2009

A comparative study of leadership behaviour styles for stress reduction in contemporary educational leaders: Considerations for succession planning in the 21st century

Clara Howitt
University of Windsor

A Comparative Study of Leadership Behaviour Styles for Stress Reduction in Contemporary Educational Leaders: Considerations for Succession Planning in the 21st Century

by

Clara Howitt

A Dissertation

Submitted to the Faculty of Graduate Studies
Through the Faculty of Education
In Partial Fulfillment of the Requirements for
The Degree of Doctor of Philosophy
At the University of Windsor

Windsor, Ontario. Canada
2009

Your file Votre référence
ISBN: 978-0-494-57657-1
Our file Notre référence
ISBN: 978-0-494-57657-1

AUTHOR'S DECLARATION OF ORIGINALITY

I hereby certify that this thesis is original research undertaken for the PhD degree at the University of Windsor, Faculty of Education, and that no part of this thesis has been published or submitted for publication.

I certify that, to the best of my knowledge, my thesis does not infringe upon anyone's copyright or violate any proprietary rights that any ideas, techniques, quotations, or any other material from the work of other people included in my thesis, published or otherwise, are fully acknowledged in accordance with the standard referencing practices. Furthermore, to the extent that I have included copyrighted material that surpasses the bounds of fair dealing within the meaning of the Canada Copyright Act, I certify that I have obtained a written permission from the copyright owner(s) to include such material(s) in my thesis and have included such copies of such copyright clearances in my appendix.

I declare that this is a true copy of my thesis, including any final revisions, as approved by my thesis committee and the Graduate Studied office, and that this thesis has not been submitted for higher degree to any other University or Institution.

ABSTRACT

The purpose of this study was to determine whether one or more types of leadership behaviour styles (transformational, collaborative, direct/direct-informational and/or non-directive) are conducive to less administrator stress. The participants were drawn from one school board in South Western Ontario and included vice principals, principals, and superintendents. Data gathered were examined for links between leadership behaviour styles and work stress factors. Instruments used in the study included the *Life Styles Inventory* ™ (LSI) and the Administrative Stress Index (ASI), a demographic questionnaire along with a qualitative response to a self-perceived stressful leadership scenario.

Study results indicated that there was no correlation between the LSI Style subscales, Concern subscales and ASI stress levels. In addition, there was no relationship between the self-identified leadership behaviour style and ASI stress levels. The largest proportion of female participants (51.9%) preferred a collaborative leadership style followed by a direct/direct-informational leadership style (26.9%) and the largest proportion of males preferred a direct/direct-informational leadership behaviour style (39.5%) followed by a collaborative leadership style (34.8%). More males preferred transformational leadership (20.9%) over females (9.6%). Qualitative data indicated that administrators experienced stress mostly when contending with administrative constraints and interpersonal conflicts. Qualitative data indicated that the most stressful situations for administrators involved contentious issues with adults rather than students.

DEDICATION

He gives strength to the weary and increases the power of the weak. Even youths grow tired and weary, and young men stumble and fall; but those who hope in the Lord will renew their strength. They will soar on wings like eagles; they will run and not grow weary, they will walk and not be faint.

Isaiah 40:29-31

The invisible keel enables the sailing vessel to
stay upright,
stay on course, and
make headway,
... especially in storms.

My parents, my husband, my friends and my Lord are my keel. Without them there would have been no arrival to my final destination.

ACKNOWLEDGEMENTS

In pursuing my doctorate degree, I have learned many life lessons including that the journey is more important than the final destination. In addition, the most important lesson has been that the journey was accomplished only through exceptional support, mentorship, patience and encouragement of so many very important people in my life.

I would be remiss if I did not acknowledge the tremendous support of my Advisor, Dr. Larry Morton. His extraordinary intellectual guidance, mentorship and unfailing patience helped me to endure the journey and discover my abilities and confidence to become a critical thinking researcher. His insightful mind, sense of inquiry, impeccable professionalism, high standards and true dedication to research are beyond reproach and served to guide me in my effort to developing the right skills and achieving my goal.

Along with Dr. Morton, my dissertation committee provided me with expertise and advice to support my study. I am most grateful of the insight and advice of Dr.Yvette Daniel (University of Windsor), Dr. Margery Holman (University of Windsor) and Dr. Seth Agbo (Lakehead University). I am no less indebted to my external committee member Dr. Thomas Ryan from Nipissing University. It is through their guidance and inspiration that I will be pursuing publications and additional studies of interest.

I must also thank three very kind, brilliant and distinguished gentlemen and two very talented, brilliant lovely ladies who have been guides in my professional work realm and who have since become colleagues and friends, Stephen Snider, David Lynn, Warren Kennedy, Jenni Donohoo and Geri Salinitri. Steve, David, Jenni and Geri have provided continuous support in my doctoral journey and their words of encouragement provided the impetus to keep moving forward even when personal and professional life circumstances placed many obstacles in my path. Warren provided me with encouragement and the gift of time. For that I am forever grateful.

Unequivocally, my deepest thanks, admiration and respect go to my family as they have been my source of unyielding love and affection. My dear husband, Richard believed in me even when I doubted myself. My parents, Emanuele and Maria Calamita are my most ardent supporters and have demonstrated the value of an insatiable work ethic and a bottomless pit of genuine love for family. Richard and my mother and father share any success I celebrate due to their steadfast support and love.

My hope is that my accomplishment will serve as an example of stamina, confidence and excellence in education for my beautiful girls, Giorgia (5 years old) and Caroline (2 years old). They are truly my every joy. A personal note to my precious daughters: *Dare to dream. If you are inspired to believe you will most certainly achieve whatever you set out to do. I wish you strength, tenacity, confidence, knowledge, love and integrity in all that you do. Remember, I will always believe in you.*

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1 - INTRODUCTION

Overview of Study

The face of contemporary educational leadership has become increasingly younger and with it comes the challenge for the "youthful leader" to develop skills to manage the stressful demands of the job (Canadian Association of Principals, 1999, 2000, 2003; McIntyre, 2005; Williams, 2001). Varying levels of stress and increasing demands are an inevitable consequence of the role for a contemporary educational leader (Allison, 1999; Catholic Principals' Council of Ontario, 2004; Cooley & Shen, 2000; D'Arbon, Duigan, Dwyer & Goodwin, 2001; Educational Research Service, 1998; Institute for Educational Leadership, 2008; Grimmet & Echols, 2000; Williams, 2001). From the researcher's perspective the contemporary educational leader must be resilient to stress in order to maintain longevity and successfully fulfill operational and instructional responsibilities. Educational leaders of today must exercise appropriate leadership behaviour styles that may be essential to neutralize the negative impacts of stress.

Leithwood and Prestine (2002) stated that there is an unchallenged link in the minds of many policy makers between a globally competitive national economy and the quality of the nation's education. In the public eye, learning excellence is generally measured by the high school graduation rate and student achievement scores derived from standardized tests. Standardized tests in the Province of Ontario include the Education Quality Accountability Office (EQAO): (a) Primary Assessment of Reading, Writing and Mathematics (Grades 1 -3); (b) Junior Assessment of Reading, Writing and Mathematics (Grades 4 -6); (c) Grade 9 Assessment of Mathematics; and (d) the Ontario

Secondary School Literacy Test (OSSLT). EQAO measures student learning in the foundational skills of reading, writing, and mathematics according to the expectations established in the Ontario Curriculum, Grades 1-8. The results of international tests such as, the Program for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS), also garner media, public, and political interest. In the document *Energizing Public Education* (2008), the Honourable Kathleen Wynne, Minister of Education for the Province of Ontario, stated that ultimately schools are responsible to develop students into highly skilled, knowledgeable, and caring citizens who will contribute to a strong future economy and a cohesive society.

Contemporary educational leaders, as well as teachers, have a layer of stress fostered by the Ministry of Education (MOE) and the general public to ensure successful student performance. Allison (1997) stated that all leaders experience stress and their ability or failure to cope with stress may have repercussions affecting teachers and students in a school system. Educational leaders play an important role in leading student achievement (Waters & Marzano, 2006; Waters, Marzano & McNulty, 2003). It may be interpreted by some that if educational leaders play an important role in leading student achievement they also, in part, fuel the potential success of the global economy. Further interpretation may be that if educational leaders fail in their responsibilities there may be negative repercussions affecting the nation's ability to compete in the global economy.

McIntyre (2005) stated that the Ontario College of Teachers (OCT) predicted more than 75% of those qualified for administrator positions would retire within the

decade and almost half would do so by 2005. Due to the number of retirements, Ontario school boards have had difficulty finding administrators to staff schools. An administrator drought also loomed across the country. The 1999 Canadian Association of Principals (CAP) paper entitled the *Leadership Crisis Study Part I* determined there would be a 30% to 50% shortage of administrators in the next decade. The CAP continued the *Leadership Crisis Study Part II and Part III* in 2000 and 2003. The final stages of the study concluded the shortage predicted in 1999 was, in fact, a reality in 2003.

Milne and MacKinnon (2008) distinguished two distinct roles for educational leaders in the Ontario Education Act, an operational manager and an instructional leader ensuring a safe school environment promoting and planning for improved student achievement. Although the role of operational manager is important, for the purpose of this study we will focus on the role of instructional leader. Wang, Haertel, and Walberg (2003) described the educational leader as an instructional leader who ensures that teachers are (a) helping students to become critical thinkers with a developed ability to gauge their learning, (b) engaging in positive interactions with students, and (c) creating a positive classroom climate. Wang et al. conducted a meta-review and synthesis of research on variables related to learning including cognitive and affective school outcomes. The results indicated that out-of-school variables (community, peer-group, home environment and parental support, and out-of-school time) and implementation, classroom instruction and climate variables had the greatest influence on student learning. Noting the results of this study it is important for the reader to make the connection to a

growing public and research consensus that effective educational leadership positively impact student achievement. Educational leaders who exercise instructional leadership to guide their staff in creating appropriate school variables improve student achievement.

Effective educational leaders influence student achievement through two important pathways; the support and development of effective teachers, and the implementation of effective organizational processes. Leithwood, Seashore, Anderson, and Wahlstrom (2004) outlined three sets of core leadership practices which include: (a) enabling teachers and other staff to do their jobs effectively by offering intellectual stimulation and models of practice; (b) setting direction for the organization by developing shared goals, monitoring organizational performance, and promoting effective communication; and (c) redesigning the organization by creating a productive school climate, modifying organizational structures that undermine the work, and building collaborative processes. These core leadership practices complement both transformational and collaborative leadership behaviour styles. Transformational leaders model behaviours that motivate and inspire others to achieve a collective goal. Collaborative leaders engage others to achieve an organizational vision by appreciating others as equals.

Furthermore, Leithwood et al. (2004) highlighted the three aspects of the educational leader's job that support him/her in their effort to improve student achievement which include (a) developing an understanding of how to support teachers, (b) managing the curriculum in ways that promote student learning, and (c) developing the ability to transform schools into more effective organizations that foster powerful

teaching and learning for all students. Since educational leaders are charged with guiding instructional changes they must ensure that these changes are fully implemented by the teaching staff. Educational leaders must have the skill to influence staff to create environments which are conducive to learning and to adopt instructional practices which are most effective in enhancing the knowledge and skills that promote critical thinking skills (Luke, 2000).

Fortin (1989) suggested that leadership behaviour style may impact leader stress in his examination of educational leaders in the Outaouais (Quebec-Ontario) region. The study determined the relationship between the educational leader's level of stress and his/her Machiavellian behaviour (a leadership behaviour style characterized by extreme competitiveness and a need to dominate others). Results indicated that educational leaders who exercised a lesser Machiavellian style were less stressed in performing management tasks. Fortin concluded that Machiavellian school leaders were more susceptible to feeling stress tied to administrative tasks that were part of their operational responsibilities. In contrast, Yackel (1984) determined there was no relationship between leadership behaviour style and the sources, frequency, and intensity of administrative stress.

Statement of the Problem

The image of the contemporary educational leader has become younger with rising attrition rates (McIntyre, 2005; Williams, 2001). From the researchers' perspective there is a need to ensure that the "youthful" educational leader of today is resilient to stress in order to maintain longevity and successfully fulfill operational and instructional

responsibilities. Further, as the role of educational leader is critical to ensuring improved student achievement, boards must make the position attractive so that the positions are filled with the right people (Canadian Association of Principals, 1999.2000, 2003; Institute for Educational Leadership, 2008).

In Canada and other nations worldwide, school boards struggle to attract quality educational leaders for school administrative positions as well as senior executive officer positions (Canadian Association of Principals, 1999, 2000, 2003; D'Arbon et al., 2001; Educational Research Services, 1998; Grimmett and Echols., 2000; Independent Schools Queensland, 2006; McIntyre, 2005; Williams, 2001). The continuously changing educational climate in Ontario, with the introduction of the Educational Quality Improvement Act, has been altered with much of the decision making power being shifted to the provincial government. This shift has resulted in an increasing number of mandates and tremendous downloading to schools which may be a contributing factor to what is considered a serious depletion of the leadership cadre in the province. Increasingly, school boards are reporting shortages of qualified applicants for the rapidly growing number of educational leader vacancies (Canadian Association of Principals, 1999, 2000, 2003; Educational Research Services, 1998; Institute of Educational Leadership, 2000; McIntyre, 2005; Williams, 2001).

McIntrye (2005) stated that the OCT (2000) predicted that more than 75% of those qualified for administrator positions in the province of Ontario would retire within the decade. Additionally, the CAP (1999) determined that in the next decade there would be a 30% to 50% national shortage of educational leaders. In the last decade, school

boards across the nation have been struggling to fill educational leader positions with candidates who are interested, capable, and qualified for the job. The Institute for Educational Leadership (IEL) (2008) stated partially due to perceptions of added stress teachers are not interested in stepping into the role of educational leader.

A compounding part of the educational leader shortage problem is the lack of qualified individuals who are the right match to fill positions. McIntrye (2005) stated that since the year 2000 the OCT issued on average 175 Temporary Letters of Approval (TLA) per year for school leader positions. The TLA allow boards to appoint teachers who do not hold the required qualifications as school administrators. Between the years 2000 and 2005 approximately 1,000 Ontario teachers per year completed their principal's qualification certification. In the year 2004–2005 the number of TLAs exceeded the provincial average for TLAs compared to the average from the previous four years. Ontario needs qualified, skilled teachers who have the ability to meet the challenges of the contemporary educational leader.

In 2005-2006 the IEL in the Province of Ontario commissioned the Learning Partnership to conduct a large scale study to (a) develop a profile of administrator demographics, (b) conduct a review of succession planning, (c) conduct a review of factors that motivate people to aspire to positions of added responsibility, and (d) conduct a review of factors that discourage people from applying for educational leadership roles. The 2005-2006 Learning Partnership study included 20 boards of education representative of the provincial profile for elementary and secondary administrators. Data were collected from 153 French language and 1,120 English language vice principals,

principals and superintendents. The study included the completion of a survey as well as focus group interviews. The IEL report (2008) indicated that demographic data of all school leaders in the Province of Ontario was accessed through the MOE.

According to the IEL (2008) just over one third of elementary school principals (37%) and almost half of secondary school principals will reach their 85 factor (the minimum required for an unreduced pension with the Ontario Teacher Pension Plan for members whose age and qualifying service equals 85) by 2008 and will, therefore, be eligible to retire. There is a challenge to replace principals in Ontario schools, particularly at the secondary level. Additionally, according to the IEL (2008) on average, vice principals were younger than principals, their average age being 45-47 years, compared with an average of approximately 50 years for principals. Given that the vice principals were generally younger the largest proportion of vice principals (53% elementary and 39% secondary) were projected to reach the 85 factor in 2018 or beyond.

In terms of superintendent demographic information, the IEL (2008) indicated that OCT members with supervisory officer qualifications had decreased slightly over the past five years, from 1,811 in 2003 to 1,776 in 2007. Of the 1,776 members with supervisory officer qualifications in 2007, 25% were less than 50 years of age and 75% were older than 50 years of age.

The IEL (2008) report specified deterrents of the job as well as the absence of succession planning strategies for educational leaders in the Ontario. The results based on the Succession Planning in Ontario Survey and focus group interviews indicated that the major deterrents to entering an educational leadership position included job stress,

increasing job demands, and a negative impact on the quality of life. Some suggestions of succession planning activities included mentoring, peer coaching, focus groups, temporary placement, current and relevant professional development, and job shadowing. The National College of School Leadership (NCSL) in England echoes very similar strategies for succession planning as stated in the report entitled, *Leadership Succession: Securing the Next Generation of School Leaders* (2006).

In a 2004 study of its membership, the Catholic Principals' Council of Ontario (CPCO) identified four issues that took time away from the principal's primary responsibilities. Participants commented on the time required to carry out: (a) Supervision of students due to constraints in the teacher collective agreements; (b) responsibilities created by outside sources such as EQAO; (c) new initiatives from the MOE and board that were incognizant of existing initiatives and school improvement plans; and, (d) duties downloaded to school administrators that used to be performed by board personnel. These additional time requirements, combined with the already existing operational and instructional responsibilities, dwindling number of vice principals and reductions in secretarial and custodial time compound the mounting responsibilities and stress level of a principal.

The role of the educational leader, vice principal, principal, or superintendent, is complex, emotionally taxing, and politically vulnerable. The educational leader of today requires the appropriate skills to survive the challenges of the job and achieve the goal of managing the diverse elements of a rapidly converging global community. From the researcher's perspective the contemporary educational leader must be resilient to stress in

order to maintain longevity and achieve success in their multiple responsibilities.

Purpose of the Study

The purpose of this study was to determine whether one or more types of leadership behaviour styles (a) transformational, (b) collaborative, (c) direct/direct-informational, and (d) non-directive, are conducive to reduced stress for the contemporary educational leader. Burns (1978) described transformational leadership behaviour as the leader's attempts to change the goals of the followers to a higher level that represent the collective interests of leaders and followers. Glickman, Gordon and Ross-Gordan (2007) described collaborative leadership as more than a democratic process. Collaborative leaders solved problems through a meeting of the minds of equals. Glickman et al. (2007) described direct/direct-informational leadership as when the administrator was informative, decisive, and clear about expectations for staff. This leadership behaviour style revolved around expertise, confidence, and limited choice on the part of the staff. Glickman et al. (2007) stated that non-directive leadership was based on the assumption that an individual staff member had the ability to think and act independently. The role of the leader was to assist the staff in the process of thinking through their actions. Each of these leadership behaviour styles will be elaborated upon in the following chapter.

Significance of Study.

Although stress can be a powerful motivator and it is an integral part of the role of the contemporary educational leader, it can also have a negative effect. From the researchers' perspective, the role of educational leader is critical to developing a positive

school climate, culture and overall performance of teachers and students. Principal stress may result in a diminished performance that could negatively impact school climate, culture and student and staff performance.

The study was designed to assist educational leaders self-identify their preferred leadership behaviour style and recognize work-related stressors for contemporary leaders. Recognizing and understanding work-related stressors for contemporary educational leaders may help administrators in better managing the potential stressors of the job. School boards can use the information from this study as a guide to develop leadership programs for aspiring and tenured educational leaders that will assist administrators in understanding varied leadership behaviour styles and provide training in stress management to minimize work-related stress. Some strategies that school boards may employ could include mentoring, peer-coaching, focus groups, shadowing, and relevant and current professional development that are tailored to the needs of contemporary administrators.

For the purpose of this study the words educational leader and administrator are used interchangeably.

CHAPTER 2 - REVIEW OF THE LITERATURE

Introduction

The purpose of the study was to determine whether one or more types of leadership behaviour styles (transformational, collaborative, direct/direct-informational, and/or non-directive) are conducive to a reduction in stress for the contemporary educational leader. The literature review provides an analysis of the aforementioned educational leadership behaviour styles which, for the purpose of this study, are relevant to those in the position of vice principal, principal and superintendent. The studies reviewed are generally isolated to the field of education. It was hypothesized that educational leader participants who were either transformational or collaborative in their leadership behaviour style would experience less administrator stress. The researcher further hypothesized that those participants who were non-directive or direct/direct-informational in their leadership behaviour style would experience more stress.

Presented is a review of research journals, books, government documents, and internet sources that are germane to the topic. The review is presented in the following order (a) a historical perspective of leadership theory, (b) leadership impact on student achievement, (c) leadership behaviour styles as measured by the thinking and behaviour styles in the *Life Styles Inventory* [TM][1] (LSI) by Human Synergistics (1989), (d) leadership behaviour styles (transformational, collaborative, direct/direct-informational, and non-directive), (e) stress and its impact, (f) work stressors for educational leaders, and (g) leadership sustainability and succession planning.

[1] *Life Styles Inventory* [TM] is a trademark of Human Synergistics International. Used with permission.

The first section of the literature review provides a brief overview of the evolution of leadership theory. The second section provides evidence that leadership positively impacts student achievement and engagement. The third section describes the connection between the LSI and leadership behaviour styles (transformational, collaborative, direct/direct-informational, non-directive) while the fourth section describes leadership behaviour styles and leadership qualities that support the change process in an educational context. The change process in an educational context is focused on operational and instructional mandates that support student learning. The fifth and sixth sections of the literature review are focused on stress, primarily the gravity of the physiological and psychological impact of stress and specific stressors for educational leaders. The final component of the literature review includes information that may assist school boards in helping educational leaders prepare for assuming, sustaining, and thriving leadership roles.

The importance and vast responsibility of educational leaders is outlined in the Education Act (Milne and MacKinnon, 2008). It would thus be prudent for the educational leader to understand the benefits of leadership behaviour styles in relation to how this understanding may help in achieving and maintaining low levels of stress. Lastly, boards of education may find the study relevant for succession planning and program development to support established and aspiring contemporary educational leaders in maintaining low levels of stress and excelling in operational and instructional responsibilities.

