A Study of the Development of Leadership Skills of Duquesne University IDPEL Cohort Members as Measured by the Strategic Leadership Selection Interview

Michael A. Latusek

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A STUDY OF THE DEVELOPMENT OF LEADERSHIP SKILLS OF DUQUESNE
UNIVERSITY IDPEL COHORT MEMBERS AS MEASURED BY THE
STRATEGIC LEADERSHIP SELECTION INTERVIEW

A Dissertation
Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Education

By
Michael A. Latusek

August 2009
DUQUESNE UNIVERSITY
SCHOOL OF EDUCATION
INTERDISCIPLINARY DOCTORAL PROGRAM FOR EDUCATIONAL LEADERS

Dissertation

Submitted in Partial Fulfillment of the Requirements
For the Degree of Doctor of Education (Ed.D.)

Presented by:

Michael A. Latusek
B.S., Elementary Education, California State University, 1972
M.A., Education, University of Pittsburgh, 1975

June 29, 2009

A STUDY OF THE DEVELOPMENT OF LEADERSHIP SKILLS OF DUQUESNE UNIVERSITY IDPEL COHORT MEMBERS AS MEASURED BY THE STRATEGIC LEADERSHIP SELECTION INTERVIEW

________________________________________, Chair
James E. Henderson, Ed.D.
Professor of Educational Leadership and
Director, Interdisciplinary Doctoral Program for Educational Leaders
Duquesne University

________________________________________, Member
Wilton L. Barber, Ph.D.
Professor of Educational Administration, Retired
Duquesne University

________________________________________, Member
James Ryland, Ph.D.
Professor of Educational Administration, Retired
Shippensburg University

Program Director
James E. Henderson, Ed.D.
Professor of Educational Leadership and
Director, Interdisciplinary Doctoral Program for Educational Leaders
Duquesne University School of Education
ABSTRACT

A STUDY OF THE DEVELOPMENT OF LEADERSHIP SKILLS OF DUQUESNE UNIVERSITY IDPEL COHORT MEMBERS AS MEASURED BY THE STRATEGIC LEADERSHIP SELECTION INTERVIEW

By

Michael A. Latusek

August 2009

Dissertation supervised by Dr. James E. Henderson

Research in leadership assessment is sparse both quantitatively and qualitatively (Edmunds, 1998). This study was based on the premise that: (1) leadership can be taught and enhanced through training and/or professional development, (2) leadership skills and/or qualities can be assessed, and (3) instruments can be used to assess leadership skills through interview techniques. This quantitative study examined the Duquesne University’s Interdisciplinary Program for Educational Leaders (IDPEL) participants’ increase in knowledge level of leadership skills as defined by the program’s mission statement. Baseline data of the leadership skills development of participants in the IDPEL program was gathered and to show a change of their leadership skills development through their participation in the program as compared to their various leadership roles (role-a-like-experiences) and their ages. The twenty members of the 2009 IDPEL cohort
were invited to participate in the study and nine responded to participate. The Strategic Leadership Selection Interview (SLS) was administered to nine respondents from the 2009 IDPEL cohort. The SLS was previously administered to the 2009 IDPEL cohort of Duquesne University prior to their admission to the program in 2005 as a pre-assessment of their leadership skills and these scores were used as baseline data for the participants. The role-a-like positions for the participants were categorized into one of two groups, middle-level-management or upper-level-management. The participants were also categorized in one of two age groups (equal to or less than 40 and greater than 40). A causal-comparative research analysis was to be conducted. Causal-comparative research, which is a type of non-experimental investigation, searches for cause-effect relationships by forming groups of individuals in whom the independent variable is present, absent, or present at various levels. The numerical relationship of the subgroups resulted in a two-by-two matrix, which manifested two cell-sizes of zero. This analysis obviated the need to abandon the two-way analysis of variance. Given this circumstance it was determined that the statistical process should be limited to one of a descriptive nature yielding exploratory, rather than inferential conclusions. In order to test the relationship between assessment scores (both pre- and post assessments) and the groups determined by age, biserial correlations were calculated. The results, although limited by a small sample size, suggest the effectiveness in the IDPEL program in developing leadership skills in its participants.
ACKNOWLEDGEMENT

A special thank you to my committee, Dr. James Henderson, Dr. Wilton Barber, and Dr. James Ryland with the support of the qualitative Dr. Vonnie Ryland. Their help, guidance, patience and support through out this process was truly a blessing. Also, thank you to the IDPEL cohort members for their encouragement, support and cooperation especially Dr. Beverly Long. The process of the road to the doctorate has been inspired by Dr. Helen Sobehart and I thank her for her support and inspiration along with the people that help keep us together daily to keep the process moving Darlene Miller, Melanie Simile and Nora Kelley.

Finally a very special thank you to all my family and friends for giving me support, strength and encouragement and inspiring me to complete the journey.
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CHAPTER 1

INTRODUCTION

Central Theme

Of all the educational leadership positions that have evolved since the *A Nation at Risk* report was issued over two decades ago, none have changed as dramatically as that of the school building principal. While Petzko et al (2002) suggested that increased roadblocks to career advancement and job satisfaction make it difficult to attract qualified candidates to the principalship Walker et al (2003) found no shortage of potential principals. They expressed concern, however, about the quality of leadership and questioned the adequacy of the structures and cultures within which principals work and are trained and as Davis (2004) cites the principal’s role of educational leadership role is tied to the educational leadership role of the superintendent:

Richard Wallace (1996), former Superintendent of Pittsburgh City Schools in Western Pennsylvania, identified school leaders as those responsible for improving schools from within. Wallace characterized the role of the superintendent as being a visionary leader who is guided by a clear vision of excellence, who organizes human and financial resources to pursue excellence, who seeks commitments of the community’s stakeholders to support the agenda for excellence, and who empowers those in the district to create, implement, and evaluate the agenda for excellence. Wallace’s definition of the role of superintendent fits with Schwahn and Spady’s (2001) concepts of visionary, cultural, and capacity leadership domains.

Wallace (1996) acknowledged that the work of improving education
happens school by school. School improvement hinges on developing the role of the school principal as educational leader. According to Wallace, superintendents must evaluate principals insofar as they are instructional leaders who work to achieve educational excellence and who focus on the professional development of teachers. For Wallace, principals as educational leaders are responsible for student achievement by making sure that the proper conditions exist to support teaching and learning. (Davis, 2004, p. 34)

Elmore (2000) claims that schools are improved when the technical core of education is strengthened. With this strong technical core, educators become accountable for the quality of their practice and the level of student performance. Elmore (2000) identifies the educational leadership responsibilities and roles of the superintendent and central office support personnel compared to the responsibilities and roles of building level support personnel and principals as they relate to their educational leadership roles in developing this strong core for improving schools and student performance within schools (Elmore, 2000). Elmore’s conceptualization of these leadership roles and functions are identified in Table 1.
Table 1

Elmore’s Conceptualization of Superintendent and Principal Leadership Roles and Functions

<table>
<thead>
<tr>
<th>LEADERSHIP ROLES</th>
<th>LEADERSHIP FUNCTIONS</th>
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<tr>
<td>SYSTEM</td>
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<tr>
<td>Superintendent</td>
<td>• Design system improvement strategies</td>
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<td></td>
<td>• Design, implement incentive structures for schools, principals, teachers</td>
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<td>• Recruit, evaluate principals</td>
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<td>• Provide professional development consistent with improvement strategy</td>
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<td>• Allocate system resources toward instruction</td>
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<td></td>
<td>• Buffer non-instructional issues from principals, teachers</td>
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<tr>
<td>SCHOOL</td>
<td></td>
</tr>
<tr>
<td>Principal</td>
<td>• Design school improvement strategies</td>
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<tr>
<td></td>
<td>• Implement incentive structures for teachers, support personnel</td>
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<td></td>
<td>• Recruit, evaluate teachers</td>
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<td>• Broker professional development consistent with improvement strategy</td>
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<td>• Allocate school resources toward instruction</td>
</tr>
<tr>
<td></td>
<td>• Buffer non-instructional issues from teachers (Elmore, 2000, p. 22)</td>
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</table>
Rooted in the guiding tenets of *A Nation at Risk* (The National Commission on Excellence in Education, 1983) report, the *No Child Left Behind* Act of 2001 (U.S. Department of Education, 2002) has clearly helped to define the structure and culture of public education by providing greater control and flexibility while requiring the employment of scientifically proven teaching methods in an atmosphere of far greater accountability. School districts and schools that do not make sufficient yearly progress toward state proficiency goals for their students will first be targeted for assistance and then be subject to corrective action and ultimately restructuring which may include: (1) decreasing management authority at the school level, (2) appointing an outside expert to advise the school, (3) extending the school day or year, or (4) reorganizing the school internally.

Whether the issue is lack of educators entering the superintendent or principal ranks or the quality of the candidates who seek to lead, one thing is certain—the mantle of accountability that has blanketed public education as a result of the *No Child Left Behind* legislation has made it imperative for districts to find a reliable, comprehensive method for selecting quality educational leaders.

Given the necessity for districts to select highly qualified, effective educational leaders from within a diminishing pool of potential candidates, a screening process that reliably identifies leadership potential is needed. A variety of organizations—business, industry, military, and education—have developed assessments to identify the core competencies critical for effective leadership.

In a report from the Wallace Foundation (2006) on leadership in education, it stresses the need for high-quality leadership in education, that leadership influences
student learning, and that leadership in schools is only second to classroom instruction in contributing to student success. It also cites numerous initiatives taken by states, school districts, and universities to improve principal and superintendent leadership development programs. Iowa recently instituted a new review process for accreditation and approval of leadership training programs bases on Iowa’s Standards for School Leaders and only five of nine existing programs were approved. The report stresses the need for improved administrative leadership training programs and cites the Interstate School Leaders Licensing Consortium (ISLLC) standards as the basis for many administrator preparation programs setting a common expectations for school leaders. Over 40 states have adopted the ISLLC standards as basis for leadership programs. Improved leadership programs for principals and superintendents are a catalyst to sustained, widespread student gains in achievement (Wallace Foundation, 2006, p. 2).

