). The theory of multiple intelligences has significant implications for leader effectiveness, leader selection and training/development. Mitigating overlooked talent, eliminating unfilled or poorly filled niches present within organizations and in our society, and guiding the leaders with the right skill sets for the right role are challenges addressed by the theory of multiple intelligences (Gardner, 1993).

Leadership effectiveness has always been and will continue to be paramount to the success of organizations (Robbins, 2001). To compete, leaders of organizations must have global sensitivity, cultural fluency, technological literacy, entrepreneurial flair, and a plethora of effective leadership skills, talents and abilities (Crainger & Dearlove, 1999). Each work environment and situation may require unique leadership expectations ranging from, but not limited to, transmitting knowledge, creating an environment that influences the behaviors of human beings or fostering innovative operational solutions to realize the organization's vision (Shahnasarian, 1996). While leadership challenges will continue to heighten due to internal and external organizational pressures, the shortage of executive talent is seen to be the foremost challenge organizations will face within the next few decades (Crainger & Dearlove, 1999).

Contemporary and recent studies have suggested that intelligence contributes to effective leadership (Riggio, Murphy & Prozzolo, 2002). Since the 1920s and 1930s, leadership theorists have indicated that "multiple forms of intelligence possessed by effective leaders are the types of characteristics that may make leaders effective in a range of

leadership situations, because they involve abilities to adapt to a variety of social and interpersonal situations” (Riggio et al., p. 3). Steinberg’s Triarchic Theory of Intelligence and Howard Gardner’s Multiple Intelligence Theory are two well-known frameworks for multiple intelligences (Riggio et al.).

Leadership theorists such as Fiedler, Bass, Chemers and Winter include multiple intelligences into their leadership theories (Riggio et al., 2002). Armstrong (1999) suggested that multiple domains of intellectual abilities have a unique skill and occupational channel. However, Gardner (1999) believed that structural roles are matched to domains of multiple intelligences.

This study was based on the theoretical framework of Gardner’s (1999) original seven domains of multiple intelligences, including various human intelligences such as musical intelligence to intrapersonal intelligence, the intelligence involved in understanding oneself. In addition to Gardner’s original list of seven domains of multiple intelligences, three additional domains of intelligences such as naturalistic, spiritual, and existential were discussed as possible candidates for inclusion. Although contemplated, Gardner (1999) had not expanded the original list of seven domains of multiple intelligences, and thus this study focused on three of Gardner’s original list of seven domains of multiple intelligences. This study closely examined interpersonal, intrapersonal, and linguistic domains of multiple intelligences of leaders, as Gardner (1999) indicated that these three domains of multiple intelligences are demonstrated by and crucial to leaders.

## **RESEARCH METHODOLOGY**

This research study utilized a quantitative, non-experimental, descriptive correlational method that collected “data on predetermined instruments that yield statistical data” (Creswell, 1994, p. 18). Since the research study utilized a survey, summarized data through statistical analysis, and explored possible correlations, it was deemed appropriate to utilize a quantitative method in this research study. Several types of quantitative research methods include, and are not limited to, (a) descriptive, (b) correlational, (c) developmental, (d) observational study, and (e) experimental or (f) quasi-experimental methodologies (Creswell, 1994; Leedy & Ormrod, 2001). The primary and distinct advantage of using a correlational method over the causal-comparative or experimental methods “is that it permits the relationships [to be analyzed] among a large number of variables in a single study” (Gall et al., 1996, p. 414). The correlational research method accomplished the research study goals, since the quantitative methods utilized in this research study relied on postpositivist knowledge claims, and utilized a survey instrument as an inquiry tool to discover the degree of relationships between the domains of multiple intelligences: (a) intrapersonal, (b) interpersonal, and (c) linguistic intelligence, and (d) leadership and demographic characteristics such as, (a) age, (b) gender, and (c) ethnicity among a population of 287 XYZ faculty within the United States (Creswell, 1994). Creswell (1994) stated “it is also the best approach to use to test a theory or explanation” (p. 22).