A Historical Perspective of Leadership Theory

Leadership theory has evolved from a production centred approach to a people centred approach. Crawford and Strohkirch (2002) described that the first tradition in leadership education was based on the understanding that the primary purpose behind leadership was to accumulate and use authority and control. LaMonica (2005) argued that classical organizational theory espoused the need to keep workers under close control and coercion to achieve goals. Similarly, Chance and Chance (2002) contended that the scientific management approach standardized tasks and procedures and functioned with a hierarchical chain of command. Kubala (2002) posited that the scientific approach increased efficacy through the division of labour and the allocation of appropriate resources toward the attainment of organizational goals. These initial leadership behaviour styles were very authoritative with a clear focus on maximum human output allowing for minimal human intervention.

Crawford and Strohkirch (2002) contended that as time progressed there was an evolution toward the human resource tradition which focused on the employee as a productive part of the systemic equation. Chance and Chance (2002) described the behavioural science approach espousing a balance between individual worker needs and organizational needs. Kubala (2002) posited that the human resource theorists promoted the concept of empowerment over power as there was a promotion of openness, participation, and collaboration of the team. The human resource tradition began an effort to maximize the potential of workers in the profitable bottom line of the organization.

LaMonica (2005) described that all contemporary management practices were

based on non-classical organizational theory which espoused that workers were self-directed and motivated to achieve organizational goals. Non-classical organizational theory created a shift toward a participative, collaborative leadership environment. There was a focus on leaders and followers collaborating through self-managed teams in an effort to mobilize their collective knowledge into a synergistic outcome.

Lastly, Crawford and Strohkirch (2002) described that there had been an evolution of knowledge management. Knowledge management empowered all organizational members to become part of the learning community in which they could share the knowledge. Each evolution of leadership culture demanded different leadership qualities. The leadership qualities of the new millennium certainly include administrative skills but more importantly highlight humanistic, knowledge, and collaborative skills.

Leadership Impact on Student Achievement

Leadership not only matters, it ranks second only to teaching among school-related factors that affect student learning (Leithwood, et al., 2004; Waters, Marzano & McNulty, 2003). Wang et al. (2003) identified variables related to learning and Waters, Marzano, and McNulty (2003) provided evidence that educational leaders positively impacted student achievement scores. Additionally, Milne and MacKinnon (2008) described the operational and instructional roles of the educational leader that ensured certain variables were secured to create an environment that was conducive to learning. Leithwood and Jantzi (1999) also demonstrated that educational leaders had a positive impact on student learning.

Educational leaders are responsible to ensure that teachers create positive learning

environments to promote student learning. Wang et al. (2003) determined variables related to learning including cognitive and affective school outcomes. The researchers reviewed 5,755 pages from books, government documents, articles, journals, and annual reviews. From this review of the literature they developed a framework of 228 items related to learning, divided into 30 priority scales within 6 broad categories including state and district variables, out-of-school contextual variables, school level variables, student variables, program design variables, and the implementation of classroom instruction and climate variables. The results confirmed that: (a) out-of-school contextual variables, such as peer group influences (M=2.00, SD=.41); (b) student variables such as, the promotion of metacognition (M= 2.08, SD=.36); (c) classroom instruction and climate variables, such as classroom management (M=2.07, SD=.23), the quantity of instruction (M= 2.02, SD=.64), student/teacher interaction (M=2.02, SD= .44) as well as classroom climate (M=2.01,SD=.38) had the greatest influence on student learning. The instructional role of the educational leader is to ensure that all variables are in place to best support student learning.

Waters et al. (2003) determined the impact of leadership on student achievement. Their study included the development of a balanced leadership framework based on a quantitative analysis of 25 years of research, an exhaustive review of theoretical literature on leadership, and the research team's more than 100 years of combined professional knowledge on the topic of school leadership. The research team conducted a meta-analysis of almost 5,000 studies published since 1978 that were focused on school leadership. The team filtered through 70 studies that met the following criteria for design,

controls, data analysis, and rigor which included: (a) quantitative student achievement data; (b) student achievement measured with standardized, norm referenced tests; (c) student achievement as a dependent variable; and (d) teacher perceptions of leadership as an independent variable. The 70 studies included 2,894 schools, consisting of approximately 1.1 million students and 14,000 teachers.

The researchers developed what they referred to as a knowledge taxonomy to organize the literature into the following four categories including experiential knowledge of knowing why it is important, declarative knowledge of knowing what to do, procedural knowledge of knowing how to do it, and contextual knowledge of knowing when to do it. Subsequently, a balanced leadership framework tool was developed by the research team which consisted of 21 key responsibilities of the school leader. The 21 key responsibilities were culture, order, discipline, design of curriculum instruction and assessment, resources, focus, knowledge of curriculum assessment, visibility, contingent rewards, communication, outreach, input, affirmation, relationships, change agent, optimizer, ideals and beliefs, monitors and evaluate, flexibility, situational awareness, and intellectual stimulation. The data from the meta-analysis demonstrated that there was a substantial relationship between student achievement and leadership. The average effect size expressed as a correlation between student achievement and leadership was .25 thus, when leadership improved so did student achievement. When the principal improved in ability with respect to the 21 key responsibilities noted on the balanced leadership framework by one standard deviation (moving from the 50^{th} to the 84^{th} percentile) student achievement increased by 10 percentile points moving from the

50th percentile to the 60th percentile.

Similarly, Waters and Marzano (2006) focused on the effect of school district leadership on student achievement and found a statistically significant relationship between district leadership and student achievement. The sample for the meta-analysis included all available studies that involved district leadership in the United States from 1970 to 2005. Further criteria for inclusion required that studies possessed a reported correlation between student achievement and district leadership, and the use of a standardized measure of student achievement. Of the 4,500 titles retrieved, 27 met the identified criteria. The 27 reports encompassed 2,714 districts, 4,434 ratings for superintendent leadership and an estimated 3.4 million student achievement scores. Additionally, of the 27 reports a total of 14 reports contained information about the relationship between overall district level leadership and average student academic achievement. The computed correlation between district leadership and student achievement was .24 with a 95% confidence interval of .19 to .30.

Further analysis by Waters and Marzano (2006) identified the independent variable as being district level leadership and the dependent variable as the average student achievement scores in the district. District leadership was measured in five district responsibilities composed of (a) goal setting, (b) non-negotiable goals for achievement and instruction, (c) alignment and support of district goals, (d) monitoring of achievement and instructional goals, and (e) use of resources to support goals. When the researchers compared superintendents with similar leadership performance scales (50th percentile), student achievement improved when superintendents demonstrated improved

leadership performance. When study participants performing in the 50th percentile improved in leadership ability by one standard deviation rising to the 84th percentile, given the correlation between district leadership and student achievement of .24, the researchers discovered the average for student achievement in the district increased by 9.5 percentile points with a move from the 50th percentile to the 59.5 percentile.

Reynolds, Timmerman, Anderson, and Stevenson (1992) identified several drawbacks to meta-analysis studies. These drawbacks included (a) dependence on the quality of the reporting of primary analysis findings, (b) dependence on sufficient numbers of eligible studies to justify a statistical analysis, (c) a lack of a universal common metric, and (d) a lack of expert agreement about the best form of statistical analysis. Although the meta-analysis approach does have drawbacks in the Waters et al. (2003) and the Waters and Marzano (2006) studies, there were a sufficient number of previous studies that met the criteria for inclusion in the respective studies and the expert knowledge of the research team (consisting of Waters, Marzano and McNulty) was an asset. Waters et al. (2003) and Waters and Marzano (2006) provided evidence that educational leaders did have a positive impact in improving student achievement scores.

Additionally, educational leaders have the ability to influence student engagement. Leithwood and Jantzi (1999) studied 1,762 teachers and 9,941 students in one large Canadian school board. The surveys used were, the Organizational Conditions and School Leadership Survey and the Student Engagement and Family Culture Survey. The Organizational Conditions Survey contained 228 items measuring five sets of school conditions these included information collection, culture, purpose and goals, planning,

and structure and organization. In addition, two sets of classroom conditions categorized as instructional services and policy and procedures were also part of the Organizational Condition Survey. The Student Engagement and Family Culture Survey contained 61 items measuring student participation in school activities (34 items), student identification (17 items) and student perceptions of their family educational culture (10 items). Their results demonstrated greater effects on student engagement by the principal as compared with teacher sources of leadership. Leithwood and Jantzi (1999) stated the correlation coefficients of the study demonstrated the relationship patterns were similar for both principal (.66) and teacher (.52) roles but not with family educational culture (.32), student participation (.38) or student identification (.40). A stronger significant relationship was evident between principal leadership and school conditions (.56) than in the case of teacher leadership (.29) or family educational culture (.28) and school conditions. Leithwood and Jantzi identified two drawbacks to their research. Although results were considered to be significant, for practical reasons the researchers were unable to use a multi-level analysis to link individual student responses to teachers. In addition, the combining of data from both elementary and junior schools was inevitable as some schools conformed to neither elementary nor junior school configurations. Despite the drawback, the study did provide significant evidence that school leaders play an important role in engaging students in learning.

Leadership Behaviour Styles for the Life Styles Inventory™ (LSI).

The *Life Styles Inventory™* (LSI)[1] is a tool to help leaders analyze their thinking and leadership behaviour style. The 12 leadership thinking styles described in the LSI

include[2]: (1) Humanistic-Encouraging; (2) Affiliative; (3) Approval; (4) Conventional; (5) Dependent; (6) Avoidance; (7) Oppositional; (8) Power; (9) Competitive; (10) Perfectionistic; (11) Achievement; and, (12) Self-Actualizing. Because the LSI measures what motivates the candidate's behaviour which is comprised of thoughts and self-concept, it is a tool that prompts self-discovery. Thoughts and self-concept are the two key components that determine one's behaviour.

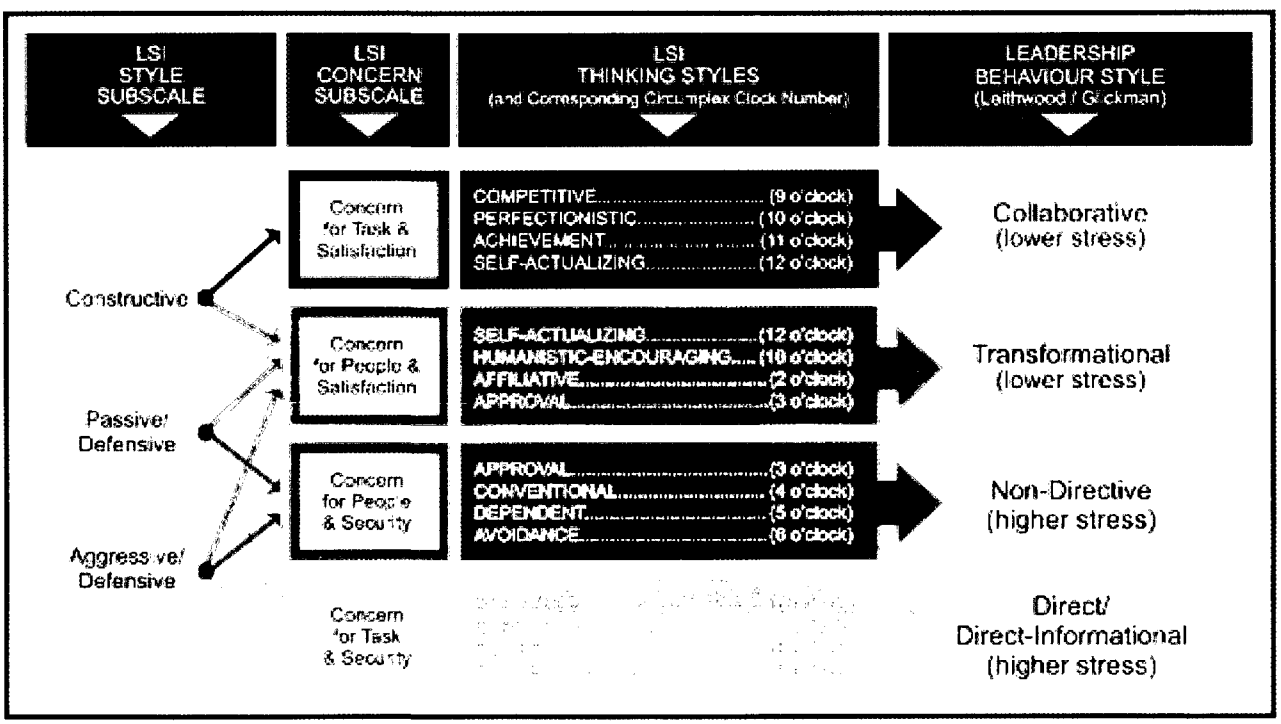
The LSI grid is designed in the shape of a clock with 12 sections on the circumplex, also referred to as the circular grid (Figure 1). Twelve o'clock to 3 o'clock (Self-Actualizing, Humanistic-Encouraging, Affiliative, and Approval thinking styles) comprise a behaviour style of leadership which is concerned with People/Satisfaction which is most reflective of transformational leadership. The range from three o'clock to six o'clock (Approval, Conventional, Dependent, and Avoidance thinking styles) comprise a leadership behaviour style which is most concerned with People/Security and is reflective of non-directive leadership. The range from 6 o'clock to 9 o'clock (Oppositional, Power, Competitive, and Avoidance thinking styles) best describes a leadership behaviour style focused on Task/Security and is most reflective of direct/direct-informational leadership. The range from 9 o'clock to 12 o'clock (Perfectionistic, Achievement, Self-Actualizing, and Humanistic-Encouraging thinking styles) is most concerned with Task/Satisfaction and is most reminiscent of collaborative leadership.

---

[2] All LSI terminology, style names and descriptions: From Life Style Inventory ™ by J.C. Lafferty, Human Synergistics International, Copyright 2009 by Human Synergistics International.. Adapted by permission.

Figure 1(a) refers to the components of the LSI circumplex in relation to: (1) the leadership behaviour styles as described by Glickman et al. (2007) and Leithwood et al. (1999, 2000 & 2002) (transformational, collaborative, direct/direct informational, and non-directive); (2) the three LSI Style subscales (Constructive, Aggressive/Defensive, and Passive/Defensive); (3) the four LSI Concern subscales (People/Satisfaction, People/Security, Task/Security, and Task/Satisfaction); and, (4) the 12 thinking styles with their relative clock position.

Figure 1(a) Flowchart of LSI Circumplex Information

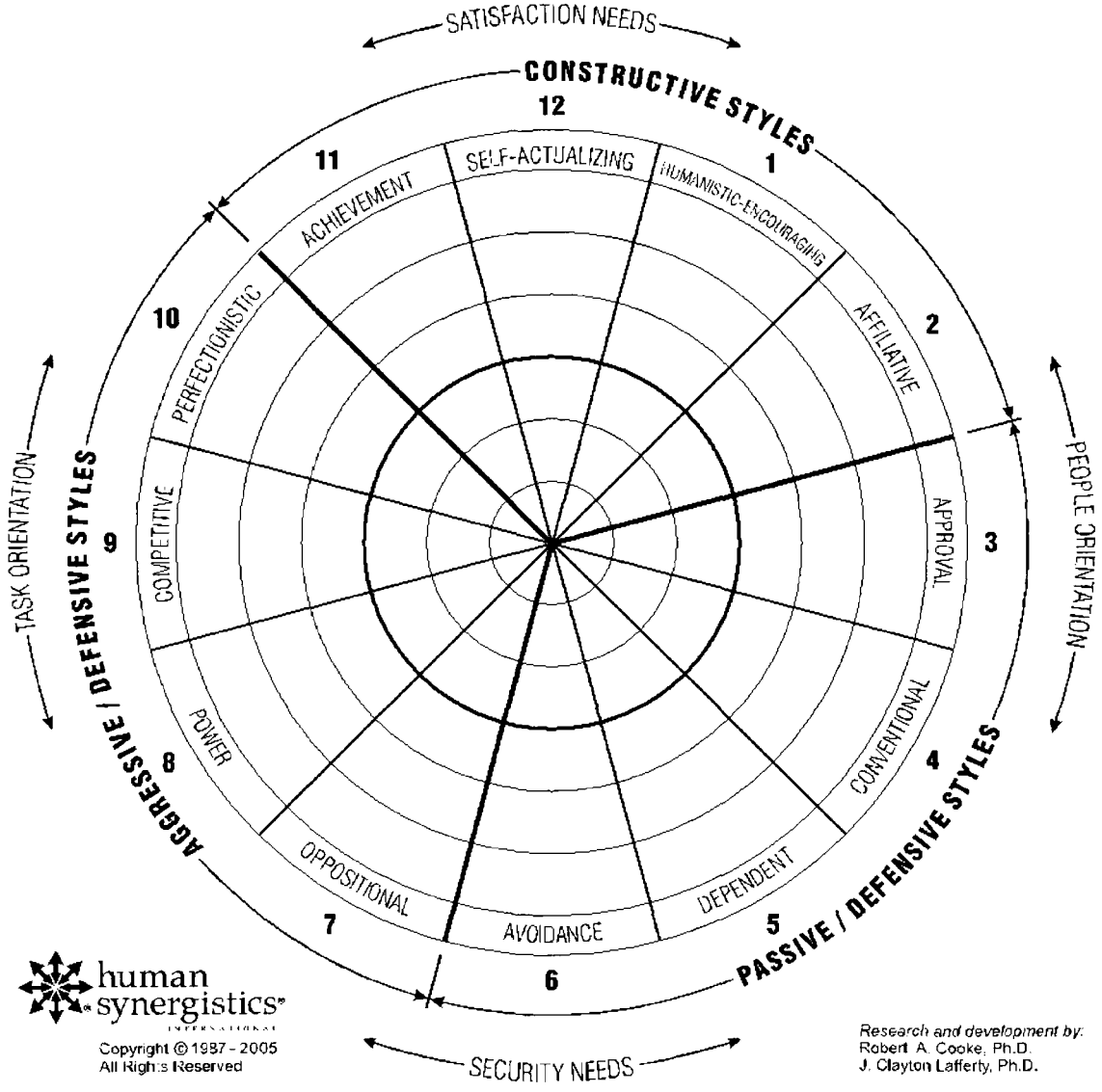


Note: Figure 1(a). The *Life Styles Inventory* ™ (LSI) and LSI style names and descriptions: From *Life Styles Inventory*™ by J.C. Lafferty, Human Synergistics International. Copyright 2009 by Human Synergistics International. Adapted by permission.

Figure 1(b) provides the circumplex depicted in the *Life Style Inventory* ™ used as the

basis of development for the flowchart in Figure 1(a).

Figure 1(b) *Life Styles Inventory* ™ Circumplex by Human Synergistics



Note: Figure 1(b). The *Life Style Inventory* ™ Circumplex. Researcher and Development by J. Clayton Lafferty, PhD. Copyright 1973-2009 by Human Synergistics International. Used by permission.

Table 1 LSI Styles and Leadership Behaviour Styles by Glickman and Leithwood

LSI Style Subscale	LSI Concern Subscale	LSI Thinking Styles	Reflective of Glickman & Leithwood Leadership Behaviour Styles	Overlap of Thinking Styles between Transformational and Collaborative Leadership Behaviour Style	Hypothesis
		Competitive	Collaborative (Glickman)		Less Stress
	Concern for Task and Satisfaction	Perfectionistic			
		Achievement		**Achievement**	
		Self-Actualizing		**Self-Actualizing**	
Constructive			Transformational (Leithwood)		Less Stress
	Concern for People and Satisfaction	**Self-Actualizing**		**Self-Actualizing**	
				Humanistic	
		Humanistic-Encouraging		**Affiliative**	
		Affiliative			
		Approval			
		Approval	Non-directive (Glickman)		Higher Stress
Passive/ Defensive	Concern for People and Security	Conventional			
		Dependent			
		Avoidance			
		Avoidance	Direct/Direct Informational (Glickman)		Higher Stress
		Oppositional			
Aggressive/ Defensive	Concern for Task and Security	Power			
		Competitive			

Items in bold type represent the thinking styles reflective of the LSI Constructive Style and the overlap between thinking found in both Transformational (Leithwood 1999, 2000 & 2002) and Collaborative (Glickman et al., 2007) Leadership Behaviour Styles. *Note:* All LSI style names and descriptions: From Life Styles Inventory ™ by J.C. Lafferty, Human Synergistics. Copyright 2009 by Human Synergistics International. Adapted by permission.

Conceptually, the 12 thinking styles reflect the distinctions between security and satisfaction needs, tasks, and people orientations (Cooke & Rousseau, 1983; Rawlins & Daumer, 1987; Ware, Leak & Perry, 1985). With respect to the security and satisfaction distinction, 7 of the 12 scales are associated with lower-order needs (Concern for People,

Task and Security) and the upper 7 of the 12 scales with higher-order needs (Concern for Task, People and Satisfaction) (Maslow, 1954). Split the opposite way, 7 of the 12 scales reflect a task orientation similar to Stogdill's (1963) initiating structure, Blake and Mouton's (1964) concern for production (Concern for Task/Satisfaction and Concern for Task/Security), and Katz, Maccoby, and Morse's (1959) production-centered behaviour. Additionally, the opposite 7 of the 12 scales reflect a people orientation, similar to consideration, concern for people, and employee centered behaviour (Concern for People/Satisfaction and Concern for People/Security). Refer to Table 2 for the LSI connections to Katz, Maccoby and Morse (1959), Maslow (1954), Stodgill (1963) and Blake and Mouton (1964) theories. These two major theoretical understandings suggest four general areas of Concern: (1) People/Satisfaction; (2) People/Security; (3) Task/Satisfaction; and, (4) Task/Security (Lafferty 1973). These four general areas or personal orientations categorize the factors into 12 leadership behaviour thinking style indices.