Statement of the Problem

This study examined the extent to which the Duquesne University’s Interdisciplinary Program for Educational Leaders (IDPEL) increases the participants’ knowledge level of leadership skills as defined by its mission. The Mission of the Duquesne University Interdisciplinary Doctoral Program for Educational Leaders (IDPEL) is to develop educators who have the vision, the commitment to research and achievement, and the skills to move the American educational system to prominence in tomorrow’s world. This will be accomplished through an innovative partnership program linking competence and the learner, university faculty, practicing educational administrators, and community leaders. (Duquesne University, 2004, p. 5)
Inherent in the program are basic tenets based on the belief that:

1. Leadership skills can be developed,
2. Educational leadership must be grounded in ethics and moral values,
3. Cohort grouping provides for cooperative learning and an ongoing support system,
4. A competency-based approach is most appropriate in an adult learning environment, and that
5. A direct relationship exists between demonstrated competency and future behavior. (Duquesne University, 2004, p. 4)

IDPEL’s goals and objectives are closely aligned with the knowledge and skill areas of the American Association of School Administrators (AASA). Hallmarks of the program include its practicum experiences and competency checklist. The competency checklist is referenced in the National Council for Accreditation of Teacher Education (NCATE), as well as the Interstate School Licensure Consortium (ISLIC), the Educational Leadership Constituent Council (ELCC), and the Pennsylvania Department of Education (PDE).

Diller’s (2005) dissertation demonstrated the effectiveness of the IDPEL program through the assessment of participant’s perceptions of their perception of effectiveness of the program in developing their leadership skills in a quantitative/qualitative study. Diller (2005) administered the Leadership Practices Inventory - Observer Inventory to IDPEL participants to assess the effectiveness of the program by assessing their perceptions of the program’s effectiveness in order to assess the participants’ leadership behaviors. Based on an analysis of the results of the use of the inventory he found no
statistically significant quantitative changes in their leadership behaviors. However, in semi-structured interviews, using qualitative data, these same participants reported that, “the program contributed to their development of leadership skills and to their confidence that they could make a difference in their school and school districts” (Diller, 2005, p. 74). Believing this to be so, this study proposes to substantiate the effectiveness of IDPEL in the development of leadership skills in its participants through a quantitative study by assessing the leadership skills development of IDPEL participant’s.

Significance of the Problem

This quantitative study gathered quantitative baseline data of the leadership skills development of participants in the IDPEL program to show a change of their leadership skills development through their participation in the program as compared to their various leadership roles (role-a-like-experiences) and their ages. This study was based on the premise that: (1) leadership can be taught and enhanced through training and/or professional development, (2) leadership skills and/or qualities can be assessed, and (3) instruments can be used to assess leadership skills through interview techniques.

Research in leadership assessment is sparse both quantitatively and qualitatively (Edmunds, 1998). In a report prepared for the Wallace Foundation for a grant to study leadership assessment, the researchers exploring the literature of empirical studies on leadership for learning stated that there is not a rich trove of empirical work and the majority that exists is qualitative in nature and generally focused on a single leader or small group of leaders (Murphy, Elliot, Goldring, & Porter, 2007).

Between 1990 and 1998 the W.K. Kellogg Foundation funded 31 projects which focused on leadership development in college students based on the belief that society
needs more and better leaders, effective leadership skills can be taught, and that the college environment is a strategic setting for learning these skills and theories (Zimmer-Oster & Burkhardt, 2000). Also in 1996 the Center of Leadership in School Reform (CLSR) was invited to respond to a request for a proposal from Bell-South Foundation to help build and sustain viable education leadership in the South through strengthening the superintendency (Kronley & Handley, 2001). Numerous universities and organizations have worked to create effective educational programs to develop administrators with effective leadership skills to lead our nation’s schools in the 21st century since the Nation at Risk Report and the passage of the No Child Left Behind Legislation.

A variety of educational leadership development programs have been developed across the United States by a number of universities based on the ISLLC unified national standards for administrative practice for the preparation of principals, superintendents, curriculum directors, and supervisors to develop their leadership skills. These programs differ from the more traditional programs and are all cohort programs with approximately 20 to 25 students. Jackson and Kelley (2002) prepared the article, ‘Exceptional Programs in Educational Leadership,’ for the National Commission for the Advancement of Educational Leadership Preparation. They identified the following programs as exceptional and innovative, along with how the programs are assessed or evaluated based on their effectiveness in strengthening 21st century leadership skills in school level administrators and district level administrators. The University of Washington Danforth Education Leadership Program (Jackson & Kelley, 2002) requires its participants to develop a leadership platform statement to synthesize their program experiences as an assessment to document the development of their leadership skills. The East Tennessee
State University program (Jackson & Kelley, 2002) requires students in the program to develop a master’s capstone portfolio and complete a leaders’ licensure assessment. The California State University, Fresno, has a two-tier program. Students in both tiers of the program are required to develop portfolios, engage in exit interviews at the end of each semester, use job performance evaluations, and take the NAESP Professional Development Inventory as assessments, which are all used as data to design their individual professional development growth plans. The University of Louisville (Jackson & Kelley, 2002) IDEAS program uses the NASSP Individual Development Program assessments to identify student learning needs and to shape their individual academic programs related to the ISLLC standards and requires students to develop portfolios of their work, demonstrating competency in the ISLLC standards. The Wichita State University program (Jackson & Kelley, 2002) is a research-based program that uses a group assessment of research projects and an individual leadership performance assessment system developed by the faculty. The San Antonio Region 20 Service Center Program requires graduates to pass the Texas state ISLLC-based licensure assessment (Jackson & Kelley, 2002). California State University’s educational leadership programs (Gonzales & Storms, 2006) were developed to meet the growing need for competent school administrators by forming partnerships with local school districts. The partnerships were focused on developing leaders who would exhibit bold, socially responsible leadership that would change the world of schooling within each district. As a measure of successful participation in the program, participants are to demonstrate successful leadership skills identified and needed by their district. District officials would provide periodic reports on the programs effectiveness by collecting data from
year-end-surveys from students, fieldwork supervisors, instructors, and other district administrators (Gonzales & Storms, 2006).

The “Educating School Leaders” report by Levine (2005) asked how well do the current leadership programs educate leaders for today’s jobs and today’s schools. The report examined leadership programs and their capacity to educate school leaders in the skills and knowledge to lead today’s schools and school systems using a nine-point template for judging the quality of school leadership programs, which are commonly used in program evaluations in higher education:

1. The program’s purpose and goals reflect the today’s leaders.
2. Curricular coherence that mirrors the program’s purposes and goals.
3. Curricular balance that integrates theory and practice of leadership.
4. Faculty composition with a balance that includes academics and practitioners expert in school leadership.
5. Admissions criteria to recruit students with the capacity and motivation to become successful school leaders
6. Appropriate degrees are awarded with high graduation standards.
7. Research carried out in the program is of high quality, driven by practice and useful.
8. Financial resources are adequate to support the program.
9. And, the program engages in continuing self-assessment and improvement of its performance. (Levine, 2005, p. 13)

“The Educating School Leaders report confirmed much of what school leaders have said for decades, that many university preparation programs fall woefully short.
Many programs simply do not teach what it takes to run a school district” (Ferrandino, Houston, & Tirozzi, 2005, p. 1). The National Council for the Accreditation of Teacher Education (NCATE) and the Interstate School Leadership Licensure Consortium (ISLLC) identified a unified set of national standards for administrative practice for the preparation of school leaders in the spring of 2002. The merged NCATE/ISLLC standards provide a vehicle for professional discourse about the knowledge, skills, and dispositions needed for effective school leadership and provide a link to the development of authentic measures of assessments with a close connection between licensure standards and effective leadership (Jackson & Kelley, 2002).

Duquesne University’s IDPEL program also requires its program participants to complete the NCATE/ISLLC standards checklist along with a portfolio to document their attainment of each standard on the checklist and to present an oral overview of their attainment of the standards to a group of their cohort members and IDPEL program faculty representatives at the conclusion of their course work. This assessment is similar to the types of assessments used by the university leadership programs mentioned earlier. This study proposes to use quantitative data to support the belief that the IDPEL program does foster and develop leadership skills in its participants by using the Strategic Leadership Selection Interview (SLS) as a pre and post assessment.

Dr. Charles Schwahn developed the Strategic Leadership Selection Interview (SLS) and validated by Duquesne University’s Leadership Institute. The Leadership Institute in conjunction with the PLDC is currently using the instrument to initiate professional development for leaders in the schools of the Commonwealth of Pennsylvania. The SLS follows the format of the Gallup Perceivers developed by
Selection Research, Inc. in the 1970’s, which was later acquired by the Gallup Organization in 1988 and is known today as the Gallup’s Teacher Perceiver System. The teacher perceiver was designed and developed as a face-to-face interview in which the interviewer asks the interviewee to respond to open-ended prompts directly related to overarching themes drawn from research identifying the characteristics of teachers most successful at working with students. People work best from their strengths and talents, from what they do well. Talents are innate, life themes that dominate a person’s behavior. In searching for talented people, an open-ended interview allows a person’s strengths, values, and beliefs to emerge, which is one way to assess the presence of a theme or talent in a person (Clifton & Nelson, 1992). The Teacher Perceiver Interview (TPI) “is the most widely used selection system, with three decades of studies containing similar enough data to allow synthesis” (Metzger & Wu, 2008, p. 921).

The Gallup Organization (1993) developed open-ended, structured interviews, called Perceivers, to use as tools in assessing the talents or strengths of candidates for employment. Each Perceiver Interview is specific to a particular position, such as the Principal or Leader Perceiver, the Teacher Perceiver, the Support Service Perceiver, and so on. One of the characteristics of a great place to work is that employees get to do what they do best every day (Clifton & Nelson, 1992). Each Perceiver Interview contains questions, which pertain to behaviors that excellent employees exhibit in a specific job.

The SLS captures the current literature on educational leadership (Davis, 2004). Davis also cited support for Schwahn’s conceptualization of strategic leadership in empirical research on leadership in effective schools. According to Schwahn and Spady (2001), strategic leadership is the leadership necessary to make purposeful, positive
change in organizations. Their theoretical model consists of five leadership domains: authentic, visionary, cultural, quality, and service leadership. Strategic Leadership can be defined as the kind of leadership necessary to bring about successful, purposeful change in schools.