This quantitative, non-experimental, descriptive correlational research method discovered the degree of relationships between the domains of multiple intelligences: (a) intrapersonal, (b) interpersonal, and (c) linguistic intelligence, and (d) leadership and demographic characteristics such as, (a) age, (b) gender and (c) ethnicity among a population of 287 XYZ faculty members within the United States. This correlational method involved collecting data on several variables: (a) intrapersonal intelligence, (b) interpersonal intelligence, (c) linguistic intelligence, (d) leadership, (e) age, (f) gender, and (g) ethnicity and computing a chi-square (Gall et al., 1996). This quantitative, non-experimental, descriptive correlation study approach described the relationships among variables, predicting a criterion variable, and/or testing a model of the interrelationship among variables (Locke, Silverman & Spirduso, 1998). This study design also provided a credible approach to clearly understanding the relationship between the data collected (Bickman & Rogs, 1997).

The intact instrument selected for this study called the Multiple Intelligences Checklist developed by Kline and Saunders (1998) was adapted from the domains of multiple intelligences work of Howard Gardner. The checklist is an appraisal of an individual’s multiple intelligences and included 77 multiple intelligence characteristics. “We all possess multiple intelligences. The relative strength varies from person to person, partly because of the different ways we have all developed as a result of our learning experiences” (Kline & Saunders, p. 175). Kline and Saunders (1998)

developed this “checklist which provides a simple and easy appraisal of an individual’s multiple intelligences” (p. 152).

### **SUMMARY OF STUDY, DATA AND ITS RESULTS**

The purpose of this quantitative, non-experimental, descriptive correlational study was to discover the degree of relationships between the domains of multiple intelligences: (a) intrapersonal, (b) interpersonal, and (c) linguistic intelligence, (predictor variables) and leadership and demographic characteristics such as, (a) age, (b) gender and (c) ethnicity (criterion variables) among a population of 287 XYZ faculty within the United States. XYZ faculty included leaders defined as persons who manage or supervise an individual or staff of people within an existing organization, or non-leaders, defined as persons who do not supervise or manage an individual or staff of people within an existing organization (Hesselbein et al.). XYZ faculty have professional work experiences across diverse functions, and this study indicated their leadership match, meaning the faculty’s perceived leadership intellectual fit from a skill, talent, or ability perspective for their current position. The study revealed the demographic profiles of XYZ faculty who are perceived to have (a) intrapersonal, (b) interpersonal, and (c) linguistic domains of multiple intelligences, consistent with Gardner’s (1999) research on leaders. Additionally, the study determined if there are variations of the leadership domains of multiple intelligences, based on Gardner’s (1999) research, among XYZ faculty.

The researcher examined and analyzed primary data using the Multiple Intelligences (MI) Checklist and demographic questions administered via mail or personally to XYZ faculty. The MI Checklist is an instrument used to appraise multiple intelligences of XYZ faculty and included 77 multiple intelligence characteristics. In addition, the respondents were asked six demographic questions pertaining to their leadership or non-leadership status, years of teaching experience, gender, age, profession, and ethnicity. This research examined four hypotheses, and, using chi-square tests developed for each null hypothesis, focused on the aforementioned predictor and criterion variables.

The literature review unequivocally supports the notion regarding the significance of effective leadership as the foundation of organizational success, and how effective leadership selection, training, and development is paramount to making organizational success a reality. Current literature also purports that learning organizations of today and tomorrow will require innovative and viable selection, training, and development approaches to attract and retain exceptionally talented and skilled individuals, be it leaders or non-leaders. It is believed that the theory of multiple intelligences is a viable answer that addresses this challenge, and offers solid approaches to enhance human intelligences, and individualized learning that will contribute to organizational success.

Chi-square tests were developed for each null hypothesis. The data results revealed the demographic profiles of XYZ faculty that self reported to have (a) interpersonal, (b) interpersonal, and (c) linguistic domains of multiple intelligences. The highest proportion of responses among XYZ faculty, both leaders and non-leaders, were female, white, between the ages of 51 to 60 years, and currently working full-time in a professional capacity.

The data results indicated variations of the domains of multiple intelligences of XYZ faculty. Interestingly, the data indicated that 50% or more of the leader respondents selected statements on the checklist relating to interpersonal, intrapersonal, linguistic, and visual/spatial intelligences as their top domains, meaning their most prominent domains. Whereas, data results indicated 50% or more of the non-leaders also selected interpersonal, intrapersonal, and visual/spatial intelligences statements, however less than 50% of the non-leaders selected linguistic intelligence statements.