Table 2 The LSI In Relation to Maslow, Stogdill & Blake & Mouton

Concern for People and Satisfaction	***Concern for Task & Satisfaction***	**Concern for Task and Security**	Concern for People and Security
Self-Actualizing Style 12 o'clock	***Competitive Style 9 o'clock***	**Competitive Style 9 o'clock**	Approval Style 3 o'clock
Humanistic-Encouraging Style 1 o'clock	***Perfectionistic Style 10 o'clock***	**Power Style 8 o'clock**	Conventional Style 4 o'clock
Affiliative Style 2 o'clock	***Achievement Style 11 o'clock***	**Oppositional Style 7 o'clock**	Dependent Style 5 o'clock
Approval Style 3 o'clock	***Self-Actualizing Style 12 o'clock***	**Avoidance Style 6 o'clock**	Avoidance Style 6 o'clock

The italicized information in the chart refers to Maslow's higher-order needs. The non-italicized information refers to Maslow's lower-order needs. The information bolded refers to Stogdill's (1963) and Blake and Mouton's (1964) concern for production. The plain text information refers to Katz, Maccoby and Morse's (1959) consideration for people and employee behaviour. *Note:* All LSI style names and descriptions: From *Life Styles Inventory*™ by J. C. Lafferty, Human Synergistics. Copyright 2009 by Human Synergistics International. Adapted by permission.

Leadership Behaviour Styles.

To be successful in their responsibilities the contemporary educational leader must be skilled at working with and influencing others. Based on a review of the literature the researcher concluded that the employment of transformational and collaborative leadership behaviour styles would assist in guiding and motivating staff and school communities towards improved student achievement. The educational leader with effective personal competencies has the ability to foster the human connection with staff and community and inspires people to work toward a common goal or vision. Leaders are the key to success in any organization.

Successful educational leaders have exceptional personal and technical skills.

Davis (2006) stated that qualities for educational leaders were classified into two categories: (1) personal competencies; and, (2) technical competencies. Personal competencies were demands of society and technical competencies were demands of the position. Listed in Table 3 are personal and technical competencies.

Table 3 Personal and Technical Leadership Competencies

Personal Competencies	Technical Competencies
Listens effectively, understanding both content and feeling; Validates accuracy of information; Speaks frankly and directly; Positive about life, self and work; Understands learning processes; Understanding of knowledge and research; Satisfied with work; Self motivated; Inspires colleagues; Takes risks and encourages others to do the same; and articulates a purpose and vision.	Professional and ethical; Information management; Curriculum instruction and learning environment; Professional development and human resources; Organizational management; Interpersonal relationships; Financial management and resource allocation; and, Technology systems.

Note. The information in Table 1 is adapted from "Qualities of Effective Leadership: School Leaders Speak" by E. E. Davis, 2006, pp.6-7.

Malone, Sharp, and Thompson (2000) studied preferred leadership skills among 857 principals and aspiring principals in the state of Indiana. Participants were asked to rank-order personal and technical skills deemed necessary to be successful as a school leader including human relation skills, training and experience, leadership, communication skills, organizational skills, honesty, and other. Principals ranked honesty, human relation skills, and leadership as the three most important. Aspiring principals responded with a slight difference, ranking honesty, leadership, and communication skills as the three most important. Both groups noted the importance of personal and technical competencies that are reflective of both transformational and collaborative leadership behaviour styles.

Hay Management Consultants (2000) stated that leadership behaviour styles were techniques used to influence, motivate, and direct others to meet the organization's goals. It is the general impression that leaders tend to have a habitual leadership behaviour style. However, there is no single correct leadership behaviour style. The following descriptions of four leadership behaviour styles are outlined in the context of an educational setting.

Transformational Leadership Behaviour Style.

Burns (1978) described transformational leadership as the ability a leader demonstrated to change the goals of a group whereby the new goals were of a higher level in that once transformed, they represented the collective or pooled interests of both the leader and followers. Eaker, Dufour, and Dufour (2002) stated that transformational leaders change the lives of those around them as they motivate and inspire. Leithwood (1993) stated that transformational leaders foster group goals, convey high performance expectations, create intellectual excitement, and offer appropriate models through their own behaviour. Kouzes and Posner (2002), Leithwood (1993), Bass (2000), and Leithwood and Duke (1998) similarly described transformational leadership behaviour factors that inspire human consciousness and garners support from the collective group for the collective cause.

Kouzes and Posner (2002) wanted to identify factors of transformational behaviour, hence, they conducted a study whereby they had leaders write memoirs of their best and most positive leadership experience. Five clear themes (factors) of leadership including transformational behaviours (products) were identified in the data.

The behaviours found in Table 4 are also known as the ten commandments of transformational leadership.

Table 4 Five Factors and Products of Transformational Leadership Behaviour Style Modified from Kouzes and Posner (2002)

Model The Way	1. Find your voice by clarifying your personal values.
	2. Set the example by aligning actions with shared values.
Inspire a Shared Vision	3. Envision the future by imagining exciting possibilities.
	4. Enlist others in a common vision by appealing to aspirations.
Challenge the Process	5. Search for opportunities by seeking innovative ways to change, grow and improve.
	6. Experiment and take risks by constantly generating small wins and learning from mistakes.
Enable Others to Act	7. Foster collaboration by promoting cooperative goals and building trust.
	8. Strengthen others by sharing power and discretion.
Encourage the Heart	9. Recognize contributions by showing appreciation for individual excellence.
	10. Celebrate the values and victories by creating a spirit.

Note. The information in Table 4 is adapted from "The Leadership Challenge" by J.M. Kouzes & B.Z. Posner, 2002, p. 26.

Kouzes and Posner (2002) described transformational leaders as those who worked to make people feel strong, capable, and committed as they got those with whom they worked to accomplish things that once seemed impossible. Further Howell and Frost (1989) added to the works of others with charisma as a dimension of transformational leaders, suggesting it yielded improved staff performance.

Similar to Leithwood's (1993) behaviours of transformational leaders, Bass (2000) outlined three factors of transformational leadership: charismatic and inspirational, intellectual stimulation, and individualized consideration. The charismatic or inspirational leader envisioned a valued future, articulated how to reach the future, and

set high standards that others wanted to emulate. Intellectual stimulation was when the leader encouraged others to pose questions and to look at old problems in new and inspiring ways. Individualized consideration referred to leaders who treated those around them in such a manner that supported their personal development. Leithwood and Duke (1998) provided additional factors of transformational leadership such as building a productive culture encouraging collaboration among staff and assisting in creating a widely shared set of norms, values, and beliefs which were consistent with the ongoing improvement of services for students; and the enhancement of shared decision making whereby leaders practiced creating opportunities for all stakeholders to participate effectively in school decision making. Transformational leaders exemplified the ability to help group members see the broader perspective and common goals.

Bass (2000) stated that transformational leaders are charismatic and inspirational. The charisma of a leader helps to inspire staff to want to achieve a common vision. Howell and Frost (1989) examined the influence of three different leadership behaviour styles; charismatic, structuring, and considerate leadership. They also examined high and low group productivity norms based on participants' adjustment and performance on a decision-making task. A total of 144 undergraduates completed a task under the direction of either a charismatic, structuring, or considerate leader. Participants individually worked on the task in the presence of two leaders who demonstrated either high or low productivity on the task. Participants working under the charismatic leader, regardless of the directionality of group productivity norms had high task performance, task adjustment, and adjustment to the leader and to the group. Participants working under the

structuring leader and in the high productivity norm group reported higher task satisfaction, and lower role conflict than participants working under the structuring leader and in the low productivity norm group. Individuals with a considerate leader and in a high productivity norm group had significantly higher task satisfaction than those with a considerate leader and in a low productivity norm group. Charismatic leaders yielded higher performance and staff adjustment.

Podsakoff, MacKenzie, Moorman, and Fetter (1990) stated the positive effect of transformational leadership on organizational citizenship while Nguni, Sleegers, and Denessen (2006) described the effect of transformational leadership on job satisfaction, organizational commitment and organizational citizenship. In both studies transformational leaders provided opportunities for followers to strengthen a genuine commitment and sense of citizenship to the organization without coercion or monetary gain.

Moving beyond the identification of leadership characteristics Podsakoff et al. (1990) examined the effects of transformational leader behaviours on organizational citizenship behaviours and the potential mediating roles of trust and satisfaction. Additionally, contingent reward behaviour was considered in the study to test the effects of transformational leadership behaviour style in either augmenting or supplementing transactional leadership (when leaders used conventional reward and punishment to gain compliance from their followers). Measures of transformational behaviours, trust, and satisfaction were obtained from 988 business workers and measures of the employees' citizenship behaviours were obtained from their supervisors. Podsakoff et al. (1990)

identified the six key behaviours associated with transformational leadership behaviour styles found in Table 5.

Table 5 Six Behaviours of Transformational Leadership

- Identifies and articulates a vision of the future;
- Fosters the acceptance of group goals whereby the behaviour on the part of the leader is aimed at promoting cooperation among staff and assisting them to work together toward common goals;
- Conveys high performance expectations: behaviour that demonstrates the leader's expectations for excellence, quality and or high performance on part of the staff;
- Provides an appropriate model of behaviour. The behaviour of the leader sets an example for staff to follow and is consistent with the values espoused by the leader;
- Provides intellectual stimulation: the leader enacts a behaviour which challenges staff to reexamine some of the assumptions about their work and to rethink how it can be performed;
- Provides individualized support: the leaders' behaviour indicates respect for individual members of staff and concern about their personal feelings and needs.

Note. The information in Table 5 is from "Transformational leaders' behaviours and effects on followers' trust in leader, satisfaction, and organizational citizenship behaviours." *Leadership Quarterly, 1 (2),* 107-142.

Citizenship behaviours including altruism, conscientiousness, sportsmanship, courtesy, and civic virtue were obtained from supervisors. Results demonstrated that transformational leadership behaviour styles influenced follower citizenship behaviours indirectly through trust. Following the initial factor analysis of leadership behaviour style measures for both transformational and transactional leadership an examination of the factor intercorrelation occurred. The factor intercorrelation indicated that all correlations were significantly less than 1.00 except among the three transformational constructs (a) articulating a vision, (b) providing an appropriate model, and (c) fostering the acceptance of group goals factors which were approaching or exceeding .90.

Nguni et al. (2006) conducted a study that included 545 primary teachers. This

study examined the effects of transformational and transactional leadership on teachers' job satisfaction, organizational commitment, and organizational citizenship behaviour in the context of schools. Measurement tools included the Multifactor Leadership Questionnaire (MLQ), the Organizational Commitment Questionnaire (OCQ), the Organizational Citizenship Behavoiur (OCB), and the Minnesota Satisfaction Questionnaire (MSQ). A regression analysis showed that transformational leadership dimensions including: (1) charismatic leadership (M=4.01); (2) individualized consideration (M=3.99); and (3) intellectual stimulation (M=3.51) had strong effects on teachers' job satisfaction (M=3.60), organizational citizenship behaviour (M= 4.10), and value commitment (M=4.00) had a moderate positive effect on commitment to stay (M=3.15). Conversely, transactional leadership behaviours had no significant effects on value commitment, organizational citizenship behaviour, or job satisfaction. Transactional leadership behaviours did however have a strong positive effect only on commitment to stay.

Howitt (1999) stated that an organizational leader motivates others to help achieve the common goal. Keegan and Hartog (2004), Leithwood (1994), and Leithwood, Steinback, and Jantzi (2002) demonstrated how leadership behaviour positively contributed to employee commitment and motivation. Employees positively responded to leaders who fostered a sense of community commitment and motivation to achieve a common goal.

Keegan and Hartog (2004) questioned if transformational leadership behaviour style was positively related to employee motivation and employee commitment to the

job. The research was conducted in a large government organization inclusive of project and line managers Researchers found that project managers were considered leaders of a diverse set of employees with minimal direct control whereas, line managers were considered as leaders of smaller teams of employees with more direct functional control. A total of 115 participants responded to a questionnaire including three subscales to measure transformational leadership; charisma and inspiration, individualized consideration, and intellectual stimulation. Results cited showed that transformational leadership correlated positively with commitment ($p = 0.31$) and motivation ($p = 0.31$) in line teams but that there was no significant link between transformational leadership and commitment in project teams ($p = -0.01$). Also determined was a strong relationship with individualized consideration ($p = 0.71$) for employees and line managers indicating a buffer to employees in terms of stress. One conclusion from the study was that employees who perceived their leader as less transformational did not seek social support to the same extent when reporting to project managers.

Leithwood (1994) conducted a four year research project examining transformational leadership in schools with restructuring initiatives. Seven quantitative studies were conducted with large samples of educational leaders and teachers working in restructuring schools (N=289). Surveys were used to collect data for in-school conditions, out-of-school conditions, and transformational leadership. The surveys included items with scales to measure psychological dispositions, and outcomes. Psychological dispositions included teachers' perceptions of school characteristics, teachers' commitment to change, and organizational learning. Outcomes included restructuring

initiatives, teacher-perceived student outcomes, student participation, and student marks. The results indicated that transformational leadership had a significant impact on teacher-perceived outcomes and teacher commitment to change. When sources of teacher commitment to change were considered, transformational leadership had both strong direct and indirect effects on teachers' personal goals. In addition, transformational leadership practice had a significant direct and indirect effect on the progress of school restructuring initiatives and teacher-perceived student outcomes. In-school conditions typically had the strongest direct effects on most of the dependent variables with regression coefficients in the .30 to .50 range. These conditions were directly influenced by transformational leadership practices with regression coefficients in the .60 to .70 range. Out-of-school conditions to a lesser magnitude with regression coefficients in the .30 to .40 range had a similar impact.

Leithwood et al. (2002) examined transformational leadership with a framework designed to determine the evidence of conditions that may have influenced teachers' and administrators' motivation to implement government accountability policies. These motivational processes were a function of the individuals' personal goals, beliefs about one's capacities, beliefs about one's context, and personal emotional arousal processes. Goals, personal or professional, were the objects of a person's commitment to achieve a future desired state. Capacity beliefs incorporated a sense of self-efficacy, self-confidence, and self-esteem. Beliefs about context referred to one's belief in overcoming the context in which one functioned, such as work environment or collegial support. Personal emotional arousal processes referred to feelings that may have arose from

judgments about the desirability of an outcome as well as the capacity and context beliefs.

Leithwood et al. (2002) derived data from 48 teachers and 15 school administrators from secondary schools in southwestern Ontario using a semi-structured questionnaire and guided interviews. One implication from the study was that an educator's beliefs and judgments about a government intention may or may not be accurate. The researchers noted that educators' ability to make sense of a policy influenced their emotional state positively or negatively. The broadest implication from the study linked to a distinction made between control and commitment strategies for bringing about organizational change to enhance student achievement. Control strategies were designed to standardize and regulate school practices. In contrast, commitment strategies fostered creativity and increased educators' commitment to their work.

Leithwood et al. (2002) indicated negative consequences for using control strategies. For example, the majority of teacher comments (88%) expressed disbelief that the government's accountability initiatives were motivated by educational concerns. Only (12%) of teachers identified the intent to benefit students. Administrators were less skeptical as slightly more than half (53%) identified student benefits and slightly less than half (47%) expressed a disbelief that government initiatives were motivated by educational concerns. In addition, the study provided anecdotal evidence that in an otherwise toxic implementation environment, leadership could rebuild conditions to motivate authentic policy implementation. Leadership practices such as helping to clarify the reasons for implementing a policy, empowering teachers to participate in decision

making about how the policy would be implemented, providing resources to assist such implementation, and making available opportunities to acquire the new skills necessary for policy implementation provided support for teachers in implementing initiatives (Leithwood, 2001).

Although altering teacher practice is extremely difficult (Fullan, 2002), transformational leadership can alter teacher practice. Evidence from other sources also demonstrated that leadership practices most likely to build teacher commitment were encouraged with a transformational model of leadership (Geijsel, Sleegers, Stoel, & Kruger, 2009; Geijsel, Sleegers, van den Berg, & Kechermans, 2001). Geijsel, Sleegers, van den Berg, and Kechermans (2001) conducted simultaneous studies with two types of agricultural teachers: (1) prevocational education study (PVE) teachers (N=662); and, (2) senior secondary vocational education study (SSVE) teachers (N=587). The research provided dimensions of transformational leadership that influenced two dependent variables (a) the extent to which teachers changed their teaching practices in accordance with the principles of a current innovation program, and (b) the extent to which transformational leadership influenced the teachers' agreement with principles of a current innovation program. The independent variables included the three dimensions of transformational leadership (a) vision, (b) individualized consideration, and (c) intellectual stimulation. Additional independent variables considered in the study included participation in decision making, professional development, and uncertainty. Results showed (a) professional development activities had a small effect on teacher behaviour in accordance with education principles (R^2=.21), (b) feelings of uncertainty

had a negative effect on agreement with basic education principles (R^2= -.33), (c) participation in decision making was significant but small (R^2= .04), and (d) vision (R^2=.06) and intellectual stimulation (R^2= .22) had a positive indirect effect on teacher behaviour and beliefs.

Transformational leadership behaviour style can positively influence teacher commitment to professional learning. Geijsel, Sleegers, Stoel, and Kruger (2009) examined the importance of teachers' psychological states, school organizational conditions (teacher collaboration and participative decision making), and leadership practices (vision, individualized support, and intellectual stimulation) in explaining the variation in teachers' professional learning. Teacher learning was examined by focusing on their participation in professional learning activities such as keeping up-to-date, experimentation, and reflective practice and innovation. The 54 item Dutch School Improvement Questionnaire was used with 328 teachers from 18 primary schools. Results showed that the organization of the schools involving staff collaboration and participative decision making contributed to increased teacher commitment and identification and a greater sense of teacher efficacy. In respect to leadership factors, vision had no direct effect on teacher collaboration and participative decision making, intellectual stimulation had a significant direct effect on teacher collaboration (R^2 = .42), individualized support had a direct effect only on participative decision making (R^2 =.39), and individualized support and intellectual stimulation had a small indirect effect on internalization of school goals and their participation in professional learning activities (R^2 =.17). One limitation to the study was the limited population which allowed for school variance. As a result

school level variance was not included, thus, collaboration and participative decision making were limited to teacher perception. The results provided support to the argument that transformational leadership practices increased teachers' commitment and participation in professional learning activities.

In addition, Geijsel, Sleegers and van den Berg (1999) conducted two qualitative studies to examine the nature of transformational leadership in relation to teachers' changed practices in the context of large scale reform. The first study determined that transformational leaders led highly innovative elementary and secondary schools by being visionary, demonstrating care for personnel, involving staff in decision making and demonstrating charisma and persuasive skills. The second study sought to determine the dimensions considered as important conditions for changed teacher practices. A total of 1249 teachers participated in the study. Researchers concluded that vision (β = -.10), individual consideration (β = -.26) and intellectual stimulation (β = .14) indirectly influenced teachers changed practices. Vision also directly influenced teachers changed behaviour (β = .26).

Lastly, transformational leadership lessened the sense of emotional exhaustion for staff. D'hoore and Vandenberghe (2001) conducted a study focused on leadership behaviour style, organizational stress, and emotional exhaustion among 625 nurses. Study instruments included the Nursing Stress Index (NSS) and the Multifactor Leadership Questionnaire (MLQ). Results suggested that when head nurses were viewed as employing a transformational leadership behaviour style and as rewarding their staff on a contingent basis, nurses reported less emotional exhaustion. Results also suggested that

having a head nurse who continuously monitored subordinates' performance in order to anticipate mistakes increased levels of emotional exhaustion for nursing staff. Transformational leadership fostered a working environment based on trust and support to increase organizational commitment, while diminishing negativity, and a sense of exhaustion.

Collaborative Leadership Behaviour Style.

The principal as the collaborative leader is the key to the future in education (Fullan & Stiegelbauer, 1991). Glickman et al. (2007) described collaborative leadership as the meeting of minds as equals. Collaborative leadership involves more than a democratic process as it entails an attitude of acceptance and a practice of being equal among the team. Good leaders motivate people not only by articulating a vision but more importantly by involving people in deciding how to achieve the organizational vision (Kotter, 1998; Canada, 2000).

A leader must be sensitive to the collaborative process and exhibit the patience to develop a collaborative environment. Baron (2008) stated that true collaboration included a reception to new ideas, reciprocity, a respect for various perspectives, and an ability to listen to others without judgment and for understanding. Bossi (2008) stated that collaborative leaders must be skilled in facilitating, developing, and encouraging all group members to become skillful contributing members of a team. Friend and Cook (1992) listed the defining characteristics of successful collaborative groups (a) voluntary, (b) parity among participants, (c) mutual goals, (d) shared responsibility for participation and decision making, (e) shared resources, and (f) accountability for outcomes.