Schwahn (1996) developed the SLS to assess the extent to which the leadership domains of authenticity, vision, culture, quality, and service are present within a leader. The SLS was originally composed of a total of 60 open-ended questions, six in each of the ten leadership dimensions. The instrument was revised in 2003 and is currently composed of a total of 50 open-ended questions, five questions in each of ten leadership dimensions. The questions are based upon Schwahn’s understanding of the theoretical concepts found in the current literature on leadership. Davis’s (2004) study suggested that Schwahn’s SLS assesses strategic leadership in ways that have meaning for the professional growth and development of school leaders. It has proven to be valid in assessing professional development needs of school leaders and distinguishing the skill levels of school leaders as strategic leaders on a continuum ranging from emerging to mature leaders.
Research Questions

The overarching question of this study was, does the IDPEL program foster and develop leadership dimensions and skills in cohort members as measured by the SLS on a continuum between emerging and mature school leaders? Specific research questions were:

1. Does the IDPEL program foster and develop the leadership dimensions and skills as measured by the SLS on a continuum between emerging and mature school leaders for cohort members based on their different role-alike experiences?

2. Does the IDPEL program foster and develop the leadership dimensions and skills as measured by the SLS on a continuum between emerging and mature school leaders for cohort members based on their various ages?

In order to inform each facet of the problem facing this and every other school district in the nation—the limited pool of qualified educational leadership candidates, the quality of leadership needed to effectively run today’s schools and school districts, and the culture in which educational leaders must work and be trained—and to validate the need for a reliable method for selecting quality educational leaders, three bodies of literature were examined. Table 2 illustrates how each body of literature informed some aspect of the problem and/or solution and introduces the terms that framed this study.
## Table 2

Bodies of Literature That Frame the Problem and Inform the Solution

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<thead>
<tr>
<th>Bodies of Literature</th>
<th>Problem</th>
<th>Solution</th>
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<tbody>
<tr>
<td><strong>Leadership Training</strong></td>
<td>Quality of Leadership</td>
<td>Culture in Which Educational Leaders Work and are Trained</td>
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<tr>
<td></td>
<td>• Need to identify attributes of quality leadership</td>
<td>• No Child Left Behind has magnified need</td>
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<td></td>
<td>• Many university training programs fall short</td>
<td>• Understand the centrality of cultural politics to schools as organizations</td>
</tr>
<tr>
<td><strong>Creating a Culture of Change</strong></td>
<td>Critical factor for effective schools—Educational Leaders’ leadership capacity</td>
<td>Quality leaders initiate change</td>
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<tr>
<td></td>
<td></td>
<td>• Quality leaders get results</td>
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<td></td>
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<td>• Key competencies include:</td>
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<td></td>
<td>o Engagement</td>
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<td><strong>Selection of Quality Educational Leaders</strong></td>
<td>Performance Domains</td>
<td>Department of Education Administrative Certification requirements</td>
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Definition of Terms

**Cohort** – A group of students enrolled in the IDPEL program sharing a common sequence of classes and experiences (Diller, 2004).

**IDPEL** – Duquesne University’s Interdisciplinary Doctoral Program for Educational Leaders, a four-year, sixty-semester hour cohort program culminating in the Doctor of Education (Ed. D.) degree. Cohorts were formed for the program at Duquesne University in Pittsburgh, Pennsylvania, at Shippensburg University, Pennsylvania and at Mercyhurst College, Erie, Pennsylvania.

**Emerging School Leaders** – a leadership classification of a leader that inconsistently demonstrated skills of encouraging innovation, planning and implementing strategic change, serving the needs of diverse constituents, acquiring and interpreting key information, resisting premature judgments, resolving complex problems, communicating expectations, developing and empowering others, balancing complex demands, understanding personal strengths and acquiring new learnings (Davis, 2004, p. 49).

**Foster** – to promote the growth or development of (Merriman-Webster, 1984, p. 487). Encouraging and/or providing opportunities for growth to a desired end, in the context of the IDPEL program it is engagement of students through the various aspects of the program that provide opportunities for students to develop and enhance their leadership skills.

**Develop** – to expand by a process of growth (Merriman-Webster, 1984, p. 347). Through participation in the IDPEL program students a subjected to training opportunities that expand the level of their leadership skills from the emerging to the mature level.
Mature School leaders - a leadership classification of a leader that consistently demonstrated skills of encouraging innovation, planning and implementing strategic change, serving the needs of diverse constituents, acquiring and interpreting key information, resisting premature judgments, resolving complex problems, communicating expectations, developing and empowering others, balancing complex demands, understanding personal strengths and acquiring new learnings (Davis, 2004, p. 49).

Middle Level Management - a position where the administrator or manager supervises others that do not supervise others

Leadership – the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organizations of which they are members (House, 2005).

Upper Level Management - a supervisory position where the administrator or manager supervises others that supervise others he or she will be classified as upper-level-management.

Limitations of the Study

A limitation of this study was that only one cohort of students from the IDPEL program was involved in the study and this study does not contain longitudinal data. Another limitation is that a limited number of the 2009 IDPEL cohort participated in the study.
CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

This study was based on the premise that: (1) leadership skills necessary for leaders to develop and possess to effectively lead schools into the 21st century can be taught and enhanced through training and/or professional development, (2) leadership skills and/or qualities can be assessed, and (3) instruments can be used to assess leadership skills of participants in leadership programs through interview techniques.

The purpose of this chapter is to review the current literature related to education leadership, leadership programs and how current educational literature relates to the concepts assessed by Schwahn’s Strategic Leadership Selection (SLS) Interview (Schwahn, 2003). As illustrated in Table 2, each body of literature informed some aspect of the problem and/or solution and identified the key concepts that frame this study. This chapter will also summarize the impact of recent educational leadership literature on the focus of educational leadership programs in developing leadership skills in their participants and the correlation of those skills to the ten dimensions of the Schwahn’s SLS Interview. This chapter will describe how the 21st century leadership skills are integrated into the Interdisciplinary Doctoral Program for Educational Leaders (IDPEL) at Duquesne University and that Schwahn’s SLS Interview can be used to assess the effectiveness of the IDPEL program in developing these leadership skills in its participants.
Leadership Training

Whether the issue is lack of educators entering the principal ranks or the quality of the candidates who seek to lead, one thing is certain—that all leadership preparation programs must produce exemplary instructional leaders (Hale & Moorman, 2003). The No Child Left Behind legislation has made it imperative for districts to find a reliable, comprehensive method for selecting quality educational leaders for the challenges of the 21st century (Hale & Moorman, 2003).

In the early 1990’s the U.S. Department of Education funded a number of leadership programs. The Maine Academy for School Leaders was one of the programs funded as an innovative leadership development program. In a study of the program Donaldson, Barnes, Marnik, and Martin (1993) report the program focused on making connections between leaders’ learning, their behaviors on the job, and student outcomes. There were 66 practicing and prospective leaders chosen to participate in the program from 170 applicants. It was structured around three phases: (1) each member was asked to assess the leadership needs of his/her environment and assess his/her readiness to respond to those needs, (2) each member created leadership development plans which identified goals and action plans to change their own leadership behavior in school, and (3) each member put their plans into action and summarized the results of their leadership learning experiences. In summary the program made the participants stewards of their own learning and student outcomes. The developers of the program stated that they have only begun to understand how leaders develop and how leaders’ development affects their leadership behavior through the use of individually leadership development plans.
Many educational leadership programs evaluations are based on self-reported data from participants in the programs; students, administrators and program faculty. In a study published by the Stanford Educational Leadership Institute (2007), on how exemplary preparation and professional development programs develop strong school leaders the basis of the evaluations are derived from self-reported data (Darling-Hammond, LaPointe, Meyerson, & Orr, 2007). The study sought to determine if some programs more reliable in producing strong school leaders and, if so, why and how. The study concluded that exemplary programs that produce well prepared leaders that engage in practices associated with school success focused on developing the following leadership skills: (a) cultivating a shared vision and practice, (b) leading instructional improvement, (c) developing organizational capacity, and (d) managing change (Darling-Hammond, LaPointe, Meyerson, & Orr, 2007, p. 9).

In 1992 the National Center for Research in Vocational Education issued a report on ten leadership development projects at colleges and universities designed to improve the leadership attributes of graduate students conducted by the University of Minnesota. The evaluation of each leadership development program was guided by nine questions. Three of the questions focused on a description of the program, the participants, and cost of the program. Four questions addressed program outcomes, participant satisfaction, participant’s ability to behave and perform as leaders, perceived change in leadership attributes of participants and their institutional impact. Another question focused on the evaluation of the relationships between specific program activities and changes in leaders attributes. The final question focused recommendations for program improvement Qualitative data was collected about pre-program participants’ attributes and post-
program participants’ attributes and their perceptions about the effectiveness of the program. The Leader Attributes Inventory Instrument was used as the pre and post assessment for assessing leadership development in the participants based on the National Center for Research’s conceptualization of leadership and leadership development. The study found there was a high degree of correlations between 6 of the 37 attributes assessed and perceptions of leader effectiveness which include: (1) motivating others, (2) team building, (3) adaptable, open to change, flexible, (4) information gathering and managing information, (5) willing to accept responsibility, and (6) insightful (Moss, Jensrud, & Johansen, 1992).

Similarly, the transformation of the educational leadership program at Miami University began by the development of guiding principles, which included:

1. The field of educational leadership must be reconstructed so that the transformation of schools becomes its central focus.
2. The primary goal of public schools is to educate children for the responsibilities of citizenship in a democracy.
3. School leadership is an intellectual, moral, and craft practice.
4. Educational practice must be informed by critical reflection.
5. Schools are sites of cultural politics.
6. Leadership should not be equated with positions in a bureaucracy.
7. Diversity is not only a positive good; it is a necessary element of education.
8. A graduate program should be a “program,” not a series of disparate courses.
9. Faculty and students must make a commitment to community.
10. While a primary focus of our department is on schooling at all levels,
education should be considered broader than schooling. (Moss, Jensrud, & Johansen, 1992, p. 317)

Senge (2000) suggests that having developed a set of guiding principles enables the program to focus its conversation as a community around some living ideas.