The data results regarding the relationships between the domains of multiple intelligences: (a) intrapersonal intelligence, (b) interpersonal intelligence, and (c) linguistic intelligence, (predictor variables) and (d) leadership and demographic characteristics such as (a) age, (b) gender, and (c) ethnicity (criterion variables) among a sample of 205 XYZ faculty within the United States, suggest the following:

First, this study confirmed that XYZ faculty classified as leaders embody the domains of multiple intelligences Gardner (1999) suggested are crucial to leaders. These domains of multiple intelligences are interpersonal intelligence, intrapersonal intelligence, and linguistic intelligence. The data results for this study

indicated that 50% or more of XYZ faculty classified as leaders, self-reported to have interpersonal, intrapersonal, and linguistic intelligences as their top domain. The top domains are those most prominent intelligence statements selected by the respondents, as they believed characterized them.

Second, this study solidified the prevailing view that multiple intelligences are present and unique for every individual. The data results for this study indicate that leaders and non-leaders embody similar yet different human intelligences. This study revealed that 50% or more of XYZ faculty classified as leaders embodied as their top domains, intrapersonal, interpersonal, linguistic, and visual/spatial intelligences. Interestingly, 50% or more of XYZ faculty classified as non-leaders embody as their top domains, intrapersonal, interpersonal, and visual/spatial intelligences. However, less than 50% of the XYZ faculty classified as non-leaders selected linguistic intelligence statements.

Third, this study revealed the demographic profiles of XYZ faculty. The data results of this study solidified the notion as discussed in the literature review that individuals are not only different from a demographic perspective such as age, gender, ethnicity, and professions, individuals have unique multiple intelligence characteristics, and this uniqueness is linked to their learning, problem solving, and decision making skills. The highest proportion of responses among XYZ faculty, both leaders and non-leaders, were female, white, between the ages of 51 to 60 years, and currently working full-time in a professional capacity. Based upon the demographic characteristics of the respondents who self-reported to have the intelligences the results point to a very important conclusion. The data results suggest that XYZ faculty that are female, white, between the ages of 51 to 60 and currently working full-time in a professional capacity, demonstrate unique learning, problem solving, and decision making skills characterized by leaders more so than other XYZ faculty of a different gender, ethnicity, age, or profession.

Fourth, the data results of this study also depict variations of (a) intrapersonal, (b) interpersonal, and (c) linguistic domains of multiple intelligences of XYZ faculty. For leaders and non-leaders alike, the data results indicate that their top domains, or most prominent domains, were intrapersonal intelligence, totaling 161 respondents, or 78.5%, followed by interpersonal intelligence, totaling 137 respondents, or 66.8%, visual/spatial intelligence at 116 respondents, or 56.6%, logical/mathematical intelligence at 101 respondents, or 49.3%, and linguistic intelligence at 99 respondents, or 48.3%. The data results agree with the literature view of organizations exhibiting a range of intelligences. Furthermore, the data results of this study agree with the literature view, and suggest the importance of organizations and its employees to demonstrate personal intelligences, specifically if the entity is involved in public interaction, and its product, or service deliverable is in the area of self-knowledge. XYZ is certainly an organization that constantly interacts with the public, is a learner-centered institution, and the faculty embodies personal intelligences as their top domains.

Plausible explanations for the first and second conclusions drawn that leaders embody (a) intrapersonal, (b) interpersonal, and (c) linguistic intelligences, and these multiple intelligences are present, unique, and vary in percentage levels for XYZ faculty, leaders and non-leaders may be attributed to their diverse beliefs and valued human traits, varied lessons drawn from their experiences in life, and their ability to effectively apply those lessons.

A possible explanation for the third conclusion drawn that the demographic profiles of XYZ leaders are unique, and for this study indicated the highest proportion of (a) intrapersonal, (b) interpersonal, and (c) linguistic responses among XYZ faculty, both leaders and non-leaders were female, white, between the ages of 51 to 60 years, and currently working full time in a professional capacity may be attributed to the possible differences in the way men and women faculty of XYZ prioritize intelligences. A research study conducted by Carol Gilligan on moral judgments indicate that females place a greater emphasis on interpersonal considerations, as males tend to draw on intelligences such as logical/mathematical thinking (Gardner, 1999). “Interestingly, one-often noticed and scientifically supported difference between men and women leaders may prove to be a boon for women managers. Women often score higher on measures of [intrapersonal, interpersonal, and linguistic intelligence characteristics, such as] patience, relationship development, social sensitivity, and communication” (Dessler, 2001, p. 305).