Williams (2006) stated that a more collaborative type of leadership was most preferred by female leaders. Williams (1997) used the Decision Style Inventory to gather data of dominant leadership behaviour styles from 173 principals in the province of New Brunswick. The possible leadership behaviour styles identified in the data collection included directive, behavioural, analytical, conceptual, or non-dominant. Directive principals focused on technical decisions and were often autocratic while conceptual principals exhibited strong people skills while sharing control and goals with their subordinates. Behavioural principals focused on social decisions while analytical principals required a high need to control and were often autocratic. Conceptual and behavioural principals demonstrated characteristics that complemented a more collaborative leadership behaviour style. Frequencies of dominant leadership behaviour styles indicated that the conceptual style (23.7%) was the dominant style followed by analytical (22.5%), directive (22.5%), and behavioural (20.8%). Of the principals who did not indicate a dominant style (10.4%) demonstrated the capacity to use a conceptual leadership behaviour style when it would be most appropriate. Nearly another half of the principals (46%) reported the conceptual leadership behaviour style as one of their backup styles. Descriptive statistics however showed a tendency for all principals to have a greater preference for a more analytical leadership behaviour style (M=81.59; SD=13.78) followed by conceptual (M=77.43; SD=13.70). behavioural (M=72.86; SD=14.39) and directive (M=68.09; SD=12.73). The data further demonstrated that female administrators showed a tendency to score higher on behavioural (53.2%; $p<.054$) and conceptual (53.4%; $p<.044$) leadership behaviour styles. Conversely, males showed a

tendency to score higher on analytical (50.7%; $p<.117$) and directive (51.5%; $p<.008$) leadership behaviour styles. Williams concluded that females tended to demonstrate a preference for shared decision making, used multiple resources and were people oriented while males preferred making faster decisions, used less data and were more task oriented.

Additionally, Eagly and Johnson (1990) examined the stereotypical impressions of female and male leadership styles. In a study with 125 female and 181 male Purdue University graduates who received partial course credit for participation in the study, it was determined that consistent with stereotypical impressions, women participants tended to adopt a more democratic or participative leadership behaviour style which are reflective of collaborative leadership versus the more directive or autocratic style exhibited by males. A limitation to the study was that participants were selected based on their attendance in a graduate level course.

A collaborative leadership behaviour style best supports school improvement that promotes professional learning communities. Eaker et al. (2002) described professional learning communities as structures that promote stakeholders' involvement in joint planning, assessment of student growth, and school improvement. Huffman and Jacobson (2003) researched teacher perceptions of their schools as professional learning communities and the leadership behaviour style of their principal. A total of 83 aspiring principals participated in the study. Three possible leadership behaviour styles were used to describe the school principals including directive, collaborative, or non-directive. A 30 item survey was used which focused on the perception of organizational culture,

importance of core processes of professional learning communities, and the difference between leadership behaviour style and the principal as related to core processes of professional learning communities. The results indicated that the collaborative leadership behaviour styles exhibited by principals best supported a professional learning community. There was a significant difference between leadership behaviour styles and organizational culture (0.0001 level, F=16.01). Post hoc analyses were conducted and multiple comparisons revealed statistically significant differences between directive and collaborative leadership behaviour styles of leadership ($p<0.000$) and collaborative and non-directive leadership behaviour styles ($p<0.004$).

Teachers preferred leaders who demonstrated collaborative skills as there is a correlation to a more positive school climate. Mendal, Watson, and MacGregor (2002) examined elementary school principals' leadership behaviour styles in relation to school climate in a Missouri school district. A total of 169 individuals from 34 schools participated. The three leadership styles considered were collaborative, directive, and non-directive. Participants were provided with a survey from the San Diego County of Education Effective Schools project designed to determine leadership behaviour style and school climate. Teacher participants indicated which leadership behaviour style best described their principal (collaborative, directive, or non-directive) and then ranked the school climate on a Likert scale. Findings showed that most (60%) of the principals practiced a collaborative leadership behaviour style which contributed to the highest average scores on a positive school climate followed by a non-directive leadership behaviour style (30%).

Direct/Direct Informational and Non-Directive Leadership Behaviour Styles.

Glickman et al. (2007) described a decisive leader who communicated clear expectations to staff as exercising a direct/direct-informational leadership behaviour style. Williams (2006) stated direct leaders focused on technical decisions and were mostly autocratic and considered minimal solutions to problems. This leadership belief revolved around expertise, confidence, and limited choice on the part of the staff. Conversely, Glickman et al. (2007) indicated that non-directive leadership was based on the assumptions that staff members could think and act independently. Non-directive leadership allowed the decisions to rest with the staff member. The role of the leader was to assist the staff in the process of thinking through his or her actions. The leader kept staff focused on making independent professional choices.

The four leadership behaviour styles including transformational, collaborative, direct/direct-informational, and non-directive provide a varied nuance of leadership for contemporary educational leaders. Each leadership behaviour style may have varying results in behaviour and commitment on the part of the staff. The literature review provides evidence that transformational and collaborative leaders tend to yield greater support and commitment to a common vision among staff members. Both leadership styles foster trust in staff where the leader supports and inspires a collective effort to achieve a common goal.

Stress

It is critical for educational leaders to be aware of the possible negative impact stress may have on their health. Before educational leaders can successfully manage stress, they need to understand it. The following component of the literature review defines stress, describes the psychological and physiological impact of stress, and describes the impact of stress in the workplace.

What is Stress?

Selye (1956) described stress as a common factor of life and a potential contributor to illness. Both distress and eustress were characterized by the same apparent physiological reaction, but the former tended to lead to physical illness, whereas the latter produced a state of well-being and satisfaction. The difference was in the match between the stressor and the person the stress affected, and more particularly, the different attitudes and perceptions of people subjected to the same stress.

Stress is not equal for everyone. How one perceives a situation determines whether it will cause stress, not the situation itself. Stress is a state of dynamic tension created when one responds to perceived pressures from within oneself and the outside environment (Hinckley, 2001; McEwen, 2003; Miller & Dell Smith, 1993; Wolf & Wolff, 1997). Wolff and Goodell (1968) viewed stress as a dynamic state within an organism in response to a demand for adaptation, and since life itself entails constant adaptation, living beings are continually in a state of more or less stress. Gmelch (1996) indicated that stress cannot be avoided. Rather there was a need to control it and try to

use it to one's advantage.

According to Miller et al. (1993) there are four kinds of stress. These are acute, episodic, chronic, and traumatic stress. Acute stress is the most common kind of stress. It is based on the demands and pressures of the recent past as well as the anticipated demands and pressures of the near future. Acute stress can be exciting in small doses, however too much can be extremely exhausting. Symptoms of acute stress can include tension, headaches, and upset stomach.

An individual experiencing episodic stress is considered to be a pessimist and demonstrate a negative attitude. It is very common for people with episodic stress to be short tempered, irritable, and anxious. Symptoms of episodic stress include persistent tension headaches, hypertension, chest pain, and heart disease.

Chronic stress creates physical and emotional havoc through long term attrition. It is referred to as the stress of poverty and dysfunctional relationships. Chronic stress often stems from traumatic early childhood experiences that become internalized and remain as painful memories. Kendall-Reed and Reed (2004) noted that those who suffer from chronic stress demonstrated fatigue, poor mental and physical performance and, serious life threatening diseases. Those who suffer from chronic stress often die from suicide, heart attacks, stroke, or cancer prior to life expectancy.

Traumatic stress involves an overpowering trauma such as an accident, sexual assault, a near death experience or verbal, physical, psychological or sexual abuse. Traumatic stress is greater in cases where the trauma is repeated and there is little hope for escape. Individuals who suffer from traumatic stress experience depression, anxiety,

behavioural disorders, multiple personality disorder, or even commit suicide.

The Psychological and Physiological Impact of Stress.

Goleman (1995) described that even in the early stages, stress has a physiological impact as it weakens the adrenal glands, stomach lining, and immune system. If stress is unrelieved, it eventually leads to the breakdown of vital body systems, causing heart attacks, strokes, degenerative disease, and cancer. Goleman (1995) indicated that people who suffered from chronic anxiety, depression, pessimism, hostility, cynicism, or suspiciousness had been found to have two times the risk of disease such as ulcers or heart attacks. Selye (1956) exposed laboratory animals to various stressors over periods of time and observed the detrimental effects of arousal. Some of the effects included the enlargement of the adrenal gland, atrophy of the spleen, thymus and lymph nodes, disappearance of a specific kind of white blood cell, and the development of bleeding ulcers in the lining of the stomach. McEwen (2003) also claimed that chronic stress could take a toll on the immune system making individuals more susceptible to colds, infections, anxiety and some depression.

Stress has detrimental health effects. Williams and Cooper (2002) listed physical and behavioural indicators which are symptoms of stress. The indicators of stress included altered sleep patterns, tiredness, lethargy, breathlessness, bowel disturbances, headaches, loss of sexual drive, muscle tension, nervous twitches, irritability and aggression, anxiety, apprehension, poor decision making, deterioration in recent memory, feelings of failure, lack of self worth and isolation. According to the Heart and Stroke Foundation of Ontario (2000) people with high levels of stress may experience increases

in blood pressure and heart rate, have higher cholesterol, and have blood platelets that are more likely to clot inside a blood vessel.

Seyle (1974) claimed that stress leads to a process that enables the body to resist a perceived stressor in the best possible way by enhancing the functioning of the organ system best available to respond to it. This process is known as the General Adaptation Syndrome (GAS) which has three stages. The three stages are alarm reaction, resistance, and exhaustion. The first stage, alarm reaction, is characterized by an increased adrenocorticotropic hormone (ACTH) which stimulates the adrenal gland. The body shows a stress arousal but no specific organ system is affected. The second stage, the resistance stage, decreases the ACTH. "Adaptation" occurs when the stress response is channeled to a specific organ most capable of dealing with the stressor suppressing it. The adaptation process and chronic resistance stage contribute to stress related illnesses and ailments. In the third stage, the exhaustion stage, ACTH increases and there is an alarm type of reaction whereby the organ system is directly affected. In this phase malfunction of an organ or death can occur. See text Table 6.

Table 6 Three Stages of General Adaptation Syndrome

The Alarm Reaction Stage	The initial shock phase of lowered resistance is followed by counter shock during which an individual's defense mechanism becomes active. This stage is commonly characterized by autonomic excitability, adrenaline discharge, increased heart rate, muscle tone and blood content changes, and gastrointestinal ulceration.
The Resistance Stage	This is the stage of maximum adaptation and hopefully, the successful return of equilibrium for the individual.
The Exhaustion Stage	If this stage continues or the defense does not work in stage 2 the individual will move onto stage 3 exhaustion where adaptive mechanisms will collapse.

Note: The information in Table 6 is adapted from "Stress Without Distress" by H. Seyle, 1974.

McEwen (2003) indicated that stress begins in the brain when the hypothalamus sets off an alert to the adrenal glands. The adrenals respond by emitting stress hormones such as adrenaline. The pulse will start to race sending extra blood to the muscles and organs. Extra oxygen reaches the brain which helps the person to become more alert. Adrenaline also triggers a substance called fibrinogen which speeds up blood clotting as a defense mechanism against the loss of blood. In addition, adrenaline mobilizes the body to break down and release fatty acids from stored fats, thus providing a ready source of energy. During this natural fight or flight response, the brain also releases natural pain killers called endorphins to keep the body functioning during the crisis. The second wave of defense is the brain eliciting the assistance of the hypothalamus pituitary adrenal (HPA) axis. It is here in the nervous system that everything is kept in balance. When the HPA is functioning appropriately a person has the ability to cope with stress. A physical ailment such as a cold, asthma attack, or other health issue may be a manifestation of the HPA being off balance.

It is important to note that an absence of stress symptoms does not mean that one is stress free. Minor symptoms of stress such as fatigue or a minor cold are early warnings signs. Sometimes people try to camouflage symptoms which can cause greater strain on the physiological system. It is worthwhile for the contemporary educational leader to take notice of the impact of stress in their professional lives.

General Job Impact.

Immen (2004) noted that each year 25% of Canada's labour force experiences a mental disorder that affects their work. Annually, Canadians suffer from an array of

mental disorders resulting in 35 million days of work lost at a cost of $30 billion in lost productivity and cost to companies' disability payments and staff replacement. Immen (2004) stated that yearly 400,000 Canadian workers go on short or long term disability for mental health related illnesses accounting for 35% of all insurance claims for disability. From an American perspective Cooper, Lawson, and Price (1986) indicated a steady increase in morbidity with stress related diseases such as coronary heart disease and alcoholism, especially in the working age range of the population. The total cost to industry from all forms of stress related illness, a high proportion of which may be attributed directly or indirectly to the working environment, has been estimated as 1% to 3% of the gross national product in the United States (Cooper & Smith, 1985). Mind Tools (2001) identified work sources of stress to include factors intrinsic to the job such as physical working conditions, shift work, work overload, physical danger, person-environment fit and job satisfaction, role in the organization, career development, work relationships, organizational structures, and home-work pressures.

Bosma, Peter, Siegrist, and Marmot (1998) described the Effort/Reward Imbalance (ERI) model as when on a chronic basis, effort (the mental or physical energy expended to achieve an organizational goal) exceeds reward (compensation for or acknowledgment of effort in terms of bestowed status, financial gains, career advancement). In this circumstance, a state of strain is likely to be produced which in turn can lead to a variety of adverse health outcomes. Bosma et al. (1998) conducted a logistic regression analysis based on a prospective cohort study comprising of 6,895 men and 3,413 women aged 35 to 55 years. Baseline measures of job stress models were related to

new reports of coronary heart disease over a mean 5.3 years of follow up. The imbalance between personal efforts and rewards was associated with a 2.15 fold higher risk for new coronary heart disease.

Smith, Roman, Dollard, Winefield, and Siegrist (2005) noted in two studies with a combined group of 220 participants from three metropolitan communities in Adelaide, South Australia that if there was an ERI there was a significant relationship with Cardio-Vascular Disease (CVD). Participants from three different areas of social economic status (SES) were involved. A 23-item scale measured the ERI. Extrinsic effort (alpha=0.75) was measured by 6 items. Reward (alpha=0.85) was measured by 11 items, which was further broken down into status, esteem, and security rewards. Responses were scored on a Likert scale. The initial study suggested that individuals who suffered from ERI had the propensity to feel angrier than those who were not experiencing ERI. Subsequent findings indicated that there was a small but significant correlation between CVD symptoms and feelings of anger $r(109)=0.23$, $p<0.05$. Furthermore, ERI was associated only with the trait anger $r(109)=0.22$, $p<0.05$.

Situations that involve effort and distress as well as distress without effort can have physiological consequences. Corley, Mauck, and Shiel (1975) conducted an experiment whereby six pairs of monkeys were confined to chairs for 8 hours a day. One of the monkeys had to turn off the light once a minute in order to prevent the delivery of shock to the tails of both monkeys. The monkeys with the responsibility for the light, that is, the monkeys in the situation involving effort and some distress maintained physical activity and developed hypertension, indicating excessive sympathetic arousal, and also

myocardial fibrosis (a virus in the heart that causes cardiac malfunctions). Of the 6 monkeys who were incapable of responding, and would be considered to have been in a distress without effort situation, five collapsed with bradycardia (a resting heart rate of under 60 beats per minute) and four died. Lazarus (1976) pointed out that an essential factor in the individual's response to stress involves the person's appraisal of the stressor and the way the person copes with the situation. Hence, if a stressor does not outweigh a person's ability to cope effectively, the effects of the stress will be minimized. Whereas when coping is ineffective and the stress is prolonged the effects of stress will be apparent.

Work Stressors for Educational Leaders.

The role of educational leader is viewed as stressful. School boards consistently reported an increasing shortage of applicants to fill educational leadership positions in the elementary and secondary panels (Canadian Association of Principals, 1999, 2000, 2003; D'Arbon et al., 2001; Educational Research Services, 1998; Grimmett et al., 2000; Independent Schools Queensland, 2006; McIntyre, 2005; Williams, 2001). Teachers were not interested in applying for leadership positions as they view educational leadership positions as stressful. Terrill (1993), Allison (1997), Davis (2006), Whan and Thomas (1996), Malone et al. (2000), Grimmet and Echols (2000), the IEL (2008), Howley, Pendarvis, and Gibbs (2000), and Cooley and Shen (2000), discussed deterrents to assuming the role of educational leader while Brock and Grady (2002) highlighted the multi-faceted nature of the job and work stressors experienced by educational leaders.

There has been a shift in stressors for educational leaders in the last 15 plus years.

Terrill (1993) determined that the primary sources of stress for educational leaders included isolation, a lack of control over personal issues, the amount of time that must be given to maintenance and building related items, and the lack of time for instructional matters. Allison (1997) assessed stress among 643 public school principals in British Columbia using the Administrator Stress Index (ASI) and the Demographic and Biographic Inventory (DBI). The findings showed that lack of time, heavy workload, and conflicts between parents and the school are major sources of stress for educational leaders. Williams (2001) also identified the top key dissatisfiers for principals in Ontario. These included (a) perceived problems with the management and implementation of provincially mandated changes for accountability purposes, (b) the lack of availability of financial and human resources at the school level, and (c) time demands. New accountability requirements such as a standardized curriculum, reporting process, testing process and parental involvement are significant changes for educational leaders in the last decade and are an additional source of pressure. Much of the pressure created by government mandates were caused by the lack of resources needed to address them. Without financial and human resources to assist with the mandates little if any improvement will occur.

The educational leader experiences stress when there are two or more incompatible directives, such as high curriculum expectations and not enough resources and support for professional development. Contemporary educational leaders will be confronted with decreasing financial support, increasing demand for accountability to improve academic quality, the challenge of addressing the needs of special education and

English language learners, and contending with a low social economic status (SES) for a larger student demographic (Davis, 2006; Whan & Thomas, 1996).

Malone et al. (2000) conducted a study with aspiring principals (N=55), principals (N=581), and superintendents (N=221) investigating administrator perceptions of what they considered to be job barriers for present and aspiring educational leaders. Stress of the job was perceived as the most serious barrier by principals and aspiring principals. Superintendents however, perceived stress on the job as the third most serious barrier preceded by insufficient compensation in comparison to the responsibilities of the job and the amount of time required to fulfill job responsibilities.

Grimmet and Echols (2000) studied deterrents to becoming an educational leader in British Columbia. Researchers determined that 54% (N=18,533) of educators in the province were between 40 and 54 years of age with a provincial average retirement age of 57 years. Additionally, 75% (N=1,167) of administrators ranged from 45 and 54 years of age with the average retirement age for principals being 57 years of age. Results indicated that the more tenured teachers had become cynical and disenchanted with the idea of administration. In addition, the study found that a sense of an adversarial state between administrators and teachers accounted for the decreasing number of highly capable people taking on administrative roles. The aging teacher demographic, as well as the dramatic changes in the school administrative role in the last ten years in addition to increased work stress, had negatively impacted the number of aspiring administrators in British Columbia.

The IEL (2008) indicated that the major deterrents to entering a leadership

position included job stress, increasing job demands, and negative impact on the quality of life. Similarly, in a study by D'Arbon et al. (2001) it was found that of the 1,024 respondents, 52% were unwilling to apply to a position of added responsibility. Respondents reacted to 47 perceptual statements to determine why people might not be influenced to apply to positions of the principalship, and they were also invited to provide written responses. The number one reason respondents would not apply to the principalship was the impact on the principals' personal and family life (frequency response rate of 40.3%). Additional reasons included high accountability and responsibility expectations, time pressure, and excessive work load resulting in stress.

Howley et al. (2000) collected 508 surveys from 826 principals in Ohio on the topic of deterrents that would prevent individuals from applying to a superintendent position. The researchers used an instrument with a 4-point Likert scale which included 19 variables related to conditions that would affect potential candidates on their decision to pursue a position as a superintendent. The principals identified problems related to the role of the superintendent which included: (a) increased responsibility for local, state, and federal mandates (M= 3.08); (b) having to be accountable for outcomes outside of any educator's control (M = 2.94); (c) not enough support from the board (M = 2.90); and, (d) excessive pressure to perform (M = 2.90). Also identified were (a) stress associated with anticipated conflict with teachers' unions (M= 2.75), (b) increased work load (M = 2.64), and (c) lack of clarity about job expectations (M = 2.45). A confirmatory factor analysis was conducted to detect strong associations between appealing and unappealing survey variables. The analysis showed that the significant factors comprised of associated items

explained 50.53% of the variance on the instrument and corresponded to three themes related to job satisfaction and making a difference, distress associated with the difficulty of the job, and satisfaction with extrinsic rewards such as salary. The job difficulty scale was most salient as responses suggested that the focus on accountability may have added to the stress of being a superintendent.

Cooley and Shen (2000) conducted a study investigating how urban teachers and principals perceived the importance of the factors influencing individuals to refrain from applying for principal positions. Of the 874 respondents a significant positive rank order correlation between teachers and principals was evident in the similar ranking of factors deterring individuals from applying to principal positions including impact on home life, low salary, poor working conditions, lack of community or board support, poor relationships with board administrators and/or teachers, and emotional aspects. In addition, urban teachers noted personal safety, quality of life, and lack of community support among the most important deterrents. Urban principals, on the other hand noted stress of the position, lack of respect for educators, and school board micromanagement of schools among the top deterrents.

According to Brock and Grady (2002) educational leaders' stress emanated primarily from day-to-day situations that were derived from their multifaceted roles, considerable time constraints, work overload, frenetic pace, continual shifting of gears, interpersonal conflicts, isolation, and organizational structures. Common stressors for educational leaders are listed in Table 7 (Brock et al., 2002).

Table 7 Common Work Stressors for Educational Leaders

Time constraints	Paper work
Variation of job responsibilities	Telephone interruptions
Visitor Interruptions	Student misbehaviour
Parent Groups and Parental Complaints	Too many meetings
Conflicts among staff and between parents and teachers	Militant teachers
Night time activities	Unprofessional teachers
Making decisions that affect others	Teacher apathy
Staff evaluations	Negative staff members
Inadequate performance of an employee	Rumour control
Terminating teachers	Assemblies
Writing critical evaluations	Unclear expectations
Gaining community support	Inadequate feedback
Lack of support from superiors	Poor facilities
Lack of parental support	Vandalism
Lack of resources, supplies and funding	Feelings of inadequacy
Lack of social life	Lack of recognition
State and Federal regulations	Dissatisfaction with salary
	Dissatisfaction with career advancement

Note. Information in Table 7 is from "Avoiding Burnout: A Principal's Guide to Keeping the Fire Alive' by B.L. Brock and M.L. Grady (2002).