Since 1991 the Southern Regional Education Board (SREB) developed the Leadership Academy with the belief that, “leadership is not something that happens at conception but it is developed and can be taught” (Crews & Weakley, 1996, p. 6). Teams of teachers, assistant principals, principals, central office administrators, and superintendents were selected to attend three day training sessions each year over a period of four years. They were administered a computer based assessment at the beginning of the program and were required to set personal leadership goals and document their personal professional progress on their goals based on their baseline assessment in personal journals throughout the program. The SREB model focused on 4 strategies for helping educators become good leaders: (a) train change agent leaders to work in teams to solve real world problems in education, (b) team member are trained to use their benchmark assessments to develop their personal plan to engage in an overt plan for personal improvement, (c) coaching and mentoring with peer coaches for each other on their team as they share their personal improvement plans with each other, and (d) building human service collaboratives for school improvement (Crews & Weakey, 1996).

Similarly in 1994 the University of Texas and Texas A&M University developed leadership programs that used portfolio assessments to assess their participants leadership skill development throughout the program. The programs used the 21 performance domains identified by the National Policy Board for Educational Administration as the
framework for the portfolios. Upon completion of the program the students meet with
the Program Review Committee for a summative assessment of his/her progress of
acquiring the leaderships skills identified by the 21 performance domains and
demonstration of attainment of the skills by the documentation they provided in their
portfolios (Erlandson & Wilmore, 1995).

Creating a Culture of Change

What is generally accepted is that the result of leadership is change, what Starratt
succinctly as: leaders initiate change, and leaders get results. According to ISLLC, the
results of leadership in schools are measured by the improvement in student learning and
the quality of teaching. The Duquesne IDPEL program standards were specifically based
on the ISLLC standards, the premise for measuring the development of aspiring
administrators. In 2002, the ISLLC standards were merged with standards developed by
the National Policy Board for Educational Administration (NPBEA) and the National
Commission on the Accreditation of Teacher Education Programs (NCATE). In 2004,
Duquesne’s admission to the University Council on Educational Administration validated
that use of the unified standards as were published by NPBEA (National Policy Board for
Educational Administration, 2002).

Although Senge (2000) drew many correlations between schools and businesses
as learning organizations, he acknowledged that there existed distinctive features of
schools that make sustained change more challenging than in business. He identified four
key competencies that exist in a culture in which people are able to lead without having
to control:
1. Engagement—the capability to recognize an issue or situation that has no clear definition, no simple “cause” and no obvious answer and when faced with such complexity, convening the appropriate people in the system and facilitating the conversations and learning that is called for

2. Systems thinking—the ability to recognize the hidden dynamics of complex systems and to find leverage

3. Leading learning—the ability to model a “learner centered,” as opposed to an “authority-centered,” approach to all problems

4. Self-awareness—the capacity to know the impact leaders are having on people and the system and how that impact has changed over time. (Senge, 2000, pp. 414-418)

“Are today’s administrators prepared to be the instructional leaders that are required to bring about student achievement?” (Barnett, 2004, p. 122) To answer this question Barnett (2004) interviewed practicing school leaders on their preparedness as a school leader related to the ISLLC standards and the effectiveness of their training programs related to the ISLLC standards. The administrators were divided into two groups, Moorehead State University graduates and non-Moorehead State University graduates. He summarized that leadership programs must go through a systematic overhaul with less emphasis on management and more emphasis on instructional leadership challenges, programs must change as the challenges of today’s school leaders change and university programs must recognize the direct impact they have on student achievement for students of the leaders they train (Barnett, 2004).
Selection of Quality Educational Leaders

Given the necessity for districts to select highly qualified, effective school leaders from within a diminishing pool of potential candidates, a screening process that reliably identifies leadership potential is needed. The literature does not reveal a uniform set of specific abilities or knowledge, a definitive inventory, which leaders-to-be might use to signal arrival or attainment (Diller, 2004). However Davis’s research concluded that Schwahn’s Strategic Leadership (SLS) Interview could justifiably be used to assess the professional development needs of school leaders and that the instrument does distinguish the skill levels of school leaders between emerging leaders and mature leaders by using performance profiles to identify areas of need for each leader for professional development.

Gallup claims the overarching themes of the Teacher Perceiver Interview (TPI) was developed from the 12 themes they identified from research as the characteristics of teachers that are most successful at working with students are:

1. Mission – The teacher’s goal is to make a significant contribution to student growth.
2. Empathy – The teacher responds to the individual student’s feelings and thoughts.
3. Rapport Drive – The teacher likes students and promotes warm, accepting relationships.
4. Individualized Perception – The teacher considers the interests and needs of each student.
5. Listening – The teacher listens to students’ feelings with responsiveness and
acceptance.

6. Investment – Teacher satisfaction comes from the learners’ response, not the teacher performance.

7. Input Drive – The teacher searches for new ideas and experiences to share with students.

8. Activation – The teacher motivates students to think, respond, and feel in order to learn.

9. Innovation – The teacher is determined to implement creative new ideas and techniques.

10. Gestalt – The teacher tends toward perfection but works from individual to structure.

11. Objectivity – The teacher responds to the total situation rather than reacting impulsively.

12. Focus – The teacher models the goals and selects activities in terms of these goals (Young & Delli, 2002).

Similarly the SLS was developed by Schwahn based on the following 15 performance roles of a total leader identified from current research on 21st century leadership skills by Schwahn and Spady (2002):

1. Creating and sustaining a compelling personal and organizational purpose.

2. Being the lead learner.

3. Modeling core organizational values and personal principles.

4. Defining and pursuing a preferred organizational future.

5. Consistently employing a client focus.
7. Involving everyone in productive change.
8. Developing a change friendly-culture of innovation, healthy relationships, quality and success.
9. Creating meaning for everyone.
10. Developing and empowering everyone.
11. Improving the organization’s performance standards and results.
13. Supporting and managing the organization’s purpose and vision.
14. Restructuring to achieve intended results.
15. Rewarding positive contributions to productive change. (Schwahn & Spady, 2002, p. 58)

Similar to the twelve basic research based themes underlying the development of the TPI developed by the Gallup Organization to select teachers and identify future professional development needs, Schwann and Spady (2002) identified fifteen overarching themes and summarized them into five “performance domains” of “total leaders” that compromise the leadership functions that are most commonly expressed in the literature for 21st century leadership skills and form the basis for the SLS.

1. Authentic Leadership Domain: To establish or clarify the fundamental purpose and values of the organization. Hoy and Miskel (1996) describe this as the extent to which teachers describe their principals as accepting responsibility for their own actions, as being non-manipulating and as demonstrating a salience of self over role. Senge describes it as not being an
authoritarian leader but as a leader that helps everyone in the organization to gain a more insightful view of the current reality of the organization (Senge, 1994).

2. Visionary Leadership Domain: To create possibilities by focusing the organization on a preferred future. Bennis and Nanus (1997) describe this as leaders having the ability to be architects and cheerleaders for change who are able to point to new destinations that are so desirable and credible that workers enthusiastically buy into it and help make it happen. They cite vision; passion, integrity, self-knowledge, empowerment and doing things right as the time test characteristics of leaders to move organizations in a particular direction.

3. Cultural Leadership Domain: To develop meaning and ownership for everyone in the organization for innovation and quality throughout. Bolman and Deal (1981) describe this as a leader’s responsibility to build organizations that produce harmony between the needs of the individual and the needs of the organization and when they do both the organization and the employees will benefit. O’Toole characterize leaders achieving this cultural leadership through building trust that emanates from leadership based on shared purpose, shared vision, and shared values (O’Toole, 1995).

4. Quality Leadership Domain: To build continuous improvement capacities and strategies throughout the organization. Deming (1986) summarizes it as to create a constancy of purpose for improvement for an organization by taking on leadership for change, constantly improving for quality and that
transformation is everybody’s job. Fullan explains that in operational terms the continuous improvement model developed by Demming is both bottom-up and top-down for everyone one in the organization to embrace change for the purpose of constantly improving quality (Fullan, 1994).

5. Service Leadership Domain: To support empowered workers to accomplish the purpose and vision of the organization. Greenleaf describes as the people being the institution and when people experience growth, motivation becomes what people generate for themselves that provides the strong focus of purpose that builds the dynamic strength in the many (Greenleaf, 1977).

Different names and variations of these categories are used in the leadership literature. The Pennsylvania Leadership Development Center chose the Total Leaders Framework to provide strategic leadership development for educational leaders in Pennsylvania through a series of training modules. These training modules were developed by focusing on the five domains of leadership as identified by Schwahn and Spady: authentic, visionary, cultural, quality, and service. The modules are also cross-referenced to the ISSLC standards, which also form the basis of Duquesne University’s IDPEL program. These professional training modules based on Schwahn and Spady’s conceptualization of leadership in Total Leaders are correlated to the leadership dimensions assessed by the SLS:

1. **Authentic Leadership - Creating a consensus around a compelling, future-focused organizational purpose**

2. **Authentic Leadership – Being the lead learner and creating a learning organization**
3. Authentic Leadership – Modeling the organization’s purpose, values and principles
4. Visionary Leadership – Employing win-win strategies with customers and clients
5. Cultural Leadership – Creating a culture of innovation, cooperation, quality and success
6. Cultural Leadership – Creating a change-friendly, continuous improvement mind set
7. Cultural Leadership – Creating meaning and ownership around organizational purpose, values and vision
8. Quality Leadership – Developing and empowering everyone in the organization
9. Quality Leadership – Creating feedback loops for continuous improvement and accountability
10. Service Leadership – Managing toward an organizational purpose, values and vision. (Schwahn, SLS, 2003).