## **Implications**

There are several implications that are evident from the data results of this study. They are as follows:

First, successful organizations of the future must be poised to understand and demonstrate its core competencies and leadership capabilities of its diverse workforce as essential for its survival to remain as a competitive force in our dynamic, global society. To maximize organizational effectiveness, organizations and their employees will be required more than ever to understand and apply domains of multiple intelligences characteristics of leadership as described by Gardner as crucial to leaders. In addition to creating new products and services and enhancing knowledge intensive competences, organizations must focus on implementing viable processes to understand, select, train, and develop leadership talent. It is imperative for organizations to focus on implementing viable processes to understand, select, train, and develop leadership talent. Leadership as a role of management designated for the select few is no longer effective. Leadership, more than ever before, has become a role for employees of all levels and roles within learning organizations. Thus, organizations must be aware of the leading and learning requirements for organizational success to become a reality.

Second, it is imperative for organizations and its employees to understand the benefits and apply the various domains of multiple intelligences in their organizational settings. This is necessary to meet the unique training needs required for each employee, to maximize the skills of each employee, and enhance organizational productivity. Knowledge of the domains of multiple intelligences that are present or lacking by organizations or its employees can foster a dialogue that assist with understanding: (1) current approaches to learning, including handling ideas and situations, (2) how new information is learned and styles favored by individuals, and (3) viable alternatives to emphasize preferred learning styles or problem solving techniques. Knowledge of the domains of multiple intelligences, present or lacking by its employees, can also be linked to determine the best training and delivery methods to meet the needs of the individuals and the organization.

Third, although Gardner's multiple intelligences theory has been applied to the field of education, multiple intelligences should be extended into the larger arena of business and other fields. Although research on multiple intelligence and leadership is still relatively new, there are important implications to understanding the true relationship between multiple intelligences and leadership effectiveness. As the relationship between multiple intelligence and leadership is better understood, this may lead to viable approaches to enhance the selection, training, and development of organizational leaders in education, business and other fields.

## **Recommendations**

Based on the results of this study, several recommendations are suggested, and include the following:

*Recommendation 1: Develop a Sound Leadership Selection Strategy.* A viable organizational strategy for implementing effective leadership selection, training, or development processes for XYZ should begin with a systemic approach of clearly understanding the organizations vision, mission, and needs, coupled with position requirements, and ideal candidate requirements. Whether high quality leadership talent is selected from employees from within the organization or candidates external to the organization, in addition to succession plans, nominations from knowledgeable others, advertisement, and using executive research firms, there are other suggested tools to help develop or improve its leader selection decision making process. Suggested tools to develop or improve XYZ leader selection decision making process, in addition to succession plans, nominations from knowledgeable others, advertisement, and using executive research firms, include using multiple intelligence computer-based simulations that match the qualifications of the candidates to the organizations needs, coupled with 360 degree interview sessions, review of the candidates resume, e-portfolio, and questioning the candidates documented referrals.

*Recommendation 2: Tailor Leadership Training and Development Programs.* XYZ should tailor its faculty training and development programs based on the domains of multiple intelligences of its faculty linked to preferred learning styles. It is recommended that an online training delivery program be designed to assess XYZ faculty learning styles that reveal their multiple intelligences characteristics. Based on the results of the assessment of XYZ

faculty, a software program should be created that changes the delivery of the training material based on the individual's preferred learning method. For example, this study revealed that 50 % of more of XYZ faculty classified as leaders, embodied as their top domains, intrapersonal, interpersonal, linguistic, and visual/spatial intelligences. Interestingly, 50% or more of XYZ faculty classified as non-leaders embody as their top domains, intrapersonal, interpersonal, and visual/spatial intelligences. Less than 50% of the XYZ faculty classified as non-leaders selected linguistic intelligence statements. Thus, XYZ leadership training programs that blend both individual and team exercises that include role playing, team problem solving, reflecting on their learning, coupled with involving them in conducting interviews and seminars, as well as using the computer and various multi-media for hands on application and development, would prove most useful and effective for XYZ leaders and non-leaders. XYZ faculty learn best by sharing, comparing, and relating with others, seeing and hearing words, as well as working individually with self-paced instruction; thus, it is necessary to use all of these approaches when personalizing leadership training programs to enhance XYZ organizational effectiveness and productivity.