Generally, increasing job demands, lack of support, time pressures, and stress were troublesome to present administrators and deterrents to future administrators (CPCO, 2004; & Educational Research Service, 1998).

In a qualitative study, Kochan, Spencer, and Matthews (1999) examined the principalship in Alabama. Principals in Alabama (N=1303) were asked to provide personal demographic information that focused upon the three greatest challenges and stressors faced as a starting administrator and the three most significant ways in which the educational leaders position has changed in the last five years. The nature of the questions was meant to evoke first hand experiential knowledge from those closest to the principalship. Of the surveys distributed 42% of principals responded. A total of 90% were 40 years of age or older, 63% were male and 37% were female. Male and female administrators identified four themes in response to the question asking for the top three challenges for new administrators. The four themes were financial management and

funding, enormity of the job, personnel and communication, and student discipline and behaviour.

According to Whan et al. (1996) thwarted expectations also caused stress for educational leaders. Educational leaders placed a high value on good work, effective teaching, and integrity of the job. They experienced stress when dealing with difficult teachers whose value systems were contrary to their professional expectations of the role of the teacher. Whan et al. identified the following teacher behaviours as producing stress for the educational leader (a) sitting at their desk rather than moving around the classroom, (b) being late for supervision responsibilities, (c) inadequate lesson preparation, (d) using removal from class or a trip to the principal as punishment, (e) blaming others for problems, (f) discourteous treatment of others, (g) being late with administrative chores, (h) having a negative attitude, and (i) complaining about work issues. In addition, Whan et al. described administrative issues that compounded the stress levels for educational leaders which included implementing government related mandates, work overload, finding substitute teachers for teacher absences, staff meetings dealing with controversial issues, working with uncooperative parents, school break-ins, theft and vandalism, time constraints, extra curricular duties/meetings that were outside of school hours, working in isolation, lack of resources for a task, lack of appreciation, and lack of control with some decisions.

Although there are studies that indicate that stress for educational leaders is a deterrent to recruiting new administrators and a dissatisfier of present administrators there is little evidence to indicate a relationship between the level of educational leader

stress and leadership behaviour style. One study showed that educational leaders who exercised a lesser Machiavellian style were less stressed in performing management tasks. Fortin (1989) concluded that Machiavellian school leaders were more susceptible to feeling stress tied to administrative tasks that were part of their operational responsibilities. In contrast, Yackel (1984) conducted a study with 122 male principals in rural Saskatchewan and determined there was no relationship between leadership behaviour style and the sources, frequency, and intensity of administrative stress. Yackel predicted that because certain types of stress and leadership style appear to correlate with control that there may exist a relationship between leadership behaviour style and administrator stress. Yackel employed the Least Preferred Co-Worker rating scale and the ASI to statistically measure frequency and intensity of the sample that was divided into a relationship-oriented group and a task-oriented group. Results indicated that task-oriented principals and relationship-oriented principals perceived themselves similarly in terms of total frequency and intensity of administrative stress.

Educational administrators are constantly urged to do more and over extend themselves which may result in stress and adverse health effects. It is not surprising that it is difficult to attract individuals to the position of a contemporary educational leader (Canadian Association of Principals, 1999, 2000, 2003; D'Arbon et al., 2001; Educational Research Services, 1998; Grimmett et al., 2000; Independent Schools Queensland, 2006; McIntyre, 2005; Williams, 2001). The senior administrative positions and that of the school leader are exhaustive roles as their focus is to improve student achievement (Leithwood et al. 2004, Waters & Marzano, 2006; Waters et al. 2003).

Kasar, Mundry, Stiles, and Loucks-Horsley (2006) stated that, "without supportive and proactive leadership, the increased pressure for high performance can be exhausting and demoralizing" (p. 1). The contemporary educational leadership role is crucial in providing the vision, strength, and support to teachers in efforts to improve student learning. Contemporary educational leaders experience stress and unfortunately, no matter how resilient the leader is, there is a maximum stress level for everyone. Consequently, the ability to handle increasing job demands and manage stress is imperative for the contemporary educational leader.

Leadership Sustainability and Succession Planning

Leadership sustainability and succession planning are critical to school and system effectiveness. An education system is only as strong as the system leadership. Leithwood, Day, Sammons, Harris, and Hopkins (2006) stated that second only to classroom instruction, leadership was ranked as the most influential factor to student learning. Without ensuring a quality leadership support system, transformations could not be accomplished (Fullan, 2001; Hargreaves & Fink, 2004). The National College of School Leadership (NCSL) in England provided a report entitled, *What We Know About School Leadership* (2006) which stated that the education system needed leaders who created fundamental changes in the learning cultures of schools that positively impacted teaching and learning.

The MOE data in 2005-2006 indicated that there were a total of 4,385 principals in Ontario schools, of which 83% (N= 3,639) were elementary school principals and 17% (N= 746) were secondary school principals. The 2005 - 2006 data indicated that just over

one third of elementary school principals (37%) and almost half of secondary school principals would reach their 85 factor (the minimum required for an unreduced pension with the Ontario Teacher Pension Plan for members whose age and qualifying years of service equals 85) by 2008 and would, therefore, be eligible to retire. There is a challenge to replace principals in Ontario schools, particularly at the secondary level.

Additionally, according to the IEL (2008) the MOE data in 2005-2006 also indicated that there were a total of 2,695 vice principals working in Ontario schools, 60% (N=1,617) worked in elementary schools and 40% (N=1,078) worked in secondary schools. The study showed that, on average, vice principals were younger than principals, their average age being 45-47 years compared with an average of approximately 50 years for principals. Given that the vice principals were generally younger the largest proportion of vice principals (53% elementary and 39% secondary) were projected to reach the 85 factor in 2018 or beyond.

In terms of supervisory officer demographic information, according to the IEL (2008) report the MOE had very limited data. Aggregate data was available from the 20 boards participating in the Learning Partnership study and from the OCT data of member qualifications. The study included 527 supervisory officers in the 2005–2006 cohort of which 55% (N= 289) were male and 45% (N=238) were females. No data as to projected retirement dates of supervisory officers in the participating boards was available. The IEL (2008) report indicated that OCT members with supervisory officer qualifications had decreased slightly over the past five years, from 1,811 in 2003 to 1,776 in 2007. Of the 1,776 members with supervisory officer qualifications in 2007, 25% were less than 50

years of age and 75% were older than 50 years of age. The data refers to individuals who had successfully completed qualification courses, including those who were retired, assigned to the job or still in school site administrator positions.

Due to the looming administrator shortage in Ontario and as attrition equalizes, the challenge will shift from filling vacancies with the right candidate to keeping experienced school and system administrators positively engaged and effective in their roles (CAP, 1999, 2000, 2003; McIntyre, 2005; Williams, 2001). Hargreaves and Fink (2004) stated that effective succession planning means having a plan which is coordinated to ensure a flow of leadership across the span of many years and numerous people. Developing a succession plan for educational leaders is paramount.

During 2007-2008 the NCSL studied the background of leaders whose leadership and management were judged as outstanding by England's governing body, the Office for Standards in Education (Ofsted). The mandate for Ofsted is to inspect and regulate education and training for all learners of all ages in England. Surveys were sent to 500 school leaders with 313 responses. In addition, focus interviews were conducted with 18 school leaders. In the NCSL (2009) report entitled, *Developing Outstanding Leaders: Professional Life Histories of Outstanding Headteachers* reporters noted that 21 different factors were found to influence leadership career journeys. Among the highly rated factors included were professional development (42%), professional relationships (51%), and inspiring role models (47%). In the NCSL (2009) report, researchers recommended that professional development opportunities for aspiring leaders should be focused on (a) demystifying the job, (b) developing an understanding of educational leadership, (c)

reflection, (d) challenging thinking to see the bigger picture, and (e) shaping a vision and philosophy of education and leadership. Furthermore they identified that professional development was best received when organized in a social context. Weindling (2000) suggested organizational socialization as a layer of leadership development with organizational socialization being a process by which one learns the knowledge, values, and behaviours required to fulfill the demands of a specific role within the organization while on the job. Lastly, the NCSL (2009) report strongly suggested that professional relationships and inspiring role models were also critical to developing effective leaders while early career intervention in the form of mentorship and coaching were considered very important to building leader confidence.

In the NCSL document entitled, *Leadership Succession: Securing the Next Generation of School Leaders* (2006) various strategies were suggested to ensure leadership development sparks interest in the role of an educational leader. The strategies included: (a) internships whereby potential leadership candidates were given the opportunity to "try out" the job: (b) the development of protocols to widen the "talent pool" that would ensure the inclusion of various minority groups: (c) "talent-spotting" to identify and recruit potential leaders and accelerate leadership development opportunities in a wide range of contexts such as urban, rural, small, large and/or multi-ethnic school settings; and, (d) opportunities to lead beyond the school context such as in the role of a coach or consultant.

Bush, Glover, and Harris (2007) described a continuum of leadership learning ranging from a traditional model to a 21st century model. The traditional model described

prescribed, standardized, off-site, classroom-based, and content-rich leadership development. Lewis and Murphy (2008) stated that, although both models had value, the 21st century model where learning was personalized and focused on process rather than content would more likely to be transferred into leadership practice. Further, leadership development described as having experiential learning sessions, structured supports allowing for face to face interaction (such as mentoring, peer coaching or focus groups), project-based work, team experiences, field visits, and simulations of real and relevant experiences may better impact the affective aspects of educational leadership.

Parkay and Hall (1992) provided four basic assumptions which supported the varied levels of leadership development including (a) leaders being at different stages of development, (b) leaders' develop through stages at different rates, (c) no single factor determines a leaders' state of development, and (d) a leader may operate at more than one stage simultaneously. They created a five stage model to describe the career pattern of development of new educational leaders which included (a) survival, (b) control, (c) stability, (d) educational leadership, and (e) professional actualization. Accordingly, programs should be developed and accessible to leaders to support and strengthen their leadership throughout their professional continuum of growth and development.

Cooley and Shen (2000) suggested that systemic support must be provided to build interest in leadership positions to support educational leaders once they are in the leadership role. Reducing workload, adjusting compensation, modifying the lengthy workday, providing more staff supports, and designing sustainable quality identification and training programs, internships, teacher-in-charge programs, and leadership academies

were crucial to developing the right conditions to encourage teachers to become educational leaders.

Hargreaves and Fink (2004) stated that sustainable leadership systems provided intrinsic and extrinsic incentives to attract and retain leadership candidates. Such incentives included time to network, mentorship, and professional development. Sustainable leadership could not be left to individual leaders to create and maintain. Sustainable leadership was the responsibility of the school board to build and support, to meet the changing demands of the complex world and the evolving profile of the contemporary educational leader.

Potential educational leaders need both intrinsic and monetary incentives. The CAP (2003) noted that various provinces across Canada offered incentives for potential educational leaders to apply to leadership positions. The Province of Quebec offered a two year leave of absence with a guarantee of a return to their original teaching position to encourage individuals to gain on the job training as administrators. The Province of Manitoba offered funding to attend conferences every three years, support for any provincial training, and increased administrator allowances as incentives for potential administrator candidates. The Province of Saskatchewan ensured greater school autonomy to administrators. In addition, boards throughout the nation offered mentoring programs and a variety of professional development opportunities for aspiring and present educational leaders.

Thomson, Blackmore, Sacks, and Tregenza (2003) suggested a strategy to build greater interest in the role of the educational leader that would include moving the focus

to the reasons why the job is worth doing and away from the unattractive aspects of the job. Thomson et al. further described that the role of the educational leader provided for the possibility to work with a team of dedicated people, the opportunity for learning, the contribution to a common endeavour, a position of autonomy and flexibility and, an opportunity to shape and influence others in a community. Presenting the leadership position as one that is desirable by focusing on the positive aspects of the role may help potential candidates consider pursuing the role.

The IEL (2008) report indicated that 2005-2006 Learning Partnership Study gathered evidence of effective succession planning through focus group interviews and data collected with the Succession Planning Ontario Survey with educational leaders from 20 participating boards. From the 1,273 vice principals, principals, and supervisory officers surveyed, the best practices identified to support succession planning for contemporary educational leaders through current, active, and interpersonal strategies included mentoring, placements in temporary administrative assignments, professional development that was current and practical, training that was provided by current leaders, training that was responsive to the needs of participants, internships, networking, job-shadowing, the provision of a leadership framework, and hands on learning. CPCO respondents noted that the faith component of training was also very important. Other successful succession program practices mentioned were the provision of time, support in preparing for interviews, and having the opportunity to listen to speakers from outside of the board. Provincial organizations such as OPC, CPCO and the Association des Directions et Directions Ajointes des Ecoles Franco-Ontariennes (ADFO) emphasized

that continuous training and mentoring were crucial to the ongoing success and development of the leadership cadre in the province.

Lastly, data must be continuously gathered to examine the attitudes and views of potential and present leaders. The new generation of educational leaders is very different from the previous one. It would be prudent for boards to ensure they understand the values, attitudes, and aspirations of the contemporary educational leaders in order to best meet their needs.

Research Question and Hypotheses

Does leadership behaviour style correlate with stress for the contemporary leader? Based on the information in the literature review, the researcher predicted that the leader who exhibited transformational or collaborative leadership behaviour styles would experience less administrator stress. Both leadership styles foster trust in staff where the leader supports and inspires a collective effort to achieve a common goal. Trust and commitment encourage a more cooperative work setting that may be less stressful. Research study participants who matched LSI Concern subscale for People/Satisfaction (Self-Actualizing, Humanistic-Encouraging, Affliliative and Approval or the LSI Concern subscale for Task/Satisfaction (Self-Actualizing, Achievement, Perfectionistic and Competitive) would experience less stress on the job as evident in Table 1 (see page 23) and the conceptual framework in Figure 2 (see page 69). Those candidates who fit either the Concern subscale for People/Satisfaction (transformational leadership behaviour style) or the Concern subscale Concern/Task and Satisfaction (collaborative leadership behaviour style) would experience less stress. In addition, those who exhibited

a Constructive Style inclusive of some thinking styles (Achievement, Self-Actualizing, Humanistic-Encouraging, and Affiliative) for both Concern for People/ Satisfaction (transformational) and Concern for Task/Satisfaction (collaborative) would experience less stress. The researcher predicted that the leader who exhibited either non-directive (including Approval, Conventional, Dependent and Avoidance) or direct/direct-informational leadership behaviour styles (Avoidance, Oppositional, Power and Competitive) will experience more stress. Essentially, the leader who is more transformational or collaborative would experience less stress and the leader who was more direct/direct-informational or non-directive would experience greater levels of stress.

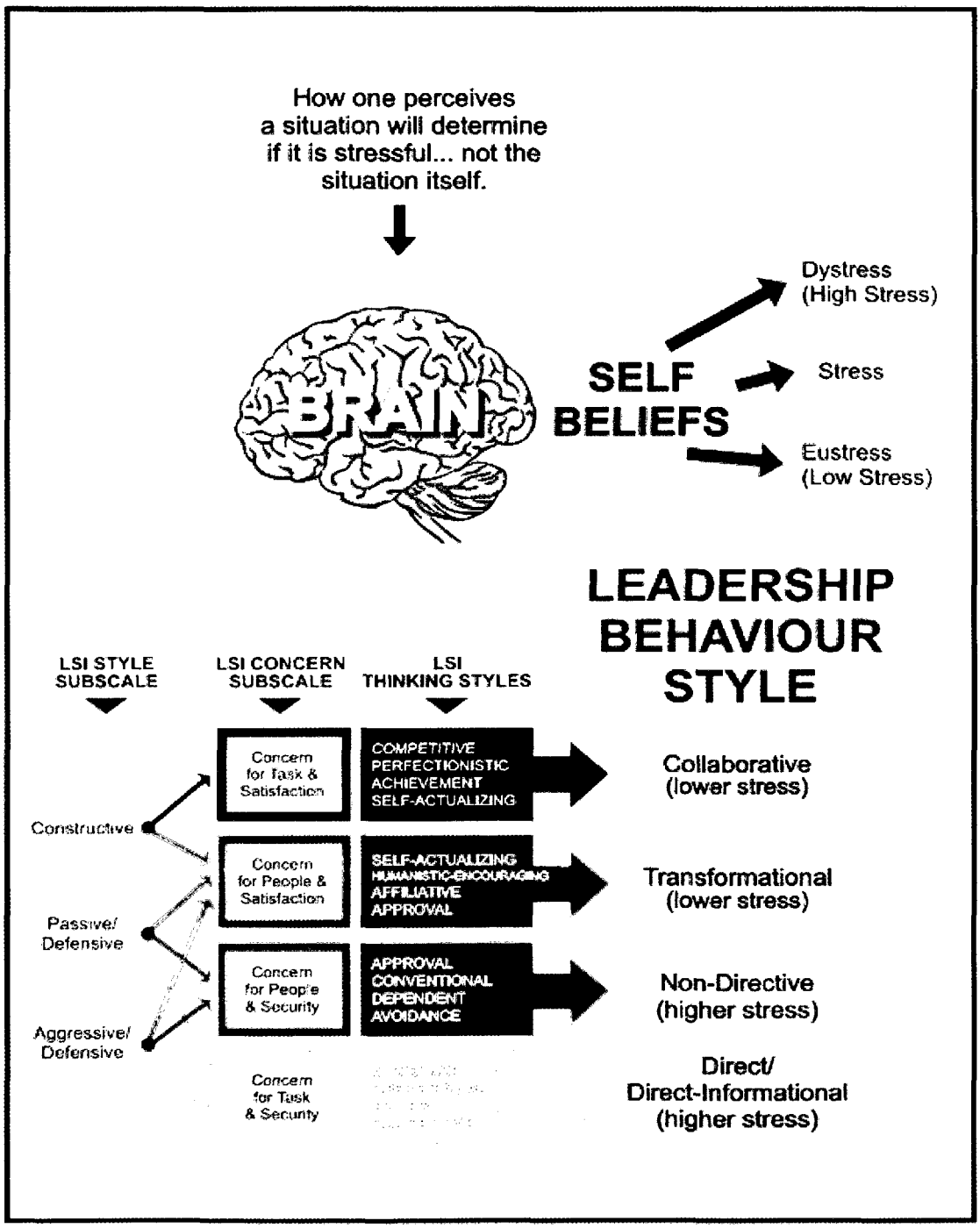
Summary.

Due to high attrition rates the face of the qualified contemporary educational leadership has become younger. Leadership not only matters, it is ranked second only to teaching among school-related factors that affect student learning (Leithwood et al., 2004; Waters et al., 2003). There is a layer of stress for educational leaders to ensure quality teaching that will positively impact student achievement. Stress is inevitable in the role of educational leader (Catholic Principals' Council of Ontario, 2004; D'Arbon et al., 2001; Educational Research Service, 1998; Institute for Educational Leadership, 2008; Grimmet & Echols, 2000; Williams, 2001). Stress can have serious health implications (Heart and Stroke Foundation of Ontario, 2000). There is a case to be made from the literature that leaders who influence others, engage students, create collaborative cultures, change teacher behaviour, increase teacher commitment, improve school

climate, and improve student achievement demonstrate either collaborative or transformational leadership (Geijsel et al., 2002; Geijsel et al. 2009; Howell & Frost, 1989; Huffman et al., 2003; Leithwood, 1994; Leithwood et al., 2002; Podsafof et al., 1990; Williams, 2006). The researcher hypothesized that the leader who exhibited transformational or collaborative leadership behaviour styles would experience less administrator stress.

The following design (Figure 2) illustrates the researchers' conceptual framework for the study. The researcher contended that how one perceived a situation would determine if it was stressful, not the situation itself. The perception of the situation would determine an individual's feelings of distress, stress, or eustress. The leadership behaviour style employed by the contemporary educational leader would determine if the individual would experience high stress or low stress.

Figure 2 Conceptual Framework designed by the Researcher for the Study Hypothesis



Note: All LSI style names and descriptions: From *Life Styles Inventory* ™ by J.C. Lafferty, Human Synergistics. Copyright 2009 by Human Synergistics International. Adapted by permission.

CHAPTER 3 – METHODOLOGY

Introduction

For this study a mixed methodology design provided data on the relationship between leadership behaviour style and stress. This mixed methodology allowed for a broad sampling of information related to stress and leadership behaviour styles. The researcher selected a mixed methodology design which included the simultaneous collection of both quantitative and qualitative data. Creswell (2002) stated that the strength of this design is the combined advantage of both quantitative (generalizability) and qualitative (in-depth contextual) data. A mixed methodology allowed the researcher to assess the outcomes and process while developing a complex picture of the phenomena. The qualitative component reflected a phenomenological approach as all the participants experienced a stress phenomena. Creswell (1998) further stated that a phenomenological approach examines the meaning of the lived experiences for several individuals about a concept or phenomenon.

The quantitative component of this study utilized a correlational analysis and MANOVA. A correlational research design measures the degree of association between two or more variables (Creswell, 2002). A correlational research design was selected for this study to determine the association between leadership behaviour style and stress. The study included six components (a) a self-identified leadership behaviour style, (b) *Life Styles Inventory* ™ (LSI) Style subscales, (c) LSI Concern subscales, (d) Administrator Stress Index (ASI) stressors, (e) demographic data, and (f) a self-perceived stressful situation.