Table 3 summarizes and illustrates the relationship of Schwahn and Spady’s leadership domains, Schwahn’s SLS dimensions, the 2008 ISSLC standards and the program of courses of Duquesne University’s IDPEL program.
### Table 3

A Correlation of the Leadership Domains, Dimensions, ISSLIC Standards and IDPEL Courses

<table>
<thead>
<tr>
<th>Domains of Leadership</th>
<th>Strategic Leadership Dimensions of the SLS</th>
<th>2008 ISSLIC Standards</th>
<th>IDPEL Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentic Leadership</td>
<td>Creating a compelling organizational purpose.</td>
<td>Standard 2: An education leader promotes the success of every student by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth. Standard 6: An education leader promotes the success of every student by understanding, responding to, and influencing the political, social, economic, legal, and cultural context.</td>
<td>Professional Seminar Society and the Individual</td>
</tr>
<tr>
<td>Cultural Leadership</td>
<td>Creating meaning and ownership around organizational purpose.</td>
<td>Standard 1: An education leader promotes the success of every student by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by all stakeholders.</td>
<td>Leadership and Ethics Creating an Environment for a Dynamic Institution</td>
</tr>
<tr>
<td>Quality Leadership</td>
<td>Empowering every one in the organization.</td>
<td>Standard 3: An education leader promotes the success of every student by ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment. Standard 4: An education leader promotes the success of every student by collaborating with faculty and community members, responding to diverse community needs.</td>
<td>Human Resource Leadership Program Design &amp; Evaluation</td>
</tr>
<tr>
<td>Authentic Leadership</td>
<td>Modeling the organization’s purpose and principles.</td>
<td>Standard 3: An education leader promotes the success of every student by ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment. Standard 5: An education leader promotes the success of every student by acting with integrity, fairness, and in an ethical manner.</td>
<td>Leadership and Ethics, Human Resource Leadership, Planning, Quality and Finance</td>
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<tr>
<td>Service Leadership</td>
<td>Managing toward an organizational purpose and vision.</td>
<td>Standard 1: An education leader promotes the success of every student by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by all stakeholders.</td>
<td>Program Design and Evaluation, Research Design, Human Resource Leadership, Planning, Quality and Finance</td>
</tr>
<tr>
<td>Cultural Leadership</td>
<td>Creating a culture of success, cooperation, and quality.</td>
<td>Standard 2: An education leader promotes the success of every student by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.</td>
<td>Statistics, Program Design and Evaluation, Human Resource Leadership, Planning, Quality and Finance, Creating an Environment for a Dynamic Institution</td>
</tr>
<tr>
<td>Quality Leadership</td>
<td>Creating feedback loop for continuous improvement.</td>
<td>Standard 1: An education leader promotes the success of every student by facilitating the development, articulation,</td>
<td>Statistics, Program Design and Evaluation</td>
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</tr>
<tr>
<td>Standard 2: An education leader promotes the success of every student by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.</td>
<td></td>
<td>Creating an Environment for a Dynamic Institution Program Design and Evaluation Research Question Seminar</td>
<td></td>
</tr>
<tr>
<td>Standard 4: An education leader promotes the success of every student by collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Standard 3: An education leader promotes the success of every student by ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment.</td>
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<tr>
<td>Standard 5: An education leader promotes the success of every student by acting with integrity and fairness, and in an ethical manner. (Council of Chief State School Officers, 2008, pp.14-15)</td>
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</tbody>
</table>
Pernick (2001) in an article for Public Personnel Management stated, “leadership skills can be learned” (Pernick, 2001, p. 429). He identified nine required elements of an effective leadership development program:

1. Create program selection criteria.
2. Define leadership competencies.
3. Establish an application process.
4. Assess current leadership skills.
5. Provide developmental activities.
6. Align structures to reinforce the program.
7. Develop leaders in context.
8. Plan for the next generation of leaders.
9. Evaluate the leadership development program. (Pernick, 2001, p. 445)

Kraus (1996) studied five different leadership development programs from four different New England universities. Kraus collected data from semi-structured interviews of 25 school administrators that were graduated of the programs. The findings of the study suggested that the programs that included internships, mentoring, reflective practice and a cohort structure were the most effective program components to enhance their learning and workplace performance but none of the programs included all of the components. Kraus summarized the study by stating, “The changing nature of school leadership provides a challenge to administrator preparation programs. Yet, no one framework for administrator training can ensure that aspiring administrators will be prepared to lead schools into the 21st century” (Kraus, 1996, p. 23).
Summary

In summary, the IDPEL program incorporates a number of the elements for a successful leadership program that develops educational leaderships skill within its participants. Limited quantitative empirical research exists that support the claims that university educational leadership programs develop leadership skills within its participants. The majority of the leadership development programs reviewed in this study relied on qualitative data based on participant perception of the program, portfolio presentations, or semi structured interviews that asked the participants to reflect on their experiences and assess their own leadership development.

Leadership development programs have long been criticized for not adequately preparing school administrators for school and societal changes. Graduate training in educational administration has been severely admonished as having little or not effect on the success of principals and their ability to improve schools. (Normore, 2006, p. 48)

This quantitative study proposed to examine the effectiveness of Duquesne University’s Interdisciplinary Doctoral Program for Educational Leaders (IDPEL) in developing leadership skills in its participants.
CHAPTER 3

METHOD

Introduction

This study examined the extent to which the Duquesne University’s Interdisciplinary Program for Educational Leaders (IDPEL) increases the participants’ knowledge level of leadership skills. As stated earlier the Duquesne University’s Interdisciplinary Doctoral Program for Educational Leaders (IDPEL) mission statement outlines how the program will develop leadership skills in its participants (Duquesne University School of Education, 2004).

In an earlier study Diller (2004) administered the Leadership Practices Inventory – Observer Inventory to colleagues of IDPEL participants in order to assess the participants’ leadership behaviors. Based on an analysis of the results of the use of this inventory, no statistically significant quantitative changes in leadership were found. However, in semi-structured interviews, these same participants reported that, “the program contributed to their development of leadership skills and to their confidence that they could make a difference in their school and school districts” (Diller, 2004, p. 74). Believing this to be so, this study proposed to evaluate the effectiveness of the IDPEL program in the development of leadership skills in its participants. Diller (2004) identified the need for further study and evaluation of IDPEL and other leadership programs based on his study describing participants’ perceptions of the positive effect of the program. He identified the lack of qualitative evidence in his study sought by critics of leadership programs to demonstrate their effects on practice in schools. He stated that
a true longitudinal research study using qualitative data regarding the leadership practices of participants is needed to assess the true impact of IDPEL and other leadership programs.

This study proposed to add to Diller’s study (2004) and examine the effectiveness of Duquesne University’s Interdisciplinary Doctoral Program (IDPEL) in developing leadership skills in its participants through a study using qualitative data.

Research Questions

The overarching question of this study was does the IDPEL program foster and develop leadership dimensions and skills in cohort members as measured by the SLS on a continuum between emerging and mature school leaders? Specific research questions are:

1. Does the IDPEL program foster and develop the leadership dimensions and skills as measured by the SLS on a continuum between emerging and mature school leaders for cohort members based on their different role-alike experiences?

2. Does the IDPEL program foster and develop the leadership dimensions and skills as measured by the SLS on a continuum between emerging and mature school leaders for cohort members based on their various ages?
Statistical Hypothesis

1. There will be no main effect due to role-a-like experiences.
   
   \( H_0: \text{Middle Level Management} = \text{Upper Level Management} \)

2. There will be no main effect due to age.
   
   \( H_0: \text{equal to or less than 40} = \text{greater than 40} \)

3. There will be no interaction between role-a-like position and age
   
   \( H_0: \text{no interaction} \) (Witte & Witte, 2007).

Independent Attribute Variables (Main Effects)

The role-a-like positions for the subjects for this study were categorized into one of two groups, middle-level-management or upper-level-management. If the subject was in a position where he or she supervises others that do not supervise others they were classified as middle-level-managers (example: building level administrator or principal). If the subject was in a supervisory position where he or she supervises others that supervise others he or she was classified as upper-level-management (example: central office administrator).

For purpose of this study the researcher categorized the subjects in one of two age groups. One group was classified as to those with and age equal to or less than 40 and the second group was classified as a group with an age greater than 40. These age ranges were chosen based on the belief the career age range of most individual is between the ages of 21 and 60. Dividing this range in half identified the to age ranges as those 40 and younger and those over 40 in age.

Dependent Variable

Leadership skills as measured by the SLS Schwahn and Spady (2002) are
conceptually defined in terms of the 10 dimensions found in *Total Leaders*. The concepts of the ten dimensions were operationalized by Schwahn in the Strategic Leadership Instrument (1996).

In order to test the efficacy of Schwahn’s leadership instrument Davis (2004) conducted a study of the SLS, which included the reliability, analysis of test items and criterion-related validity. The major finding of the Davis study was that while the SLS interview instrument demonstrated some measure of validity, the quality of reliability was questionable. The researcher suggested that training needs to be standardized, judgments about leaders be consistently made and the instrument be reconstructed so as to measure the dimensions of leadership. Davis (2004) summarized the ten leadership dimensions of Schwahn’s SLS interview as:

1) Purpose: Creating a compelling organizational purpose. This dimension assesses the degree to which a leader: a) understands the role in changing organizations played by organizational purpose, vision, and core values; b) understands the leader’s role in creating and maintaining organizational purpose, vision, and core values; and c) creates organizational consensus around a compelling purpose and vision. This dimension assesses both the authentic and visionary domains of strategic leadership.

2) Meaning: Creating meaning and ownership around organizational purpose. This dimension assess the degree to which a leader: a) values all employees finding motivational meaning in their work; b) helps create meaning for employees; and c) structures work activities to be consistent with an
organized’s purpose so that employees find meaning in their work. This
dimension assesses the cultural leadership domain of strategic leadership.

3) Empowerment: Empowering everyone in the organization. This dimension
assesses the degree to which a leader: a) understands how empowerment
leads to job satisfaction and productivity; b) influences the conditions that
create a feeling of empowerment in employees; and c) implements policies,
procedures, and practices that bring out the best in everyone and increase the
capacity of the organization. This dimension assesses the quality leadership
domain of strategic leadership.

4) Modeling: Modeling the organization’s purpose and principles. This
dimension assesses the degree to which a leader: a) understands the power
and importance of modeling and symbolic leadership; b) believes
trustworthiness and integrity are necessary conditions for leadership
legitimacy and effectiveness; and c) establishes trust and aligns personal
behavior with the purpose and vision of the organization. This dimension
assesses the authentic leadership domain.