*Recommendation 3: Replicate This Study.* In order to provide additional information that may increase the understanding of leadership competencies, supplementary research needs to be conducted in the business arena and other fields, such as sports, using multiple intelligences as a means to increase self-awareness and self-development of employees. Educational institutions, businesses, sports organizations, and government entities share many common challenges, one being the selection, training, and development of effective leaders. Additional research focusing on the relationship between leadership and multiple intelligences across varied fields may contribute to enhancing individual and organizational effectiveness, and the selection, training, and development of dynamic, future leaders.

### **Inferential And Substantial Aspects Of The Study**

The researcher has examined the relationship between leadership and the domains of multiple intelligences, and suggested viable conclusions, implications, and recommendations derived from the study. This study is not suggesting change for change sake; it is underscoring the notion that effective change will be necessary as organizations strive to remain competitive and survive. It is a fact that each year most organizations are losing millions of dollars due to their current ineffective leadership selection, training, and development processes. This study indicates that organizations, ceasing to waste millions of dollars each year using outdated leadership selection, training, and development processes that have proven to be ineffective, may desire to implement emerging viable approaches to organizational leadership selection, training, and development. These organizations will experience higher organizational productivity. The study also suggests that organizational leadership might rethink the current paradigms that drive their thinking and practice, such that, the approach of intelligence might yield better selection of employees and leaders, and the emerging use of intelligence may create more inclusion in the workplace rather than operate from historical and assumptive parameters.

The theory of multiple intelligences is a viable tool and perhaps the utilization of this emerging tool might enhance organizations' approaches to leadership selection, training, and development. The theory of multiple intelligences, based on years of empirical research, is used widely and successfully in the field of education. Multiple Intelligence tools could also be applied successfully in other fields such as business, government, and sports to ensure that the fit between leaders and jobs is as close as possible.

The researcher senses from the data that the acceptance of multiple intelligence tools within the aforementioned organizations will, to a large degree, be based on the organizations overcoming various barriers. After careful diagnosis of ineffective leadership selection, training, and development processes, the organization must find viable tools to mitigate the problem. One such tool to bring forth a solution to this dilemma is the theory of multiple intelligences. Thus, the first barrier that must be addressed is a clear understanding of the Theory of Multiple Intelligences. Organizations must recognize the benefits using the tool will offer, allowing it to realize its mission, vision, and goals. Granted, it is easy for organizations to rest on their laurels, resist change, and fear the unfamiliar or unknown. However, successful organizations continue to learn, embrace the unknown, and proactively implement new and effective processes that are demonstrated and supported by its leadership. Incorporating multiple intelligence tools successfully can only be accomplished if the organization and its employees are truly convinced that the theory of multiple intelligences, their values and beliefs, and the organization's values are aligned.

In short, the first barrier that must be overcome by organization's to successfully implement the Multiple Intelligences, encompasses clearly understanding the theory of multiple intelligences, believing in its benefits, and for all employees from executive leadership levels to supporting levels of the organization to commit to using multiple intelligences tools to effectively change and enhance the organization's productivity.

The second barrier that must be addressed to successfully implement multiple intelligences by organizations is to develop a viable process plan to implement the organizational changes, allocate resources dedicated to support the multiple intelligences implementation, and effectively communicate the plan and its progress continuously throughout the organization. Incorporating multiple intelligences within the organization is a systemic change that will effect all divisions, departments, and all levels of the organization. Thus, overcoming the second barrier involves developing a clear roadmap to ascertain how multiple intelligence tools will assist to achieve the organization's goals in the short and long term, allocate appropriate resources required to support the multiple intelligences process, and ascertain benchmarks identifying milestones for the multiple intelligences process.