The self-identified leadership behaviour styles included transformational, collaborative, direct/direct-informational, and non-directive as described by Glickman et al. (2007) and Leithwood et al. (1999, 2000 & 2002). The *Life Styles Inventory* [TM1] (LSI) Style subscales included Constructive, Passive/Defensive, and Aggressive/Defensive styles. The LSI Concern subscales included People/Satisfaction, Task/Satisfaction, People/Security, and Task/Security. The Administrator Stress Index (ASI) work-related stressors included Administrative Constraints, Administrative Responsibilities, Interpersonal Relations, Intrapersonal Conflict, and Role Expectations. Demographic information included information about age, gender, marital status, number of children, educational level, school grade range, and school location. Study participants also recorded a self-perceived stressful situation experienced in their work context.

The purpose of this study was to determine whether one or more types of leadership behaviour styles (transformational, collaborative, directive/directive-informational, and/or non-directive) are conducive to less stress. Based on the findings in the literature review, the researcher hypothesized that those participants who were collaborative or transformational in their leadership style and ranked high in the area of Concern subscale for People/Satisfaction (transformational leadership behaviour style) or Concern subscale for Task/Satisfaction (collaborative leadership behaviour style), and in the Constructive LSI Style subscale (a combination of transformational and collaborative leadership behaviour styles) would experience less stress. Based on the findings in the literature review, the researcher further hypothesized that those participants who (a) were non-directive or direct/direct-informational in their leadership style, (b) ranked high in

the area of Concern subscale for Task/Security (direct/direct-informational leadership behaviour style) or Concern subscale for People/Security (non-directive leadership behaviour style), and (c) those who ranked high in the Passive/Defensive or Aggressive/Defensive LSI Style subscales would experience more stress. Data gathered were examined for correlations and patterns between leadership behaviour styles and work stress factors.

Research Participants

The accessible population included administrators in one Board of education in South Western Ontario. The sample included 10 board employees who held senior administrative positions and approximately 135 principals and vice principals. The total sample thus consisted of 145 educational leaders.

Quantitative Instrumentation

In addition to participants reporting their self-perceived thinking and behavioural style, the *Life Styles Inventory* [TM1] (LSI) designed by Lafferty (1973) was used as a quantitative measure of leadership behaviour style. Administrator stressors were measured with the administration of the ASI, an index of stress levels which identified major sources of stress (Gmelch & Swent, 1982).

Prior to being selected for inclusion in the study both the LSI and ASI reliability and validity scores were examined. In addition, the researcher considered potential threats to the validity of the study. Creswell (2002) stated that certain threats may compromise a researcher's ability to draw valid inferences from data. For this study the researcher identified possible threats to construct validity and external validity. Creswell

(2002) described threats to construct validity as problems that threaten drawing correct inferences because of the measure used in the experiment (independent variable) and the outcome (dependent variable). To overcome this potential threat the researcher selected a measure to be complex enough so that research participants could not guess the experimenter's desired outcome. Creswell (2002) described threats to external validity as problems that threaten drawing correct inferences from the sample data to other settings, people, or situations. To overcome this potential threat the researcher gathered qualitative data and examined the self-identified leadership behaviour styles with demographic data such as gender, age, and school work location.

Life Styles Inventory^{TM1} *(LSI).*

The LSI isolates and measures 12 different thinking and behavioural styles and positions them on a circumplex. Thinking style is defined as a set of thoughts and words which produces a distinct pattern that determines one's behaviour. The 12 different thinking styles are postulated to fall into three clusters: Constructive, Passive/Defensive, or Aggressive/Defensive. It also identifies four areas of Concern: Task/Satisfaction, People/Satisfaction, Task/Security, and People/Security (Cooke & Lafferty, 1982). The 12 thinking styles identified by the LSI are Constructive considered effective or Defensive, considered potentially self-defeating. The thinking styles work together to influence an individual's behaviour. Thus, the positive behavioural effects of a high range score for one of the Constructive scales can be easily overshadowed by a high range score for one of the Defensive scales. When a participant completes the LSI, he/she creates a "profile" of his/her current thinking and behaviour. How one thinks determines

how one perceives reality and relates to others, as well as how one solves problems and makes decisions. Thinking styles influence one's ability to cope with stress and lead effectively.

Ware et al. (1985) stated that the four subscales of Concern in the conceptual model of the LSI identified two bipolar and independent dimensions that reflected the distinctions between security and satisfaction needs and task and people orientations. The four factor Concern subscales of people orientations were derived by combining *motivation theory* (Maslow, 1954) with person-versus-task centered models of leadership (Blake & Mouton, 1964; Stogdill, 1963).

The LSI tool has 240 items scored on a 3-point Likert-like scale that included the description of (a) like you most of the time, (b) like you quite often, and (c) essentially unlike you. On average participants required 30 minutes to complete the LSI instrument. Of the 240 items, 12 individual scales organized by the LSI Leadership Behaviour Style subscale (Constructive, Passive/Defensive and Aggressive/Defensive) and LSI Concern subscale (People/Satisfaction, Task/Satisfaction, People/Security and Task/Security) constituted the score for each individual. The LSI 12 thinking styles were on a circumplex and included: (1) Humanistic-Encouraging; (2) Affiliative; (3) Approval; (4) Conventional; (5) Dependent; (6) Avoidance; (7) Oppositional; (8) Power; (9) Competitive; (10) Perfectionistic; (11) Achievement; and, (12) Self-Actualizing. Lafferty (1973), Cooke, Rousseau, and Lafferty (1987), Duval (2001), and Levin (1991) postulated that the 12 thinking styles were inter-correlated along a continuum which formed a circle as represented by the circumplex in Figure 1 found on page 22.

Rawlins et al. (1987) stated that geometrically the circular pattern was obtained by mapping the variables into a cyclically ordered set of points so that the distance between any pair of points represented the similarity of the variables as measured by their correlation. The thinking styles represented by the scales directly opposite each other tended to conflict, and thus could cause emotional and/or physical distress.

In a validity and reliability research paper from Human Synergistics (n.d.) individuals who scored high in the Constructive Style cluster (11 o'clock to 2 o'clock) were described as generally effective in most things they did including building relationships. They had high levels of self-confidence. They typically derived a great deal of satisfaction from what they did and with whom they interacted. Individuals who scored high in the Passive/Defensive Style cluster (3 o'clock to 6 o'clock) preferred safe and secure situations and relationships that had little or no risk. They were interested in maintaining the status quo by allowing others to make decisions for them. Individuals who scored high in the Aggressive/Defensive Style cluster (7 o'clock to 10 o'clock) were typically overly critical or lacked confidence in the contributions of others. They tended to concentrate on short-term results at the expense of long-term goals and the feelings of others. Their aggressive attitude and behaviour towards others usually had a negative effect on relationships.

Rawlins and Daumer (1987) noted that the individual scales measured a subject's primary and secondary leadership predispositions and were correlated with the thinking styles. A brief description of the thinking styles are as follow.

Constructive

1:00 The Humanistic-Encouraging style reflects an interest in the growth and development of people, a high positive regard for them, and sensitivity to their needs. People with this style devote energy to counseling and coaching others, interact with others in a thoughtful and considerate way, and provide them with support and encouragement. *(encourages others, willing to take time with people)*

2:00 The Affiliative style reflects an interest in developing and sustaining pleasant relationships with others. People with this style share their thoughts and feelings with others, are friendly and cooperative, and make others feel like they are part of the team. *(cooperative, likes to include others in activities)*

11:00 The Achievement style is based on the need to attain high quality results on challenging projects, the belief that outcomes are linked to one's effort rather than chance, and the tendency to personally set challenging yet realistic goals. People exhibiting this style think ahead and plan, explore alternatives before acting, and learn from their mistakes. *(enjoys a challenge, sets own goals)*

12:00 The Self-Actualizing style is based on needs for personal growth, self-fulfillment, and the realization of one's potential. People exhibiting this style demonstrate a strong desire to learn and experience things, creative yet realistic thinking, and a balanced concern for people and tasks. *(optimistic & realistic, high personal integrity)*

Passive/Defensive

3:00 The Approval style reflects a need to be accepted and a tendency to tie one's self-worth to being liked by others. People with this style try very hard to please others, make a good impression, and be agreeable or obedient. *(generous to a fault, agrees with everyone)*

4:00 The Conventional style reflects a preoccupation with conforming and "blending in" with the environment to avoid calling attention to oneself. People with this style tend to rely on established routines and procedures, prefer to maintain the *status quo*, and desire a secure and predictable work environment. *(thinks rules more important than ideas, conforming)*

5:00 The Dependent style reflects a need for self-protection coupled with the belief that one has little direct or personal control over important events. People who exhibit this style (possibly as a result of recent changes in their personal or work lives) allow others to make decisions for them, depend on others for help, and willingly obey orders. *(obeys too willingly, very respectful to superiors)*

6:00 The Avoidance style reflects apprehension, a strong need for self-protection, and a

propensity to withdraw from threatening situations. People with this style "play it safe" and minimize risks, shy away from group activities and conversations, and react to situations in an indecisive or non-committal way. *(evasive, leaves decisions to others)*

Aggressive/Defensive

7:00 The Oppositional style reflects a need for security that manifests itself in a questioning, critical and even cynical manner. Though people exhibiting this style ask tough questions that can lead to better ideas, they might also emphasize even minor flaws, use criticism to gain attention, and blame others for their own mistakes. *(slow to forgive a wrong, opposes new ideas)*

8:00 The Power style reflects needs for prestige and influence and the tendency to equate self-worth with controlling others. People with strong tendencies along this style dictate (rather than guide) the actions of others, try to run everything themselves, and treat others in aggressive and forceful ways—which, ironically, limits their true influence. *(runs things by self, abrupt)*

9:00 The Competitive style is based on a need to protect one's status by comparing oneself to others, outperforming them, and never appearing to lose. People with this style seek recognition and praise from others, view even non-competitive situations as a contest or challenge to "prove" themselves, and try to maintain a sense of superiority. *(overestimates ability, gets upset over losing)*

10:00 The Perfectionistic style is based on the need to attain flawless results, avoid failure, and involves the tendency to equate self-worth with the attainment of unreasonably high standards. People who exhibit this style are preoccupied with details, place excessive demands on themselves and others, and tend to show impatience, frustration, and indifference to the needs of others. *(de-emphasizes feelings, impatient with own errors)*[3]

Cooke and Rousseau (1983) conducted a study that used the LSI and also included a supplementary section that requested background information on the respondent and his/her organizational position. The study was based on a sample of 1,000 individuals randomly selected from a population of 5,000 individuals who completed the LSI in 1979. The respondents represented a heterogeneous sample of managers and non-

---

[3] Research and Development by: Robert A. Cooke, Ph.D. and J. Clayton Lafferty, Ph.D. Style descriptions and items are copyrighted © and used by permission. From J. C. Lafferty (1986), *Life Styles Inventory Self-Development Guide*, Plymouth MI USA: Human Synergistics International. All Rights Reserved.

managers in public and private organizations. The supplementary section of the study also included a medical problems checklist and life events checklist. The correlation matrix for all variables measured in this study is presented in Table 8.

Table 8 Regression of Strain Symptoms Using Ordered Selection - Cooke & Rousseau (1983)

Variable	β	R^2(change)	R^2(cumulative)
Background		(.03)	
Age	.03	.00	.00
Education	-.14**	.02	.02
Organizational level	-.03	.00	.02
Salary	-.11*	.01	.03
Life Events		(.08)	
Work	.08	.01	.04
Family	.13**	.01	.05
Financial/Legal	.02	.00	.05
Personal	.24**	.06	.11
Life Styles		(.06)	
People/Security	.09*	.01	.12
Satisfaction	-.16**	.02	.14
Task/Security	.16**	.02	.16
Product Terms			
Event x People/Security	.05	.00	.16
Event x Satisfaction	-.04	.00	.16
Event x Task/Satisfaction	.00	.00	.16

Note. The data in Table 8 are from "Relationship of Life Events and Personal Orientations to Symptoms of Strain" by R. A. Cooke & D. M. Rousseau, 1983. Reprinted with permission.

Cooke and Rousseau (1983) asked respondents to review a list of 20 problems and check those that they had experienced within the last two years. Eleven of the problems listed were shown in previous studies to be related to stress, thus strain was

measured by the number of problems/symptoms checked. Some of the problem/symptoms included sleeplessness (Selye, 1974), excessive smoking (Cox, 1978), nervousness (Ivancevich & Matteson, 1980; Seyle, 1974), frequent headaches (Cox, 1978; Ivancevich & Matteson, 1980; Seyle, 1974), depression (Seyle, 1974), ulcers (Ivancevich & Matteson., 1980; Seyle, 1974), high blood pressure (Ivancevich and Matteson, 1980; Seyle, 1974), coronary heart disease (Cox, 1978), hyperacidity (Ivancevich and Matteson, 1980), overweight by 20 pounds or more (Adams, 1980) and colitis (Selye, 1976).

Data in Table 8 show that the strain measured is significantly related to the People/Security (R^2=.12) and Task/Security (R^2=.16) orientations. Cooke and Rousseau (1983) also stated that the stronger the security orientations, the greater the number of strain symptoms reported by the respondents. Also of note is that the stronger these security orientations, the greater the number of strain symptoms reported by the respondent. Cooke and Rousseau stated the satisfaction orientation factor was positively related to the strain measure (B=.09); the stronger the satisfaction orientation, the fewer the symptoms reported. Further, Cooke and Rousseau determined that the life event scales also correlated significantly with the strain measure. The family and personal event scales demonstrated a positive relationship to the number of symptoms reported (B=.13 and .24) respectively. The correlation between work events and the strain measure (B=.08) was only marginally significant (p<.02). Lastly, financial/legal events and strain did not demonstrate a significant correlation.

Cronbach's alpha tests for internal consistency measured consistency among

individual items in a scale. When the alpha is .70, the standard error of measurement will be over half (0.55) a standard deviation. Cooke and Rousseau (1983) stated the reliability of the LSI was examined using Cronbach's alpha. The alpha coefficients for the LSI indices are shown in Table 9. These coefficients ranged from .80 to .88 with an average of .84. In a research paper from Human Synergistics (n.d.) it was determined that the alpha scores, while generally acceptable, may have been somewhat depressed due to variations in intensity of the items constituting each scale. Conversely, these alpha scores have been slightly inflated due to the number of items constituting each scale. In an attempt to verify this, a backward stepwise technique was used to systematically eliminate divergent items and to identify the final six items that generated the highest alpha coefficient. The coefficients of these smaller indices ranged from .74 to .83. These alpha coefficients indicated that the measures of the LSI were reliable even based on relatively few items. Similarly, the LSI performed adequately on a test for convergent and discriminate validity with over 90% of the items correlating more strongly with their own indices than with any of the other indices.

Table 9 LSI Descriptive Statistics & Reliabilities

Clock Position	Life Style	Mean	Standard Deviation	Alpha Coefficient
1	Humanistic-Encouraging	28.11	5.99	0.85
2	Affiliative	28.22	6.92	0.8
3	Approval	13.34	5.9	0.82
4	Conventional	14.85	6.0	0.83
5	Dependence	15.83	6.14	0.82
6	Avoidance	6.93	6.18	0.88
7	Oppositional	8.04	5.8	0.85
8	Power	6.35	5.46	0.86
9	Competitive	11.86	6.54	0.85
10	Perfectionistic	17.31	6.56	0.83
11	Achievement	28.23	6.92	0.88
12	Self-Actualizing	25.09	7.16	0.88

Note. The data in Table 9 are from "LSI/STYLUS Validity & Reliability Research Paper by Human Synergistics, (n.d.). Reprinted with permission.

Ware et al. (1985) stated that the calculation of Cronbach's alpha estimates of internal consistency for the factor scores, based on normalized variables and the factor score coefficient matrix, yielded reliability coefficients of .79, .67, and .75 for Factors 1, 2, and 3 (Humanistic, Affiliative, and Approval) respectively. Data collected for this study were explored and the scales were checked for internal consistency. Cronbach's alpha was obtained to check the internal consistency of each LSI Style subscale. The LSI subscales Constructive, Passive/Defensive, and Aggressive/Defensive yielded alpha

levels of .873, .827, and .845, respectively. As well, Cronbach's alpha was obtained to check the internal consistency of each LSI area of Concern subscale. LSI Concern subscales People/Satisfaction, Tasks/Satisfaction, Tasks/Security, and People/Security each had levels of that were acceptable, .719, .683, .791, and .827, respectively.

The Administrative Stress Index (ASI).

The ASI was developed and validated by Gmelch and Swent (1982) and a factor analysis was conducted by Koch, Tung, Gmelch, and Swent (1984). Cronbach's alpha on each subscale test for the ASI included scores ranging from of .583 to .771. The development of this tool was based on a sample of 1,211 participants who were members of the Confederation of Oregon School Administrators. In the sample 320 were elementary administrators, 397 were junior high and high school administrators, 151 were superintendents, 254 were assistant superintendents and central office staff and 89 were curriculum directors, transportation supervisors, and athletic directors. The ASI is comprised of 35 items from the Job Related Index, stress logs, and a review of the literature that examined sources of administrator work stress.

The ASI is a 35 item tool which identifies major sources of administrators' stress by establishing five clear factors of occupational stressors (stress-inducing situations) which are Administrative Constraints, Administrative Responsibilities, Interpersonal Relations, Intrapersonal Conflict, and Role Expectations. Each of the five factors contains seven items that have been rank ordered from 1 (highest) to 35 (lowest). For convenience, the rank order has been used as the item number. Administrative constraints consists of items 1, 2, 3, 8, 10, 17, and 23; Administrative Responsibilities 4, 6, 16, 18, 19, 22, and

29; Interpersonal Relations 5, 12, 14, 15, 20, 26, and 32; Intrapersonal Conflict 7, 9, 13, 24, 28, 31, and 34; and Role Expectation 11, 21, 25, 27, 30, 33, and 35. Refer to Appendix B to view the ASI instrument in rank order. The five subscales of the ASI include: (a) Administrative Constraints which refers to inadequate time for meetings, and role expectations, (b) Administrative Responsibilities which refers to managerial tasks of evaluation, negotiation, and supervision, (c) Interpersonal Relations which refers to resolving differences among and between colleagues and supervisors, (d) Intrapersonal Conflict which refers to conflicts between one's performance and one's internal beliefs and expectations, and (e) Role Expectations which refers to the differences in expectations of self and the various stakeholders served.

Qualitative Instrumentation.

The qualitative component of the study included a brief reflection of a leadership scenario that participants self-identified as being a stressful situation, but that they were able to de-stress based on a self-identified leadership behaviour style they applied to the scenario (transformational, collaborative, direct/direct-information and/or, non-directive). The participants were asked to describe the stressful scenario in a brief paragraph as well as how they handled the self-perceived stressful situation. Additionally, participants were asked to self-identify the leadership behaviour style (transformational, collaborative, direct/direct-informational, or non-directive) they employed to contend with the stressful situation they described in the reflection. Brief definitions of each of the four leadership behaviour styles were provided on the back page of the qualitative survey as a reference guide for study participants. The qualitative approach permitted a more in depth analysis

of the perception of stress and leadership behaviour styles for the participants.

Procedures.

Firstly, a board of education in southwestern Ontario granted permission to complete the present study (see Appendix E). An envelop containing a cover letter (see Appendix F), the instruments (LSI, ASI, and a qualitative reflective response form) and computerized answer sheets were distributed to educational leaders in the fall of 2007. The respondents returned the bubble response sheets and booklets within three weeks for data analysis. A reminder was sent to each educational leader in the participating board two weeks after the packages were delivered as encouragement to complete and return the questionnaires. The researcher organized the returned forms to prepare for an analysis of the information. The Statistics Package for the Social Sciences 13.0 (SPSS 13.0) file was created that contained 74 variables including 14 demographic variables, 40 variables from the ASI file (35 single item scores plus five subscale categories), 19 variables from the LSI file (12 style scores plus three cluster subscales and four Concern subscales), and a self-identified leadership behaviour style variable.

The process continued with an exploration and description of the data followed by statistical tests that were applied in accordance with the specific research question and hypotheses. The researcher sought to determine if stress levels were related to leadership behaviour styles. Based on the information gleaned from reading the literature review the researcher predicted that the leader who exhibited either transformational or collaborative leadership behaviour styles would experience lower levels of stress. When considering the four Concern subscales of the LSI the researcher predicted that research study

participants who matched either the subscale entitled Concern for People/Satisfaction which included Humanistic-Encouraging, Affiliative, Approval, and Self- Actualizing thinking styles or the subscale entitled Concern for Task/Satisfaction which included Self-Actualizing, Achievement, Perfectionistic, and Competitive thinking styles would experience less stress on the job (refer to Table 4, Figure 1 & Figure 2). These categories are reflective of transformational leadership behaviour style (Concern for People/Satisfaction) and collaborative leadership behaviour style (Concern for Task/Satisfaction). The researcher further hypothesized that the leader who exhibited either non-directive or direct/direct-informational leadership behaviour styles would experience more stress. These leaders either matched the subscale entitled Concern for People/Security (non-directive) which included Approval, Conventional, Dependent, and Avoidance thinking styles or the subscale entitled Concern for Task/Security (direct/direct-informational) which included Avoidance, Oppositional, Power, and Competitive thinking styles. When considering the three LSI Style subscales, the researcher predicted that research study participants who matched the Constructive Style which included Achievement, Self-Actualizing, Humanistic, and Affiliative thinking styles would demonstrate some thinking styles reflective of both collaborative and transformational leadership behaviour styles, and thus would experience less stress.