5) Managing: Managing toward an organizational purpose and vision. This
dimension assesses the degree to which a leader: a) is an effective manager
who aligns all organizational components with the organization’s purpose and
vision; b) creates a concrete vision, processes, and structures that encourage
systematic change; and c) makes management decisions based on policies and
practices which are aligned to the organization’s purpose and vision. This
dimension assesses the service leadership domain.
6) Culture: Creating a culture of success, cooperation, and quality. This
dimension assesses the degree to which a leader: a) understands how both the
values of an individual and the culture of an organization influence how
people behave; b) creates and maintains an organizational culture based on
core values; and c) builds and sustains a culture of success, cooperation in the
workplace, and quality processes and products within the organization. This
dimension assesses the cultural leadership domain.

7) Feedback: Creating a feedback loop for continuous improvement and
accountability. This dimension assesses the degree to which a leader: a)
knows that feedback which helps an organization to continuously improve is a
powerful motivator; b) uses feedback systems about internal operations to
ascertain if the organization is meeting client expectations; and c) creates
internal and external feedback loops for accountability and continuous
improvement. This dimension assesses the quality leadership domain.

8) Win-win: Employing win-win strategies with customers and clients. This
dimension assesses the degree to which a leader: a) understands the
importance of being client-centered and customer-friendly; b) creates positive,
open, honest, trusting relationships with clients; and c) uses win-win strategies
to communicate, negotiate, and problem-solve with clients. This dimension
assesses the visionary and cultural leadership domains.

9) Change-friendly: Creating a change-friendly, continuous improvement
mindset. This dimension assesses the degree to which a leader: a)
understands that change and adaptability are needed for continuous
improvement; b) creates a change-friendly climate that encourages, supports, and rewards innovation; and c) designs an organizational structure and climate which ensure that adaptability and change become organizational norms. This dimension assesses the cultural leadership domain.

10) Lead Learner: Being the lead learner. This dimension assess the degree to which a leader: a) understands that to be an effective leader in a rapidly changing world requires that a leader be a life-long learner; b) models continuous growth and development; and c) creates a norm of continuous, purposeful learning for everyone in the organization. This dimension assesses the authentic leadership domain. (Davis, 2004, pp. 51-55)

As a result of the Davis study a 2003 revision of the SLS instrument was conducted. Based upon the 2003 revision of the instrument, it was determined that the SLS demonstrated sufficient validity and reliability to be used as a measurement of the dependent variable. Evidence for this assertion can be found in the reconceptualization of the questions and acceptable responses. As important as modifications to the instrument, interviewer training was refined and implemented so as to improve inter-rater reliability. The training process became more consistent, more detailed answer protocols were developed that included transcribed samples of exemplar answers. Tapes of interviews were developed for interviewers to score as part of their training. In summary, a consistent process of training interviewers to guarantee high levels of inter-rater reliability was implemented. Prompts from the SLS were refined to improve the criterion reliability of the instrument in judging school administrators as either emerging or mature leaders. The internal consistency reliability clustering of the instrument’s test
items within each subscale was re-evaluated and reorganized changing the SLS from a 60 prompt interview to a 50 prompt interview (Schwahn, 2003).

Data Collection

Member of the 2009 IDPEL cohort were asked to participate in the study. The SLS interview was administered to each cohort member that agreed to participate in the study. Each participant was scheduled for a one to two hour session for the structured interview. The interviews were conducted in a secluded room free of interruptions and noise. Prior to the meeting the licensed interviewer completed the demographic information on the top portion of the interview record sheet. The interviewer administered the SLS by following the scripted procedures and questions of the structured interview for each section scoring each of the interviewee’s responses based on a standardized rubric for each question (Schwahn, 2003). The SLS (2003) instrument was previously administered to the 2009 IDPEL cohort of Duquesne University prior to their admission to the program in 2005 as a pre-assessment of their leadership skills. Since the 2009 IDPEL cohort had completed all the required coursework of the IDPEL program the administration of the SLS at the conclusion of the program was a post-assessment of their leadership skills. All participants were asked the structured interview questions in the same sequence and all participant answers were evaluated in terms of the predetermined valid responses. For each participant, five structured questions from each of the ten dimensions of the SLS yielded a possible score with a range of 0 to 50 (Schwahn, 2003).

Consistent with the policies and procedures of the Duquesne University Institutional Review Board for Human Subjects Protection, each participant were
provided with information concerning the purpose of the research, risks and benefits, compensation, confidentiality, right to withdraw, summary of results, and the opportunity to participate, documented by a signed voluntary consent form.

Statistical Methods

Given the independent attribute variables, each with two levels, a two-way, analysis of variance was indicated. There were three reasons for this decision. First the $t$ test is not appropriate for this research design. The $t$ test is designed for a single comparison not multiple comparisons. Furthermore, the use of a $t$ test on a multiple comparison study “...increases the probability of a type I error beyond the level of significance” (Witte & Witte, 2003, p. 353). The assumptions of the $F$ test are similar to those for the $t$ test in that the underlying populations are normally distributed with equal variances. However, the application of the $F$ test was appropriate since the $F$ test is less sensitive to violations of normality and variability when the sample size is greater than ten (Witte & Witte, 2003, p. 358). Finally, a two-way ANOVA permits not only the evaluation of the significance of the main effects but also permits evaluation of all possible interactions of the main effects (Witte & Witte, 2003) “Interaction exists to the extent that the difference between the levels of the first factor changes when we move from level to level of the second factor” (Huck, 2004, p. 327). SLS scores were to be analyzed in a 2 (role-a-like positions: middle level management and upper level management) x 2 (age: less than or equal to 40 and greater than 40) analysis of variance, which would yield 4 cells. No post hoc test would be required since each main effect has only 2 levels. A $\alpha$ level of .05 for determination of statistical significance was to be
considered.

Research Design and Procedures

A causal-comparative research analysis was to be conducted. In causal-comparative analysis, the researcher does not manipulate or have control over the independent variable in order to observe its effect on the dependent variable (Gay & Airasian, 2003). While strong cause-and-effect conclusions cannot be made through this type of research design, they are useful in exploratory investigations where it is impossible to manipulate the independent variable (Gall, Gall, & Borg, 2003). Causal-comparative research, which is a type of non-experimental investigation, searches for cause-effect relationships by forming groups of individuals in whom the independent variable is present, absent, or present at various levels. Groups are compared on the dependent variables (Gay & Airasian, 2000).

Causal-comparative research design is sometimes preferred to correlational studies in educational research when either can be conducted. This method is often chosen because the formation of groups to measure the independent variable is more consistent with the philosophy of educators and the results are usually easier to understand and interpret. (Barnes, 2007, p. 65)

There are several reasons for performing this type of research. The sample population was selected from an already existing population, those students in the 2009 IDPEL cohort. The researcher could not manipulate the independent variables of age and role-alike-experiences; therefore a causal-comparative research design was to be used rather than an experimental research design.
CHAPTER 4

RESULTS

Introduction

The purpose of this research was to explore to what extent does the IDPEL program foster and develop leadership dimensions and skills in cohort members as measured by the Strategic Leadership Selection Interview (SLS) on a continuum between emerging and mature leaders based on their role-alike experiences and their various ages. This was accomplished by administering the SLS to nine respondents of the twenty cohort members of the 2009 IDPEL cohort.

The request to participate in the study along with the IRB Consent Form was initially sent by mail and email on May 29, 2009 to each 2009 cohort member. A follow-up email was sent on June 1, 2009 requesting and notifying the potential participants that a request had been mailed to them, which also included all the researchers contact information in order to notify the researcher if they were willing to participate in the study or if they had any further questions about the study. All twenty of the cohort members were contacted and interview times we established with respondents to complete the SLS. Thank you for your consideration emails were sent to those that chose not to participate. On June 5, 2009 a telephone call was made to any cohort member that had not responded and messages we left on their answering machines if they were not available along with a message to call the researcher if they had any further questions and about their availability in participating in the study. Finally, on June 8, 2009 an email was sent to all non-respondents as a final follow-up to request their participation. The final interviews were conducted on June 9, 2009. Of the nine respondents that provided
useable data, two were female and seven were male, five were in the forty or less than age range and four were in the greater than forty age range, and in their role alike positions the same five were in middle level management positions and the same four were in upper level management positions.

The final result of the numerical relationship of the subgroups (by age and role-alike position) resulted in a two-by-two matrix, which manifested two cell-sizes of zero. The data collected on age and role-alike positions only generated data for participants that were in the younger age group and middle management positions and individuals in the older age group and in upper level management positions with no participants in the younger and upper level management position and older and middle management position classifications. This analysis obviated the need to abandon the two-way analysis of variance, since the ANOVA statistic requires data recorded in all the specified cells. Given this circumstance it was determined that the statistical process should be limited to one of a descriptive nature yielding exploratory, rather than inferential conclusions.