The third barrier that must be addressed after successfully implementing multiple intelligence tools by organizations is to ensure that education and two-way communication regarding the theory of multiple intelligences constantly occurs among its stakeholders. As much as possible, stakeholders should be encouraged to provide their input and any comments they may have regarding the multiple intelligence tools for enhancing organizational effectiveness, and kept abreast of multiple intelligence tool innovations as they unfold. Thus, the third barrier that must be addressed after successfully implementing multiple intelligence tools by organizations is to foster on-going education and encourage feedback from all stakeholders regarding multiple intelligences.

### **Future Research**

Future research should continue to explore the breadth and variety of multiple intelligence constructs, specifically as it pertains to the relationship between leadership and the varying methods through which leaders can use domains of multiple intelligences to inform their thinking, their decision making, their human resource selection choices, and their educational development of their own organizations. The limitations of this study as constructed focused on the utilization of results in an academic environment, at the higher education level. However, future research should be reproduced with other organizations in other fields such as business, sports, and government to include diverse cultures and populations and determine if the results are generalizable. Furthermore, a combination of research approaches, such as scenario-based and performance-based, in addition to using a self-reporting instrument to assess multiple intelligences should be considered for further research.

The unpredicted relationships found in this study also provide an impetus for future research. The relationship between intrapersonal intelligences and age for example should be explored further. "As we age, our intelligences simply become internalized. We continue to think differently from one another, indeed, differences in modes or mental representation are likely to increase throughout active life" (Gardner, 1999, p. 112). This critical issue as stated by Gardner represents in many ways the opportunities for leader development in organizations, governments, and non-profit agencies as the lack of continual change, continual newness, continual thinking defeats the potential of leaders to continually refresh their understanding of leadership in its relationship to organizational performance. Intelligence in its varying forms can significantly reframe organizational performance, organizational strategy, and organizational development. Thus, leaders can empower themselves and others through their focus on intelligence as a criterion for effective choice making.

Additionally, the linkage between multiple intelligences Gardner (1999) suggested are crucial to leaders and gender warrants further study. This study data results suggest that XYZ faculty that are female, white, between the ages of 51 to 60 and currently working full-time in a professional capacity, demonstrate unique learning, problem solving, and decision making skills characterized by leaders more so than other XYZ faculty of a different gender, ethnicity, age, or profession. The data results from this study agree with current literature view, and indicate that men and women prioritize intelligences in a different way. Further study to examine the relationship between the domains of multiple intelligences and gender differences, specifically as it pertains to leadership selection, training, and development should be pursued, and it calls into question a challenge for women faculty to continue

demonstrating their intelligences in those roles traditionally reserved for men. Lastly, further research needs to be conducted that explores the efficacy of multiple intelligences required for different level of leaders within organizations.

## **CONCLUSION**

This quantitative, non-experimental, descriptive correlational study discovered and identified the degree of relationships between the domains of multiple intelligences: (a) interpersonal, (b) intrapersonal, and (c) linguistic intelligences, and (d) leadership and demographic characteristics such as, (a) age, (b) gender and (c) ethnicity among XYZ faculty. Using a survey instrument, primary data was collected from a sample of 205 XYZ faculty within the United States. Furthermore, the researcher examined and analyzed certain aspects of the field of leadership, and the impact Gardner's multiple intelligences may or may not have on leadership selection, training and development based on the results obtained.

There were several conclusions drawn from the study. First, this study confirmed that XYZ faculty classified as leaders embody the domains of multiple intelligences Gardner (1999) suggested are crucial to leaders. These domains of multiple intelligences are interpersonal intelligence, intrapersonal intelligence, and linguistic intelligence. Second, this study solidified the prevailing view that multiple intelligences are present and unique for every individual. The data results for this study indicate that leaders and non-leaders embody similar yet different human intelligences. Third, this study revealed the demographic profiles of XYZ faculty. The data results of this study solidified the notion as discussed in the literature review that individuals are not only different from a demographic perspective such as age, gender, ethnicity, and professions, individuals have unique multiple intelligence characteristics, and this uniqueness is linked to their learning, problem solving, and decision making skills. Fourth, the data results of this study also depict variations of (a) intrapersonal, (b) interpersonal, and (c) linguistic domains of multiple intelligences of XYZ faculty.