In addition to completing the LSI and ASI, the research study participants provided demographic information. They also reported a self-perceived stressful event and their self-identified leadership behaviour style (transformational, collaborative, direct/direct-informational, or non-directive) associated with this event.

The research design is a mixed methodology of both quantitative and qualitative research. Creswell (2002) suggested that a quantitative study begins with the question why and seeks to conduct a comparison of groups. In contrast, a qualitative study begins with the question how or what to describe the scenario surrounding the inquiry. The quantitative portion of this study was a correlational design using correlation coefficients and MANOVA for analyses. The researcher wanted to determine if leadership behaviour styles correlate with the level of stress for the contemporary educational leader. Quantitative data were collected with the dependent variables being work perceived stressors (Administrative Constraints, Administrative Responsibilities, Interpersonal Relations, Intrapersonal Conflict, or Role Expectation) measured by the ASI. The independent variable was the leadership behaviour style (transformational, collaborative, direct/direct-informational, or non-directive) as related to the Style subscales (Constructive, Passive/Defensive, and Aggressive/Defensive) and Concern subscales (People/Satisfaction, Task/Satisfaction, People/Security, and Task/Security) of the LSI. The quantitative data were also elaborated upon with demographic data. In addition, there was a qualitative component including questions which focused on the types of school situations or leadership responsibilities contributing to leadership stress, and the types of actions and leadership behaviour styles leaders employed to handle stressful situations. Participants responded to open ended questions in a written response. The researcher processed all qualitative responses into an electronic document to prepare for analysis. An analysis of the qualitative component of the research was conducted using the NVivo software program which identified key themes, reoccurring incidents, and the self-

identified leadership behaviour style of each participant. Qualitative data were then cross referenced with demographic data (gender, age, grade range, work location, years experience, education background, marital status and family dependents) and organized in Excel charts to determine frequency. Relevant frequency data were included in the results of the study.

Summary.

The research methodology, including the procedures used to collect data was presented in this chapter. This presentation included descriptions of the variables in the study, the research hypotheses, the setting, population of this study, the instrumentation used, the data collection procedures, and the methods used for data analysis. The results of the study are presented in Chapter 4.

CHAPTER 4 - RESULTS

Descriptive Statistics

The purpose of the research study was to determine whether one or more types of leadership behaviour styles (transformational, collaborative, direct/direct-informational, and/or, non-directive) is conducive to reduced administrator stress. This chapter presents analyses of the results of data collected in the sample. The methodology employed the use of two instruments including the *Life Styles Inventory* ™ (LSI)[1] and the Administrator Stress Index (ASI). Quantitative data were analyzed using the Statistics Package for the Social Sciences 13.0 (SPSS 13.0) software program for personal computers[4].

Research Question and Hypothesis

Does leadership behaviour style correlate with stress for the contemporary educational leader? Based on the information in the literature review the researcher predicted that the leader who exhibited transformational or collaborative leadership behaviour styles would experience less administrator stress. In addition, those leaders who exhibited direct/direct-informational or non-directive leadership behaviour styles would experience more administrator stress.

Further, it was predicted that research participants who matched the LSI Concern subscales for People/Satisfaction (Self-Actualizing, Humanistic-Encouraging, Affiliative, and Approval) or Task/Satisfaction (Self-Actualizing, Achievement, Perfectionistic, and Competitive) would experience less stress on the job. The participants who fit either the Concern subscale for People/Satisfaction (transformational leadership behaviour style) or

[4] For descriptive purposes arithmetic means and standard deviations for all LSI and ASI variables and subscales are reported.

the Concern for Task/Satisfaction (collaborative leadership behaviour style) would experience less stress as conceptualized in Table 1 (see page 23) and the framework in Figure 2 (see page 69). The researcher predicted that the leader who exhibited Concern for People/Security (Approval, Conventional, Dependent, and Avoidance) or Concern for Task/Security (Avoidance, Oppositional, Power, and Competitive) would experience more stress. The participants who fit either the Concern for People/ Security (non-directive leadership behaviour style) or Concern for Task/Security (Direct/Direct-Informational) would experience more stress as conceptualized in Table 1 and the framework in Figure 2.

Lastly, the research study participants who exhibited a Constructive Leadership Behaviour Style inclusive of some thinking styles (Achievement, Self-Actualizing, Humanistic, and Affiliative) for both the Concern for People/Satisfaction (transformational leadership behaviour style) and Concern for Task/Satisfaction (collaborative leadership behaviour style) would experience less stress. In addition, research study participants who exhibited Passive/Defensive Styles inclusive of some thinking styles (Approval, Conventional, Dependent, and Avoidance) from both the Concern for People/Satisfaction and Concern for People/Security would experience more stress. Research study participants who exhibited Aggressive/Defensive Styles inclusive of some thinking styles (Oppositional, Power, Competitive, and Perfectionistic) from both the Concern for Task/Security and Concern for Task/Satisfaction would experience more stress.

Demographic Information

The sample population included administrators in one board in southwestern Ontario with 10 board employees holding senior administrative positions and 135 principals and vice principals. The total accessible population consisted of 145 administrators. In total 95 questionnaire response forms were completed by participants and returned for a total sample size of 95. This corresponds to a 65.5% response rate.

The demographic information included age, gender, marital status, number of children, education level, school grade range, and school location. Of the research study participants 30.5% (N=29) were between the age of 31 and 40 and in the early stage (first 10-12 years) of their career, 42.1% (N=40) were between the age of 41 and 50 and in the mid range of their career and 28.4% (N=27) were between the age of 51 and 60 and in the late stage of their career. The sample of male administrators 45.2% (N=43) was almost equivalent to female administrators 54.7% (N=52). Of the research study participants 86.3% (N=82) were married and 84.2% (N=8) had dependents. Of the research study participants 71.5% (N=68) had at least one or more children at home while 28.4% (N=27) had no children at home. Of the participants, 55.7% (N=53) had a Master of Education degree while 29.4% (N=28) had an educational specialist in lieu of a Master of Education degree. One participant was a PhD candidate while 5.2% (N=5) had completed their PhD. A total of 9 participants did not provide an answer to the question that would identify an education level. With respect to the school location, 52.6 % (N=50) worked in an urban school, 23.1% (N-22) worked in a rural school setting, 17.8% (N=17) worked in a suburban school and 6.3% (N=6) worked at the system board office. A majority of the

participants worked in an elementary school with 74.7 % (N=71) identifying their school as a K-8 school, 18.9% (N=18) identifying their school as a 9-12 school and 6.3% (N=6) identifying "other" indicating the board office as their place of employment.

Life Style Inventory^{TM} *(LSI) Information.*

The LSI had three Leadership Behaviour Style subscales which included: (a) Constructive consisting of composite 11, 12, 1, and, 2 o'clock; (b) Passive/Defensive consisting of composite 3, 4, 5, and, 6 o'clock; and (c) Aggressive/Defensive consisting of composite 7, 8, 9, and, 10 o'clock. In addition, the LSI had four areas of Concern subscales including: (a) People/Satisfaction consisting of composites 12, 1, 2, and 3, o'clock; (b) Tasks/Satisfaction consisting of composites 9, 10, 11, and, 12 o'clock; (c) Tasks/Security consisting of composites 6, 7, 8, and 9 o'clock; and, (d) People/Security consisting of items 3, 4, 5, and, 6 o'clock. Refer to Figure 1 (page 38) to locate the Style subscales and the Concern subscales on the LSI circumplex.

The mean and standard deviation scores for the three LSI Leadership Behaviour Style subscales are found in Table 10. The means and standard deviation scores for the four LSI Concern subscales are found in Table 11.

Table 10 LSI Style Subscale Descriptive Statistics

	Mean	Standard Deviation
LSI Constructive Style	32.84	4.66
LSI Passive/Defensive Style	11.88	3.70
LSI Aggressive/Defensive Style	8.86	3.81

Note: All LSI style names and descriptions: From *Life Style Inventory*^{TM} by J.C. Lafferty, Human Synergistics. Copyright 2009 by Human Synergistics. Used by permission.

Table 11 LSI Concern Subscale Descriptive Statistics

	Mean	Standard Deviation
LSI Concern for People and Satisfaction (Transformational)	27.97	3.84
LSI Concern for Task and Satisfaction (Collaborative)	22.40	4.08
LSI Concern for Task and Security (Direct/Direct-Informational)	5.78	3.31
LSI Concern for People and Security (Non-directive)	11.88	3.70

Note: All LSI conern names and descriptions: From *Life Style Inventory*™ by J.C. Lafferty, Human Synergistics. Copyright 2009 by Human Synergistics. Used by permission.

ASI Information.

The ASI included five subscales which were Administrative Constraints, Administrative Responsibilities, Interpersonal Relations, Intrapersonal Conflict, and Role Expectations. Cronbach's alpha was obtained to check the internal consistency of each ASI subscale. Cronbach's alpha coefficients for each of the subscales 1, 3, 5 were .765, .771, and, .701, respectively. Cronbach's alpha coefficients for ASI subscale 2 and 4 were .583, and .659, respectively.

Mean and standard deviation scores for the ASI subscales are listed in Table 12.

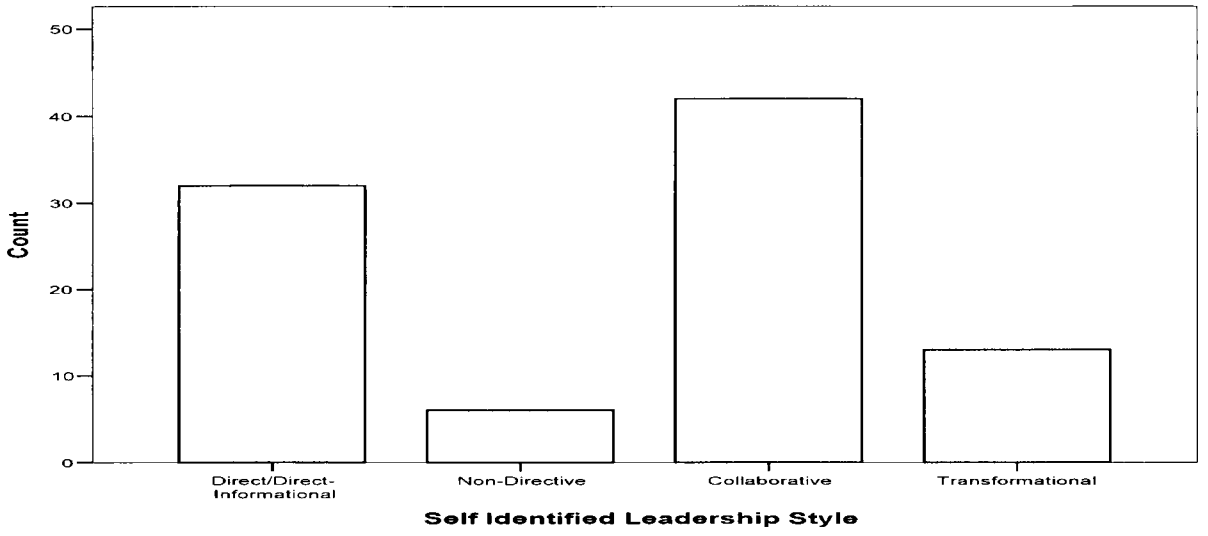
Table 12 ASI Subscale Descriptive Statistics

	N	Mean	Standard Deviation
ASI Administrative Constraints Scale	95	2.91	.72
ASI Administrative Responsibilities Scale	89	2.47	.60
ASI Interpersonal Relations Scale	94	2.49	.69
ASI Intrapersonal Conflict Scale	94	2.73	.61
ASI Role Expectations Scale	95	2.34	.69

Quantitative Data.

Figure 3 provides a bar chart indicating that most respondents self-identified as either collaborative or direct/direct-informational when describing the leadership behaviour style they employed when contending with a perceived stressful situation described in the qualitative survey. Collectively, 56 of the 95 participants self-reported exercising a collaborative or transformational leadership behaviour style.

Figure 3 Self-Identified Leadership Behaviour Style



A MANOVA was used to examine the association between self-identified leadership style and stress. The independent variable was self-identified leadership style (transformational, collaborative, direct/direct informational, and non-directive). The dependent variables were the five ASI scales. The MANOVA revealed no significant ($p>.05$) main effect, $F(15,240)=1.38.p>.1$. In addition, none of the subsequent univariate tests were found to be of statistical significance. There was a similar response in each of the four leadership behaviour style domains. The means and standard deviations for the four self-identified leadership behaviour styles and the five ASI subscale are found in Table 13. Thus self-perceived stress levels do not vary as a function of self-perceived leadership style.

Additional tests were conducted to determine if there was any significance between the self-identified leadership behaviour styles reported by participants in the qualitative survey in relation to the ASI subscales. Results indicated that there were no

significant differences in the perceived stressors on the five ASI subscales regardless of the self-identified leadership behaviour style.

Table 13 Means & Standard Deviations for the Four Self-Identified Leadership Behaviour Styles and the Five Subscales of the ASI.

ASI Subscale	Leadership Behaviour Style							
	Transformational		Collaborative		Direct/Direct-Informational		Non-Directive	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Administrative Constraints	2.86	.688	2.88	.730	3.06	.761	2.69	.498
Administrative Responsibilities	2.63	.546	2.50	.698	2.41	.551	2.38	.295
Interpersonal Relations	2.62	.691	2.55	.763	2.41	.616	2.38	.636
Intrapersonal Conflict	2.84	.533	2.85	.650	2.56	.606	2.81	.309
Role Expectations	2.44	.653	2.32	.757	2.39	.676	2.04	.377

In addition, correlational analyses provided evidence as contained in Table 14 and Table 15 to reject the study hypotheses. All participants had a score on the LSI subscales. Each of the scales is continuous. Participants scored higher in one domain than in others. Regardless of the degree of Leadership Behaviour Style as determined with the LSI or the LSI Concern subscales there was no correlation with stress as indicated by the correlation analysis.

Table 14 Correlation Table LSI Style Subscales & ASI Subscales

LSI Style Subscale		ASI Administrative Constraints Scale	ASI Administrative Responsibilities Scale	ASI Interpersonal Relations Scale	ASI Intrapersonal Conflict Scale	ASI Role Expectation Scale
Constructive Style	Pearson Correlation	-.116	-.101	-.025	.048	.029
	Sig. (2-tailed)	.262	.345	.808	.647	.779
	N	95	89	94	94	95
Passive/ Defensive Style	Pearson Correlation	.049	.058	.075	-.020	-.076
	Sig. (2-tailed)	.638	.590	.474	.850	.463
	N	95	89	94	94	95
Aggressive/ Defensive Style	Pearson Correlation	-.044	.034	.050	-.100	-.054
	Sig. (2-tailed)	.671	.755	.635	.336	.603
	N	95	89	94	94	95

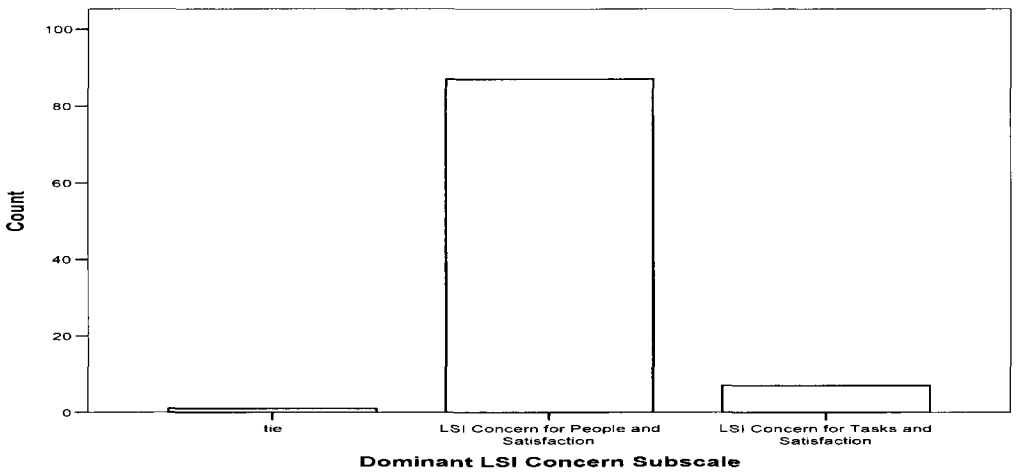
Note: All LSI style names and descriptions: From *Life Style Inventory*™ by J.C. Lafferty, Human Synergistics. Copyright 2009 by Human Synergistics. Used by permission.

Table 15 Correlation Table LSI Concern Subscales & ASI Subscales

LSI Concern Subscale		ASI Administrative Constraints Scale	ASI Administrative Responsibilities Scale	ASI Interpersonal Relations Scale	ASI Intrapersonal Conflict Scale	ASI Role Expectation Scale
LSI Concern for People and Satisfaction	Pearson Correlation	-.040	-.058	.015	.103	.049
	Sig. (2-tailed)	.703	.586	.887	.323	.637
	N	95	89	94	94	95
LSI Concern for Tasks and Satisfaction	Pearson Correlation	.138	-.109	-.038	-.087	-.082
	Sig. (2-tailed)	.183	.311	.719	.405	.430
	N	95	89	94	94	95
LSI Concern for Tasks and Security	Pearson Correlation	-.025	.081	.080	-.107	-.052
	Sig. (2-tailed)	.807	.453	.444	.304	.615
	N	95	89	94	94	95
LSI Concern for People and Security	Pearson Correlation	.049	.058	.075	-.020	-.076
	Sig. (2-tailed)	.638	.590	.474	.850	.463
	N	95	89	94	94	95

Figure 4 provides a bar chart of the dominant LSI Concern subscales. Only two categories are evident on the bar chart. This is because participant scores fell into either (a) Concern for People/Satisfaction (transformational leadership behaviour style) or (b) Concern for Task/Satisfaction (collaborative leadership behaviour style). None of the respondents had a dominant scale of (c) Concern for Tasks and Security (direct/direct-informational leadership behaviour style) or (d) Concern for People and Security (non-directive leadership behaviour style). The additional category, entitled "Tie" on the bar chart, represents the one person who scored equally on subscale (a) and (b).

Figure 4 Dominant LSI Concern Subscale



Overall, participants' dominant LSI Leadership Behaviour Style was Constructive. The LSI Constructive Style represents both portions of concern for People/Satisfaction (transformational leadership behaviour style) including LSI Self-Actualizing, Humanistic-Encouraging, Affiliative and Approval thinking styles and portions of Concern for Task/Satisfaction (collaborative leadership style) including LSI Self-Actualizing, Achievement, Perfectionistic and Competitive thinking styles.

Participants engaged in the qualitative component of the study by providing a written reflection of a self-perceived stressful situation, how they handled it, and a self-identification of their perceived leadership behaviour style (transformational, collaborative, direct/direct-informational or non-directive).

Qualitative Data.

The researcher sought to discover connections through the qualitative data. Qualitative data were entered into a spreadsheet. Nine three-way sorts were conducted

with the qualitative data as viewed in Table 16 which provides the various data sorts.

Table 16 Qualitative Data Sorts

1	Gender	Self Identified Leadership Style	Key Themes
2	Gender	Years in the Position	Key Themes
3	Gender	Years in the Position	Self Identified Leadership Style
4	Gender	Location	Key Themes
5	Gender	Self Identified Leadership Style	Type of Incident
6	Gender	Years in the Position	Type of Incident
7	Gender	Location	Type of Incident
8	Gender	Location	Self Perceived Leadership Style
9	Gender	Location	Years in the Position

The quantitative data identified the Constructive Leadership Behaviour style as the only dominant style for all participants. The analysis of the qualitative data was particularly useful as the participants self-identified their leadership behaviour style. This resulted in representation in all four leadership behaviour style categories (transformational, collaborative, direct/direct-informational, and non-directive). The following was significant information gleaned from the qualitative data analysis that was considered relevant to the research focus. The qualitative data prompted possible connections to stress and leadership behaviour styles based on gender, key themes, and job location.

As seen in Table 17, of the 52 women respondents 27 (51.9%) self-identified using a collaborative leadership behaviour style when contending with a stressful situation. Of those remaining, 14 (26.9%) self-identified using a direct/direct-

informational leadership behaviour style, 5 (9.6%) self-identified using a transformational leadership behaviour style, 4 (7.6%) self- identified using a non-directive leadership behaviour style, and 2 (3.8%) did not self-identify a leadership behaviour style when contending with a stressful situation. Most female participants self-identified as using either collaborative or direct/direct-information leadership behaviour styles as the preferred style.

Of the 43 male participants, 17 (39.5%) self-identified as using a direct/direct–informational leadership behaviour style when dealing with a stressful situation, 15 (34.8%) self-identified as using a collaborative leadership behaviour style, 9 (20.9%) self-identified as using a transformational leadership behaviour style, and 2 (4.6%) self-identified using a non-directive leadership behaviour style. Most male participants employed either a direct/direct-informational or collaborative leadership behaviour style.

An examination of gender differences indicated a slight majority of female administrators (51.9%) self-identified the use of a collaborative leadership style while the greatest number of male administrator participants (39.5%) self-identified their use of direct/direct-informational leadership behaviour style.

The key issues identified in the qualitative data, regardless of gender, included building relationships, challenging authority, community issues, contending with parent councils, conflict with staff, federation issues, parent concerns with staff, police involvement; policy issues, staff conflict, and teacher incompetence. All stressful situations described by participants involved directly contending with adults.