Summary data for each dimension on the pre and post assessments are found in Tables 4 and 5. Table 4 shows the summary of all participants’ pre-assessment mean scores and standard deviations for each of the 10 dimensions 5 questions of the SLS. Table 4 shows the summary of all participants’ post assessment mean scores and standard deviations for each of the 10 dimensions 5 questions of the SLS. The range of means for the ten dimensions on the pre-assessment was 1.44 to 3.56 and the range of standard deviations was 0.53 to 1.86. The mean for all respondents on the pre-assessment was 25.11 and the standard deviation was 8.49. The range of means for the 10 dimensions on the post-assessment was 4.00 to 4.89 and the range of standard deviations was 0.33 to
1.13. The mean for all respondents on the post-assessment was 44.00 and the standard deviation was 3.28. This summarized the information contained in the following two tables.
Table 4

Summary of Pre-Assessment Data Collected Using the Strategic Leadership Selection Interview

<table>
<thead>
<tr>
<th>Elements of the Strategic Leadership Selection Interview</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension 1 Creating a Compelling Organizational Purpose</td>
<td>2.11</td>
<td>1.36</td>
</tr>
<tr>
<td>Dimension 2 Creating Meaning and Ownership Around Organizational Purpose</td>
<td>3.44</td>
<td>0.88</td>
</tr>
<tr>
<td>Dimension 3 Empowering Everyone in the Organization</td>
<td>2.33</td>
<td>1.50</td>
</tr>
<tr>
<td>Dimension 4 Modeling the Organization’s Purpose and Principles</td>
<td>3.56</td>
<td>1.01</td>
</tr>
<tr>
<td>Dimension 5 Managing Toward an Organizational Purpose and Vision</td>
<td>1.44</td>
<td>1.01</td>
</tr>
<tr>
<td>Dimension 6 Creating a Culture of Success, Cooperation and Quality</td>
<td>2.67</td>
<td>0.71</td>
</tr>
<tr>
<td>Dimension 7 Creating a Feedback Loop for Continuous Improvement</td>
<td>2.22</td>
<td>1.86</td>
</tr>
<tr>
<td>Dimension 8 Employing Win-Win Strategies with Customers and Clients</td>
<td>1.67</td>
<td>1.41</td>
</tr>
<tr>
<td>Dimension 9 Creating a Change Friendly, Continuous Improvement Mindset</td>
<td>3.11</td>
<td>1.05</td>
</tr>
<tr>
<td>Dimension 10 Being the Lead Learner</td>
<td>2.56</td>
<td>0.53</td>
</tr>
</tbody>
</table>
Table 5
Summary of Post Assessment Data Collected Using the Strategic Leadership Selection Interview

<table>
<thead>
<tr>
<th>Elements of the Strategic Leadership Selection Interview</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension 1 Creating a Compelling Organizational Purpose</td>
<td>4.56</td>
<td>0.73</td>
</tr>
<tr>
<td>Dimension 2 Creating Meaning and Ownership Around Organizational Purpose</td>
<td>4.44</td>
<td>0.88</td>
</tr>
<tr>
<td>Dimension 3 Empowering Everyone in the Organization</td>
<td>4.44</td>
<td>0.73</td>
</tr>
<tr>
<td>Dimension 4 Modeling the Organization’s Purpose and Principles</td>
<td>4.44</td>
<td>1.13</td>
</tr>
<tr>
<td>Dimension 5 Managing Toward an Organizational Purpose and Vision</td>
<td>4.11</td>
<td>0.60</td>
</tr>
<tr>
<td>Dimension 6 Creating a Culture of Success, Cooperation and Quality</td>
<td>4.00</td>
<td>0.71</td>
</tr>
<tr>
<td>Dimension 7 Creating a Feedback Loop for Continuous Improvement</td>
<td>4.22</td>
<td>0.83</td>
</tr>
<tr>
<td>Dimension 8 Employing Win-Win Strategies with Customers and Clients</td>
<td>4.22</td>
<td>0.92</td>
</tr>
<tr>
<td>Dimension 9 Creating a Change Friendly, Continuous Improvement Mindset</td>
<td>4.89</td>
<td>0.33</td>
</tr>
<tr>
<td>Dimension 10 Being the Lead Learner</td>
<td>4.67</td>
<td>0.5</td>
</tr>
</tbody>
</table>
Table 6 provides information concerning scores by respondents, by age group on the 50 questions of the Strategic Leadership Selection Interview. On the pre-assessment administration of the Strategic Leadership Selection Interview, the mean score for respondents less than or equal to 40 years of age was 23.60 (s.d. = 6.43) and for respondents more than 40 years of age was 27.00 (s.d. = 11.34). On the post-assessment administration of the Strategic Leadership Selection Interview, the mean score for respondents less than or equal to 40 years of age was 46.20 (s.d. = 2.39) and for respondents more than 40 years of age was 41.25 (s.d. = 1.71). It is observed that while the scores of respondents in both age groups increased from pre-administration to post-administration of the Strategic Leadership Selection Interview, those respondents in the lower age group scored higher than those in the higher age group.

The following table shows the number of participants in each age groups mean scores on the pre-assessment and the post assessment along with the standard deviation and standard error of mean for each score.
Table 6

Summary of Strategic Leadership Selection Interview, by Age

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;= 40</td>
<td>5</td>
<td>23.60</td>
<td>6.43</td>
<td>2.87</td>
</tr>
<tr>
<td>&gt; 40</td>
<td>4</td>
<td>27.00</td>
<td>11.34</td>
<td>5.67</td>
</tr>
<tr>
<td>Pre-Total</td>
<td>9</td>
<td>25.11</td>
<td>8.49</td>
<td>2.83</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;= 40</td>
<td>5</td>
<td>46.20</td>
<td>2.39</td>
<td>1.07</td>
</tr>
<tr>
<td>&gt; 40</td>
<td>4</td>
<td>41.25</td>
<td>1.71</td>
<td>0.85</td>
</tr>
<tr>
<td>Post-Total</td>
<td>9</td>
<td>44.00</td>
<td>3.28</td>
<td>1.09</td>
</tr>
</tbody>
</table>
Additional insight, as found in Tables 7 and 8, is gained concerning how respondents in the two age groups scored on the Strategic Leadership Selection Interview. Table 7 identifies the total pre-assessment scores of the participants by age groups. Table 8 identifies the total post assessment scores of the participants by age groups. The analysis of Table 7 by total score, by age group, for the Strategic Leadership Selection Interview on the pre-assessment indicates a distribution of scores for both groups across the range of scores (15 – 39). Also, in the analysis of Table 8 it can be observed that on the post-assessment all respondents in the lower age group scored in a higher range than all respondents in the higher age group (43 – 50 and 39 – 43, respectively). Tables 7 and 8 also provide evidence to suggest that the score range for respondents was generally higher for the post-assessment than on the pre-assessment (39 – 50 and 15 – 39, respectively).

The following two tables show the score ranges for the participants by age groups on the pre-assessment and post assessment.
Table 7

Pre-Assessment Analysis, by Total Score, Age

<table>
<thead>
<tr>
<th></th>
<th>15</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>22</th>
<th>25</th>
<th>34</th>
<th>39</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;= 40</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>&gt; 40</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 8

Post-Assessment Analysis, by Total Score, by Age

<table>
<thead>
<tr>
<th></th>
<th>39</th>
<th>41</th>
<th>42</th>
<th>43</th>
<th>44</th>
<th>45</th>
<th>47</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;= 40</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>&gt; 40</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 9 identifies the pre-assessment score mean differences of the participants by age classifications and by the five questions for each of the ten leadership dimensions assessed by the SLS. Similarly, Table 10 identifies the post-assessment score mean differences of the participants by age classifications and by the five questions for each of the ten leadership dimensions assessed by the SLS. Additional insight can be gained by analysis of individual dimensions by age group of the Strategic Leadership Selection Interview (Tables 9 and 10). On the pre-assessment the respondents in the higher age group (greater that 40 years of age) scored higher on 9 out of 10 dimensions. The single dimension on which the lower age group scored higher was Dimension 4, Modeling the Organization’s Purpose and Principles. On the post-assessment, respondents in the lower age group scored higher on 9 of 10 dimensions. The single dimension on which respondents in the higher age group scored higher was Dimension 10, Being a Lead Learner.

The following tables show a comparison of the means and mean differences of the participants on the pre-assessment and post assessment by each dimension.
Table 9

Pre-Score Mean Difference of Strategic Leadership Selection Interview by Dimension, by Age

<table>
<thead>
<tr>
<th>Dimension</th>
<th>&lt;= 40</th>
<th>&gt; 40</th>
<th>Difference (&lt;= 40 minus &gt; 40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Modeling the Organization’s Purpose and Principles</td>
<td>3.80</td>
<td>3.25</td>
<td>0.55</td>
</tr>
<tr>
<td>5 Managing Toward an Organizational Purpose and Vision</td>
<td>1.40</td>
<td>1.50</td>
<td>-0.10</td>
</tr>
<tr>
<td>6 Creating a Culture of Success, Cooperation and Quality</td>
<td>2.60</td>
<td>2.75</td>
<td>-0.15</td>
</tr>
<tr>
<td>9 Creating a Change Friendly, Continuous Improvement Mindset</td>
<td>3.00</td>
<td>3.25</td>
<td>-0.25</td>
</tr>
<tr>
<td>3 Empowering Everyone in the Organization</td>
<td>2.20</td>
<td>2.50</td>
<td>-0.30</td>
</tr>
<tr>
<td>10 Being the Lead Learner</td>
<td>2.40</td>
<td>2.75</td>
<td>-0.35</td>
</tr>
<tr>
<td>7 Creating a Feedback Loop for Continuous Improvement</td>
<td>2.00</td>
<td>2.50</td>
<td>-0.50</td>
</tr>
<tr>
<td>8 Employing Win-Win Strategies with Customers and Clients</td>
<td>1.40</td>
<td>2.00</td>
<td>-0.60</td>
</tr>
<tr>
<td>1 Creating a Compelling Organizational Purpose</td>
<td>1.80</td>
<td>2.50</td>
<td>-0.70</td>
</tr>
<tr>
<td>2 Creating Meaning and Ownership Around Organizational Purpose</td>
<td>3.00</td>
<td>4.00</td>
<td>-1.00</td>
</tr>
</tbody>
</table>
Table 10

Post Score Mean Difference of Strategic Leadership Selection Interview by Dimension, by Age

<table>
<thead>
<tr>
<th>Dimension</th>
<th>&lt;= 40</th>
<th>&gt; 40</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling the Organization’s Purpose and Principles</td>
<td>5.00</td>
<td>3.75</td>
<td>1.25</td>
</tr>
<tr>
<td>Creating a Culture of Success, Cooperation and Quality</td>
<td>4.40</td>
<td>3.50</td>
<td>0.90</td>
</tr>
<tr>
<td>Employing Win-Win Strategies with Customers and Clients</td>
<td>4.60</td>
<td>3.75</td>
<td>0.85</td>
</tr>
<tr>
<td>Creating Meaning and Ownership Around Organizational Purpose</td>
<td>4.80</td>
<td>4.00</td>
<td>0.80</td>
</tr>
<tr>
<td>Creating a Feedback Loop for Continuous Improvement</td>
<td>4.40</td>
<td>4.00</td>
<td>0.40</td>
</tr>
<tr>
<td>Empowering Everyone in the Organization</td>
<td>4.60</td>
<td>4.25</td>
<td>0.35</td>
</tr>
<tr>
<td>Creating a Change Friendly, Continuous Improvement Mindset</td>
<td>5.00</td>
<td>4.75</td>
<td>0.25</td>
</tr>
<tr>
<td>Managing Toward an Organizational Purpose and Vision</td>
<td>4.20</td>
<td>4.00</td>
<td>0.20</td>
</tr>
<tr>
<td>Creating a Compelling Organizational Purpose</td>
<td>4.60</td>
<td>4.50</td>
<td>0.10</td>
</tr>
<tr>
<td>Being the Lead Learner</td>
<td>4.60</td>
<td>4.75</td>
<td>-0.15</td>
</tr>
</tbody>
</table>
In order to test the relationship between assessment scores (both pre- and post assessments) and the groups determined by age, biserial correlations were calculated.