There were three recommendations included this study. The first recommendation was to develop a sound leadership selection strategy. The second recommendation was to tailor the leadership development and training programs. The third recommendation was to replicate this study.

The literature review unequivocally supports the notion regarding the significance of effective leadership as the foundation of organizational success, and how effective leadership selection, training, and development is paramount to making organizational success a reality. Current literature also purports that learning organizations of today and tomorrow will require innovative and viable selection, training, and development approaches to attract and retain exceptionally talented and skilled individuals, be it leaders or non-leaders. It is believed that the theory of multiple intelligences is a viable answer that addresses this challenge, and offers solid approaches to enhance human intelligences, and individualized learning that will contribute to organizational success.

The data results indicated variations of the domains of multiple intelligences of XYZ faculty. Interestingly, the data indicated that 50% or more of the leader respondents selected statements on the checklist relating to interpersonal, intrapersonal, linguistic, and visual/spatial intelligences as their top domains, meaning their most prominent domains. Whereas, data results indicated 50% or more of the non-leaders also selected interpersonal, intrapersonal, and visual/spatial intelligences statements, however less than 50% of the non-leaders selected linguistic intelligence statements.

## REFERENCES

1. Anonymous. (1998) Why traditional hiring systems don't work [electronic version]. *Journal of Canadian Manager*, 23 (4), 16-17. Retrieved July 29, 2003, from <http://rdsweb2.rdsinc.com/>
2. Armstrong, T. (1999). *Seven kinds of smart*. New York: Plume & Penguin Putnam, Inc.
3. Armor, D. J. (Ed.). (2003). *Maximizing intelligence*. New Brunswick, NJ: Transaction.
4. Blackburn, R. (Summer 2002). Multiple intelligences and leadership. Retrieved April 6, 2003, from ProQuest Database:
5. Bickman, L., & Rogs, D. J. (1997). *Handbook of applied social research methods*. Thousand Oaks, CA: Sage.
6. Brualdi, A. C. (1996). Multiple intelligences: Gardner's theory. Retrieved December 16, 2002, from ERIC Clearinghouse on Assessment and Evaluation Washington DC Database:
7. Crainer, S., & Dearlove, D. (1999). Death of executive talent [electronic version]. *Journal of Management Review*, 88 (7), 16-23 July. Retrieved July 29, 2003, from <http://rdsweb2.rdsinc.com/>
8. Creswell, J. W. (1994). *Research design*. Thousand Oaks, CA: Sage.
9. Dessler, G. (2001). *Management: Leading people and organizations in the 21<sup>st</sup> century*. (2<sup>nd</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
10. Devlin, S., Jones P, & Martin D. (2002). *Intelligence and success: is it all in the genes?* Mahwah, NJ: Lawrence Erlbaum.
11. Earley, P. C., & Ang S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford, CA: Stanford University Press.
12. Ellis, K. (2003). Making waves: with a leadership crisis on the horizon, organizations are looking within to build talent pools of their own [electronic version]. *Journal of Training*, 40(6), 16, June. Retrieved July 29, Retrieved July 29, 2003, from <http://rdsweb2.rdsinc.com/>
13. Esters, I. G., & Ittenbach, R. F. (1999, June). Contemporary theories and assessments of intelligence: A primer. Retrieved October 20, 2003, from EBSCO Database:
14. Eysenck, H.J. (1998). *A new look intelligence*. New Brunswick, NJ: Transactions Publishers.
15. Fiedler, F. E. (2001). When IQ + experience = performance [electronic version]. *Journal of Leadership and Organizational Development*, 22 (3), 132. Retrieved July 29, 2003, from <http://rdsweb2.rdsinc.com/texis/rds/suite/+smeBljzCwwwFqzvH+s+svvwxFqdlprnD>
16. Fish, J. M. (2002). *Race and intelligence: Separating science from myth*. Mahwah, NJ: Lawrence Erlbaum Associates.
17. Freeman, L. (1999, September). When the boss is the problem. *Credit Union Journal*, 3 (36), 18, 33 September. Retrieved July 29, 2003, from <http://rdsweb2.rdsinc.com/texis/rds/suite/+smeBljzCwwwFqzvH+s+svvwxFqdlprnD>
18. Gall, M. D., Gall, J. P., & Borg, W. R. (Eds.). (2003). *Educational research: An introduction* (7<sup>th</sup> ed.). New York: Pearson Education Inc.
19. Gall, M. D., Gall, J. P., & Borg, W. R. (Eds.). (1996). *Educational research: An introduction* (4<sup>th</sup> ed.). New York: Pearson Education Inc.
20. Gardner, H. (1991). *The unschooled mind: How children think and how schools should teach*. New York: BasicBooks.
21. Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: BasicBooks.
22. Gardner, H. (1983). *Frames of Mind*. New York: BasicBooks.
23. Gardner, H. (1995, September 15). *A cognitive view of leadership*. Retrieved April 6, 2003, from EBSCO Web Site: [http://web15.epnet.com/citation.asp?tb=1&\\_ug=db+0%2C1%2C2%2C3%2C5+In+en%2D](http://web15.epnet.com/citation.asp?tb=1&_ug=db+0%2C1%2C2%2C3%2C5+In+en%2D)
24. Gardner, H. (1999). *Intelligence reframed*. New York, NY: BasicBooks.
25. Hesselbein, F., Goldsmith, M., & Beckhard, R. (1996). *The leader of the future: New visions, strategies, and practices for the next era*. (1<sup>st</sup> ed.). San Francisco, CA: Jossey-Bass.
26. Kline, P. & Saunders, B. (1998). *Ten steps to a learning organization* (2<sup>nd</sup> ed.). Arlington, VA: Great Ocean Publishers.
27. Lebar-Friedman, Inc. (2003). Recruiting execs learn economics of retention at annual conference [Electronic Version]. *Journal of Nation's Restaurant News*, 37 (27): 18, July. Retrieved July 29, 2003 from <http://rdsweb2.rdsinc.com/>.

28. Locke, L.F., Silverman, S.J., & Spirduso, W.W. (1998). *Reading and understanding research*. Thousand Oaks, CA: Sage.
29. Project Summit. (2002, December 16). *Howard gardner: Multiple intelligence theory proponent*. Retrieved December 16, 2002, from <http://www.aenc.org/ABOUT/MI-Gardner.html>.
30. Riggio, R.E., Murphy, S.E. & Pirozzolo, F. (2002). *Multiple intelligences and leadership*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
31. Robbins, S. P. (2001). *Organizational Behavior* (9th ed.). Upper Ruzgis, P. & Grigorenko E.L. (1994). *Cultural meaning systems, intelligence and personality*. New York, NY: Cambridge University Press. Saddle River, NJ: Prentice Hall.
32. Samuda, R.J. (1998). *Psychological testing of American minorities: Issues and consequences*. (2<sup>nd</sup> ed.). Thousand Oaks, CA. Sage Publications.
33. Shahnasarian, M. (1996). *Self-Directed search in business and industry*. Odessa, FL: Psychological Assessment Resources.
34. Sternberg, R. J. (2003). *Wisdom, intelligence, and creativity synthesized*. New York: Cambridge University Press.
35. Sternberg, R.J., Grigorenko, E.L. (2003). *The psychology of abilities, competencies, and expertise*. New York: Cambridge University Press.
36. Sternberg, R.J., & Kaufman, J.C. (2001). *The evolution of intelligence*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
37. Tyrell, B. & Swain, B. (2000). The right stuff [electronic version]. *Journal of Pharmaceutical Executive*, 20 (8), 86-94. Retrieved July 29, 2003, from <http://rdsweb2.rdsinc.com/taxis/rds/suite/+smeBljzCwwwwwwFqzvh+s+svwwwxFqdlprdnD>.
38. Welch, K. C. (2002). *The bell curve and the politics of negrophobia*. Mahwah, NJ: Lawrence Erlbaum Associates.
39. White, S. H. (2000). Conceptual Foundations of IQ Testing. *Psychology, Public Policy and Law*, 6(1), 33-43.
40. Wilson, S. D., (2005). *The relationship between leadership and domains of multiple intelligences*. UMI Microform Num: 3151206. ProQuest Information and Learning Company.
41. Yang, S. Y. & Sternberg, R. J. (1997). Conceptions of intelligence in ancient Chinese philosophy. *Journal Theories of Philosophical Psychology*, 7 (2) 57-69.