“The biserial $r$ is especially designed for the situation in which both of the variables correlated are continuously measurable but one of the two is for some reason reduced to two categories.” (Gilford & Fruchter, 1978, p. 304). In the instance of this research, the SLS scores are continuous, interval data and age (normally considered continuous, interval data) was artificially reduced to dichotomous, nominal data. The creation of the artificial age distinction and subsequent data collection were accomplished so as to meet the original requirements of an ANOVA analysis.

The formula for the computation of a biserial $r$ is

$$r_b = \left[ \frac{\bar{X}_p - \bar{X}_q}{S_t} \right] \left[ \frac{pq}{y} \right]$$

(1)

where,

$\bar{X}_p =$ mean of $X$ values for the higher group in the dichotomized variable, the one having more of the ability on which the sample is divided into two sub groups

$\bar{X}_q =$ mean of $X$ values for the lower group

$p = \text{proportion of cases in the higher group}$

$q = \text{proportion of cases in the lower group}$

$y = \text{ordinate of the unit normal distribution curve at the point of division between segments containing p and q proportions of the cases}$

$S_t = \text{standard deviation of the total sample in the continuously measured variable X.}$
The calculated biserial correlation for age group and pre-administration score on the SLS yielded a result of $r = .25$ indicating a low, positive relationship between the mean difference of the scores of respondents by group and the groups as intact entities. The calculated biserial correlation for age group and post-administration score on the SLS yielded a result of $r = .94$ indicating a high, positive relationship between mean difference of the scores of respondents by group and the groups as intact entities.

Summary

The results of this descriptive, exploratory study suggest that for the respondents assessed, growth in leadership as a result of participation in the IDPEL may be suggested. The pre-assessment to post-assessment results for all respondents ($n = 9$) evidenced increase in scores. Of interest, respondents in the lower age group ($\leq 40$ years of age) appear to have consistently scored higher on the post-assessment than those in the higher age group ($> 40$ years of age). This result is evident in not only the calculated mean score of each group but also by a dimension-by-dimension analysis.
CHAPTER 5
DISCUSSION

Introduction

One measure for the accountability for programs in higher education is the assessment of efficacy of the program. This research attempted to explore to what extend Duquesne University’s IDPEL program fosters and develops leadership skills. The instrument by which this assessment was done was through the administration of the Strategic Leadership Selection Interview (Schwahn, 2003). There have been a variety of assessment instruments and procedures used to assess the efficacy of leadership programs (self reporting data from students in leadership programs, The Leaders Attributes Inventory Instrument, portfolio assessments based on the ISLLC standards, Leadership Practices Inventory-Observer Inventory, NASSP Individual Development Program Assessment).

Statement of the Problem and Procedures

This quantitative study proposed to gather quantitative baseline data of the leadership skills development of participants in the IDPEL program and to show a change of their leadership skills development through their participation in the program as compared to their various leadership roles (role-a-like-experiences) and their ages. As initially planned, two separate research questions were developed to inform the goals of the study. Data analysis revealed that of the respondents, five were in the forty or less than age range and four were in the greater than forty age range, and in their role alike positions the same five were in middle level management positions and the same four were in upper level management positions. Therefore, data analysis, interpretation, and
summarization could be focused on one research question, with two sub-parts. The single research question, therefore is: Does the IDPEL program foster and develop leadership dimensions and skills in cohort members as measured by the Strategic Leadership Selection Interview (SLS) on a continuum between emerging and mature leaders based on their role-alike experiences and their various ages? The SLS was administered to nine out of twenty cohort members of Duquesne University’s 2009 IDPEL cohort. Of the nine participants that provided useable data, two were female and seven were male, five were in the forty or less than age range and four were in the greater than forty age range, and in their role alike positions the same five were in middle level management positions and the same four were in upper level management positions. The low response, range and limited variety of results of the numerical relationship of the subgroups (by age and role-alike position) resulted in the determination that the statistical process should be limited to one of a descriptive nature yielding exploratory, rather than inferential conclusions.

The researcher collected and analyzed data from each participant’s SLS pre-assessment and SLS post-assessment, along with their age range classification and role-alike classification.

Conclusions and Recommendations

The results, although limited by a small sample size, suggest the effectiveness in the IDPEL program in developing leadership skills in participants. Support for this contention can be found in the analysis of pre- and post assessment scores for all 9 respondents. The mean score increased from 25.11 to 44.00. Additional support for this contention can be found in Table 11 by comparing results of this study with that of Davis
(2004, p.64). The ninety participants in Davis’s (2004) study included administrators in leadership positions in school districts throughout Pennsylvania along with doctoral students in schools of education from Duquesne University, Shippensburg University and Mercyhurst College, all institutions in Pennsylvania.

Table 11 shows a comparison of mean scores from the current study’s participants as compared to the mean scores of the participants of Davis’s (2004) study. Davis (2004) identified the emerging and mature leaders’ mean scores for each of the ten dimensions of the SLS, which is based on appropriate answers for five questions for each of the dimensions of the SLS. The table shows that the current participants’ mean scores all exceed the mean scores of the mature leaders mean scores in the Davis study. In Davis’s study the SLS was administered to extant school leaders hired by school districts to assess their professional development needs and to determine whether or not the SLS distinguishes between mature and emergent leaders and do their profiles differ (Davis, 2004). Table 11 presents the profiles from Davis’s study in both categories in mean scores on each dimension as compared the mean scores of the 2009 cohort post assessment mean scores.
Table 11
Comparison of Previous and Current Mean Scores on Strategic Leadership Selection

Interview, by Dimension

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Davis: Emerging Leader (n = 50)</th>
<th>Davis: Mature Leader (n = 40)</th>
<th>Current Study (n = 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.08</td>
<td>2.73</td>
<td>4.56</td>
</tr>
<tr>
<td>2</td>
<td>3.28</td>
<td>3.63</td>
<td>4.44</td>
</tr>
<tr>
<td>3</td>
<td>1.72</td>
<td>2.00</td>
<td>4.44</td>
</tr>
<tr>
<td>4</td>
<td>3.76</td>
<td>4.15</td>
<td>4.44</td>
</tr>
<tr>
<td>5</td>
<td>1.86</td>
<td>3.00</td>
<td>4.11</td>
</tr>
<tr>
<td>6</td>
<td>2.54</td>
<td>3.38</td>
<td>4.00</td>
</tr>
<tr>
<td>7</td>
<td>1.94</td>
<td>2.63</td>
<td>4.22</td>
</tr>
<tr>
<td>8</td>
<td>2.56</td>
<td>2.90</td>
<td>4.22</td>
</tr>
<tr>
<td>9</td>
<td>2.66</td>
<td>3.15</td>
<td>4.89</td>
</tr>
<tr>
<td>10</td>
<td>3.32</td>
<td>3.53</td>
<td>4.67</td>
</tr>
</tbody>
</table>
In all instances in the current study, IDPEL students who completed all course work and for whom useable data was available scored higher than those students in the Davis study.

An additional conclusion that can be developed involves the relative age of respondents. In the current study, all students in the lower age group scored higher on the post-assessment than did their counterparts of the upper age group. One possible explanation for this can be found in informal responses by the respondents in the upper age group. In some instances, respondents in the upper age group prefaced their responses to individual questions with statements such as “I know the textbook response, but my experience causes me to answer differently.” The more experienced participants appeared to rely more on their leadership experience in some of their responses as compared to the those in the middle level positions that appeared to respond more precisely to a so called textbook response. In other word, respondents in the upper age group provided responses, but specific words chosen or criteria for the response did not match that required for a “correct” response. It may be possible to suggest that the Strategic Leadership Selection Interview may be better adapted for potential leaders earlier in their careers rather than later in their careers.

Recommendations for Further Research

The findings of this research are limited in scope because of the small sample size. By increasing the sample size, the potential to explore both age and job-alike variables would be possible. A future qualitative study might also focus on specific words used by individual respondents to individual elements of the Strategic Leadership Selection Interview. A qualitative study could be conducted to analyze the types of
responses of the two groups to compare the implications of their responses by drilling
deep into participants’ responses. This study could not drill deeper into each response
of the participants due to the required administration guidelines of the SLS.

Finally, since the original goal of the Strategic Leadership Selection Interview
was to predict successful leadership practices that ultimately impact student learning, a
study could be conducted that considers student learning as the unit of analysis, measured
in terms of leadership effectiveness.

Some suggested practices to be considered by leadership programs would be to:
(1) use a pre- and post assessment of leadership skills of program participants as one of
the dimensions in assessing a program’s effectiveness, and (2) explore the effectiveness
of leadership programs in greater depth in terms of the age ranges of participants and
work related experiences of participants.

Summary

Leadership roles in today’s school are responsible for improving schools and
student performance (Elmore, 2000). One of the driving forces in educational reform
since the enactment of No Child Left Behind legislation is on research based educational
practices and the use of data to make decisions for educational reforms. This study is one
attempt to apply those same measures or standards to leadership programs that prepare
educational leaders responsible implement programs to improve schools and student
achievement.

This study provides an example of the effectiveness of the IDPEL program in
developing educational leaders based on a limited number of participants, but it suggests
that leadership can be taught and developed in its participants. As a next step a study
may be done on the effectiveness of the graduates of the program in improving student performance in the schools where they are educational leaders.
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