Table 17 Gender, Self-Identified Leadership Style & Key Themes

Self -Identified Style	Gender M (N=43) F (N=52)	Key Themes Number and Percentage by Gender	Highest Frequency Combined Male and Female Responses (N=95)
Collaborative	M 34.8% (N=15)	Building relationships 26.6% (N=4), community issues 26.6% (N=4), contending with school councils 6.6% (N=1), federation Issues 6.6% (N=1), and parent concerns with staff 20.0% (N=3).	Community Issues 26.1% (N=11)
	F 51.9% (N=27)	Building relationships 18.5% (N=5), community issues 25.9% (N=7), contending with school councils 7.4% (N=2), conflict with staff 3.7% (N-1), parent concerns with staff 25.9% (N=7), police involvement 22.2% (N=6), and teacher incompetence 7.4% (N=2)	Parent Concerns with Staff 23.8% (N=10)
Direct/Direct-Informational	M 39.5% (N=17)	Challenging authority 11.7% (N=2), federation issues 5.8% (N=1), parent concerns with staff 17.6% (N=3), policy issues 5.8% (N=1) and teacher incompetence 17.6% N=3).	Parent Concerns with Staff 29.0% (N=9)
	F 26.9% (N=14)	Challenging authority 7.1%, (N=1), contending with school councils 7.1% (N=1), parent concerns with staff 42.8% (N=6) and teacher incompetence 14.2% (N=2).	Teacher Incompetence 16.1% (N=5)
Non-Directive	M 4.6% (N=2)	Building relationships 50.0% (N=1) and parent concerns with staff 50.0% (N=1).	Parent Concerns with Staff 50.0% (N=3)
	F 7.6% (N=4)	Contending with school councils 25.0% (N=1), parent concerns with staff 50.0% (N=2), and teacher incompetence 25.0% (N=1).	
Transformational	M 20.9% (N=9)	Challenging authority 11.1% (N=1), parent concerns with staff 33.3% (N=3), teacher incompetence 22.2% (N=2).	Parent Concerns with Staff 28.5% (N=4)
	F 9.6% (N=5)	Challenging authority 20.0% (N=1), contending with school councils 40.0% (N=2), and teacher incompetence 20.0% (N=1)).	Teacher Incompetence 21.4% (N=3)

As seen in Table 18, of the female participants the highest frequency key theme self-identified in stressful situations described in the combined three locations (rural, urban, and suburban) was parental concerns with staff 23.9% (N=11). Although the frequency is very low, among female administrators in suburban schools, participants

self-identified contending with community issues 42.8% (N=3). Of the male participants the highest frequency key theme self-identified in stressful situations described in the combined three locations (rural, urban, and suburban) was parental concerns with staff 23.8% (N=10). Among male administrators in urban schools, participants self-identified contending with community issues 13.6% (N=3) and teacher incompetence 13.6% (N=3) as having the highest frequency in stressful situations. Additionally, although the frequencies are very low, among the male administrators in suburban schools, participants self-identified contending with parent concerns with staff 44.4% (N=4) as well as building relationships 44.4% (N=4) as having the highest frequency. Also seen in Table 18, of the female participants 23.9% (N=11) and male participants 23.8% (N=10) the highest frequency key theme self-identified in stressful situations described in the combined locations (rural, urban, and suburban) was parental concerns with staff.

Table 18 School Locations & Key Issues for Male & Female Participants
(Items in bold type indicates the highest combined frequency)

Key Issues	Males Rural N=11	Males Urban N=22	Males Suburban N=9	Total Male N=42	Females Rural N=11	Females Urban N=28	Females Suburban N=7	Total Female N=46
Building Relationships	18.1% N=2	9.0% N=2	44.4% N=4	19.0% N=8	9.0% N=1	14.2% N=4	14.2% N=1	13.0% N=6
Challenging Authority	0% N=0	9.0% N=2	11.1% N=1	7.1% N=3	9.0% N=1	0% N=0	14.2% N=1	4.3% N=2
Community Issues	0% N=0	13.6% N=3	22.2% N=2	11.9% N=5	0% N=0	21.4% N=6	42.8% N=3	19.5% N=9
Contending with Parent Councils	0% N=0	4.5% N=1	11.1% N=1	4.7% N=2	18.1% N=2	10.7% N=3	14.2% N=1	13.0% N=6
Conflict with Staff	0% N=0	0% N=0	0% N=0	0% N=0	0% N=0	10.7% N=3	0% N=0	6.5% N=3
Federation Issues	9.0% N=1	9.0% N=2	0% N=0	7.1% N=3	0% N=0	0% N=0	0% N=0	0% N=0
Parent Concerns with Staff	**36.3% N=4**	**9.0% N=2**	**44.4% N=4**	**23.8% N=10**	**36.3% N=4**	**25.0% N=7**	**0% N=0**	**23.9% N=11**
Police Involvement	0% N=0	0% N=0	0% N=0	0% N=0	0% N=0	21.4% N=6	14.2% N=1	15.2% N=7
Policy Issues	0% N=0	4.5% N=1	0% N=0	2.3% N=1	0% N=0	0% N=0	0% N=0	0% N=0
Staff Conflict	0% N=0	0% N=0	0% N=0	0% N=0	0% N=0	0% N=0	0% N=0	0% N=0
Teacher Incompetence	9.0% N=1	13.6% N=3	22.2% N=2	14.2% N=6	18.1% N=2	7.1% N=2	14.2% N=1	10.8% N=5

Summary.

The hypothesis that those educational leader participants who are either transformational or collaborative in their leadership behaviour style would experience less stress was refuted in the analysis of the quantitative data as there was no correlation between the LSI Style subscale, LSI Concern subscale, and ASI stress levels. In addition, there was no relationship between the self-identified leadership behaviour style and ASI

stress levels.

Data indicated that administrators did experience stress mostly when contending with administrative constraints and interpersonal conflicts. It is noteworthy that when combined, most participants self-identified the preferred leadership behaviour style as collaborative followed by direct/direct-informational, transformational and lastly non-directive. Most female participants (51.9%, N=27) employed collaborative leadership followed by direct/direct-informational (26.9%, N=14) and most males preferred direct/direct-informational (39.5%, N=17) followed by collaborative leadership (34.8%, N=15). Interestingly, between female (9.6%, N=5) and male (20.9%, N=9) participants more males preferred transformational leadership. All leadership styles regardless of gender identified parent concerns with staff as the highest frequency of stressful situations.

Although there was no correlation between leadership behaviour style and the level of stress, data did reveal that administrators do contend with various stressful situations mostly focused on administrative constraints such as dealing with inadequate time or resources and interpersonal concerns revolving around various stakeholders, most often parents. In addition, the qualitative data identified that the situations administrators identify as stressful involve contentious issues with adults rather than students. Conclusions, implications and recommendations for further research based on these results are presented in Chapter 5.

CHAPTER 5 – DISCUSSION

This research study showed that there was no correlation between leadership style and stress. The researcher predicted that the leader who was more transformational or collaborative would experience less stress and the leader who was more direct/direct-informational or non-directive would experience more stress. The hypotheses were rejected as there was no support for any mitigation of stress as a function of leadership behaviour style. This was true whether leadership behaviour style was configured by (a) self-identified leadership behaviour style (transformational, collaborative, direct/direct-informational, non-directive, (b) the *Life Style Inventory* ^{TM2} (LSI) Style subscale (Constructive, Passive/Defensive, Aggressive/Defensive), or (c) the LSI Concern subscale (People/Satisfaction, Task/Satisfaction, People/Security, Task/Security).

The results from this study support previous findings. Yackel (1984) determined there was no relationship between leadership behaviour style, administrator stress, and the role of coping methods employed by educational leaders. Yackel divided participants into task-oriented administrators and relationship-oriented administrators. The results demonstrated that task-oriented administrators and relationship-oriented administrators perceived themselves similarly in terms of total frequency and intensity of administrative stress.

Although minimal evidence in the literature review demonstrated that there was a direct relationship between stress and leadership behaviour style, based on most of the findings in the literature review, those leaders who exhibited either transformational or collaborative leadership behaviour styles could improve organizational citizenship,

improve job satisfaction, improve organizational commitment, improve employee motivation, positively impact student engagement, and alter teacher behaviour (Leithwood & Jantzi, 1999; Geijsel et al., 2001; Geijsel et al., 2009; Nguni et al. 2006). Additionally, D'hoore and Vandenberghe (2001) determined that leadership behaviour style impacted organizational stress. Inevitably, improved organizational citizenship, job satisfaction, organizational commitment, employee motivation, and improved teacher behaviour would help to create a more pleasant work environment for all including the contemporary educational leader. One could reasonably expect that positive leadership styles should lead to reduced stress. As this study showed that leadership behaviour style does not directly impact stress for administrators, perhaps further consideration may be given to inquire if improved climate, student engagement, and staff cooperation contribute to improved working conditions and a diminished level of stress for the contemporary educational leader.

Although this study did not support the hypothesis that there is a mitigation of stress in relation to leadership behaviour style, quantitative data indicated that administrative constraints and intrapersonal conflict provided the highest frequency of job-stressors for study participants. In addition, qualitative data indicated that virtually most stress for contemporary educational leaders derived from contending with adults. It may be concluded that regardless of leadership behaviour style educational leaders experience stress. As contemporary educational leaders are faced with increasing demands to produce more results with fewer resources in less time, stress levels will rise. Due to the economic decline and recent budget reductions there will be fewer people

applying to administrative positions unless something drastic is done to make leadership positions more attractive to teachers (CAP, 2003; Hargreaves & Fink, 2004). The MOE should provide dedicated funding to ensure appropriate levels of administrative, clerical and custodial support are available to schools relative to the number of students in a school. In addition, more support should be provided in the areas of mentoring, peer coaching, and professional learning (IEL, 2008; NCSL, 2009). This would assist the educational leader's ability to alleviate intrapersonal conflict with greater efficacy.

Administrative constraints refer to a lack of available time to schedule meetings and fulfill the expectations of the administrative role. Intrapersonal conflict refers to conflicts between one's performance and one's internal beliefs and personal and professional expectations. Williams (2001) identified the top dissatisfiers for principals in Ontario to include perceived problems with the management and implementation of provincially-mandated changes for accountability purposes, the dwindling availability of financial and human resources at the school level, and the ever growing time demands. In general, increasing job demands, lack of support, time pressures, and overall stress are troublesome to the present day educational leader and certainly deterrents to candidates contemplating becoming a future educational leader (CPCO, 2004; Educational Research Service, 1998).

Additionally, the IEL (2008) indicated three major deterrents to entering a leadership position, including job stress, increasing job demands, and the negative impact on the quality of life. The downloading of administrative tasks to schools is growing exponentially. Educational leaders are being asked to do markedly more in a short

timeframe and with minimal resources. Stress levels for contemporary educational leaders are destined to become heightened as the philosophy of doing more with less permeates school boards across the Province of Ontario.

The qualitative data indicated that virtually all stress for contemporary educational leaders derived from contending with adults. The key issues identified in the qualitative data included (a) the need to build relationships, (b) leadership authority being challenged, (c) community issues, (d) the need to contend with parent councils, (e) conflict with staff, (f) federation issues, (g) parental concerns related to staff, (h) police involvement, (j) policy issues, (k) staff conflict, and (l) teacher incompetence. Regardless of gender or work location the highest frequency key theme self-identified in self-reported stressful situations was contending with parental concerns related to staff.

The ability or failure of a contemporary educational leader to cope with stress may have repercussions for teachers and students (Allison, 1997). Varying levels of stress and increasing demands are an inevitable consequence of the role for a contemporary educational leader (Allison, 1999; Catholic Principals' Council of Ontario, 2004; Cooley & Shen, 2000; D'Arbon et al., 2001; Educational Research Service, 1998; Institute for Educational Leadership, 2008; Grimmet & Echols, 2000; Williams, 2001). As the MOE and school boards respond to the demands from teacher unions for improved working conditions, consideration should be given to the job conditions and benefits for contemporary educational leaders. The principal of the early 1980's did not have the same demands as the principal of the new millennium; yet, the government demands higher expectations layered with increased responsibility, less time, and fewer resources.

More changes have occurred in the last 15 years of education than occurred in the previous 30 years. The introduction of a standardized provincial curriculum and reporting process, rapid technological advancements, accountability and transparency expectations, increasingly complex societal and family situations, and the rise of teacher unions have contributed to a very different job description for the contemporary educational leader. CPCO (2004) noted that the additional time required to successfully achieve instructional and operational mandates coupled with the dwindling number of vice principals and reductions in clerical and custodial time may create a mounting stress level for contemporary educational leaders.

Thomson et al. (2003) cited the importance of moving the focus from the unattractive aspects of the job to the reasons why the leadership job is worth doing. Thomson et al. further stated the intrinsic benefits of the contemporary educational leader included (a) the possibility to work with a team of dedicated people, (b) the opportunity to engage in continuous learning, (c) the contribution to a common endeavour, (d) a position of autonomy and flexibility, and (e) an opportunity to shape and influence others in a community. Above and beyond the intrinsic benefits, more should be done to ensure extrinsic benefits for educational leaders, which include monetary gain, ongoing support for growth and development, and human resources support to assist in meeting both their operational and instructional responsibilities. In addition, placing support staff in the way of vice principal, clerical and custodial support staff in every school relative to the number of students would alleviate the level of stress for educational leaders in relation to administrative constraints.

Brock and Grady (2002) identified numerous stressors for contemporary educational leaders, many of which involve contending with adults, such as inadequate performance of employees, negative staff members, conflicts among staff and between parents, and staff and parental complaints. Whan et al. (1996) indicated that administrators experience stress when dealing with difficult teachers whose value system was contrary to their professional expectations for the role of the teacher. The teacher union focus is on the improvement of working conditions of the teacher. School boards and educational leaders focus their attention on providing quality services and programs to students with the intent of improving student achievement. Until teacher unions and Boards of Education agree and act in a manner that places students first there will always remain a level of stress that arises from conflict with adults. At the present time their purpose is almost diametrically opposed. In addition, parents have become very savvy as to what their children are entitled to when it comes to their education. They will make every attempt to ensure Boards, administrators, and teachers alike are held accountable to ensuring a quality education for Ontario students.

Boards should assist contemporary educational leaders in developing the skills and capabilities to contend with stress derived from adults. Boards could offer: (a) workshops on dealing with difficult teachers or parents; (b) develop a "buddy system" whereby administrators call another administrator for advice on handling a difficult situation with a teacher or parent; (c) develop a school level committee to address parent concerns in a collaborative manner; (d) assistance and advice from the school Superintendent; and (e) assistance from Board psychological, social work or joint

employee assistance staff to share and encourage strategies to diffuse adult conflict.

Lastly, building leadership efficacy through professional learning opportunities such as formalized mentorship programs, formal and informal coaching opportunities, relevant professional learning, and peer focus groups would assist to address and reduce the level of stress for educational leaders in relation to intrapersonal conflict and contending with adult conflict (IEL, 2008). It would be prudent for Boards of Education to ensure that leaders have the sharpest of skills in the resolution of conflict, stress management, and effective leadership behaviour style skills and capabilities.

In addition to the two previously mentioned findings, the study also identified two minor findings focused on gender differences and dominant leadership behaviour styles. The self-identified leadership behaviour style data indicated that the largest proportion of females (51.9%) self-identified as employing a collaborative leadership behaviour style while the largest proportion of males (39.5%) self-identified as employing a direct/direct-informational leadership behaviour style. Interestingly, more males than females self-identified as employing a transformational leadership behaviour style. Qualitative data showed that 20.9% of male study participants self-identified as exercising a transformational leadership behaviour style while only 9.6% of female study participants self-identified as exercising a transformational leadership behaviour style.

Williams (2006) determined that most female preferred to exercise a collaborative leadership behaviour style, with females more likely to have a dominant style which is people-oriented and males more likely to have a task-oriented style. Eagly and Johnson (1990) examined the stereotypical impressions of female and male leadership styles

noting that females tended to adopt a more democratic or participative leadership behaviour style (which are most related to transformational and collaborative leadership behaviour styles) while males exhibited a more autocratic style (which is most related to direct/direct-informational and non-directive leadership behaviour styles). Although the study data generally supports the stereotypical impressions of gender preferred leadership styles, there were still some anomalies; such as, a total of 44.4% of males combined self-identified as either exercising a collaborative or transformational leadership style and that more males self-identified as exercising a transformational leadership behaviour style than females. Perhaps a shift is occurring among contemporary educational leaders, regardless of gender, to move towards a leadership style which is most effective at leading and working *with* people rather than a model that evokes a sense of employees working *for* someone. The leadership of the new millennium that would be best received by employees is a leadership that honours the abilities and potential contributions of the employees. The answers to challenges that arise in education do not lie with the administrator but derive from the employees who compose the working community. The leader of the new millennium facilitates rather than dictates.

School boards need to acknowledge the varied generational levels of staff within their Board regardless of teaching or administrative position. Crawford and Strohkirch (2002) outlined the evolution of leadership cultures in education. The first tradition in leadership education was based on the understanding that the primary purpose behind leadership was to accumulate and use authority and control. In this initial leadership practice, the leadership behaviour style was very authoritative. As time progressed there

was an evolution towards the human resource tradition which focused on the employee as a productive part of the systemic equation rather than just a cog in the machine. This was followed by a shift toward a participative, collaborative leadership environment. The focus was on leaders and followers collaborating through self-managed teams in an effort to mobilize their collective knowledge and effort into a synergistic outcome. Boards must acknowledge that the Baby Boomer Generation is virtually retired from the educational setting. Generation X, generation Y and the millenials have different needs, wants and desires. Training contemporary educational leaders to meet the intrinsic demands of the new generation of educators and parents will support their ability to become more effective at leading others to ensure improved student achievement for all students. It is time to break the stereotypical mold as staff and parents are demanding more from their leaders. Sufficient time, resources, and support should be allotted to assist contemporary educational leaders in developing the skills to best lead others in the new millennium.

Recommendations for Further Study

This study answered research questions on leadership behaviour styles and job-related stressors for contemporary educational leaders in one school Board in South Western Ontario. The following recommendations for further research should be considered:

(a) replicate this study at other times in the school year, especially during times identified as highly stressful by school administrators;

(b) replicate this study in other boards throughout Ontario, Canada, and/or the United States;

(c) use an experimental design with prospective and present administrators enrolled in leadership courses espousing stress management and leadership behaviour style training to compare the stress levels of these administrators to those who have completed professional training in managing stress levels of administrators who have not completed the training;

(d) use an experimental design to consider other variables that may impact administrator stressors including school climate, student engagement, staff attitude and student challenges such as poverty, special education, and health issues;

(e) use an experimental design to compare the level of stress for administrators who function in job conditions that are reflective of the increasing younger population of potential administrators;

(f) replicate the study taking into consideration other variables to measure stress, such as physiological and psychological responses to stress; and,

(g) expand the study to measure the impact of stress on staff in comparison to leadership behaviour styles.

The new generation of contemporary educational leaders is very different from the previous one. Boards should be aggressive in their attempts to train potential leaders and ensure the right people are selected to step into the role of administrators. The job of leaders is critically important as educational leaders positively impact student achievement (Leithwood, et al., 2004; Waters, Marzano & McNulty, 2003). In addition, succession planning should consider finding the right person for the job. Just as important

is keeping the right person in the job for a long time. Professional development should be relevant and interesting to the leader in the new millennium (NCSL, 2009). In addition, intrinsic and extrinsic incentives should be attractive benefits for aspiring and present-day leaders (CAP, 2003).

The IEL (2008) report reviewed data concerning promising practices that require planning and future attention to support succession planning; as well as, ongoing support for contemporary educational leaders to ensure effectiveness and longevity in their role. It was suggested that leadership capacity be built in the following four areas (a) human resource management; (b) balanced leadership approaches, (c) clear communications around the expectations of the principal, and (d) the need for comprehensive data analysis and review. The IEL (2008) report clarified that human resources should not only be only about the selection process since succession planning is also inclusive of the early identification and training of potential leaders. A business plan is critical to assure accessibility to acquire qualifications and the diversity of candidates who are reflective of the school communities. Additionally, more opportunities for greater school autonomy and decision making with fewer hierarchical models of leadership are preferred. A greater balance between centralized and school site decision making is needed to balance leadership behaviour styles. Leadership training on effective leadership behaviour styles will need to take precedence.

Limitations to the Study

One limitation to this study was that stress was quantitatively measured by work-related stressors using the ASI instrument. In addition, study participants were invited to

self-identify a work-related stressful situation. Determining the complexity of stress affecting an individual would be a massive endeavour, especially to consider all the factors within this dissertation; however, a possible consideration to further strengthen the research study would be to include various other considerations and tools to measure stress for administrators. Considerations could include health-related symptoms of stress, such as physiological and psychological reactions to stress. A further consideration would be to develop a varied experimental design whereby a control group would receive stress management training with the intent to measure whether the training yielded a positive impact for educational leaders.

Secondly, study participants self-identified their leadership behaviour style (transformational, collaborative, direct/direct-informational or, non-directive) based on reading a brief descriptor for each leadership behaviour style as provided by the researcher. Improvement to future replications of this study may include a more detailed description of the four leadership behaviour styles for the study participants. A further consideration would be to develop a varied experimental design whereby an experimental group would receive training on the strengths and implications of various leadership behaviour styles. The inclusion of an experimental group would enable the researcher to determine if the training had a positive significant impact for study participants.

Thirdly, a limitation to the study was that it was conducted in only one Board of Education in Southwestern Ontario, hence, the data may not apply to educational leaders in private institutions or individuals in other provinces or states where leadership expectations or working conditions may vary. Future studies should be conducted in

multiple Boards of Education across the province, Canada or the United States.

In Summary.

Although this study showed that there was no correlation between leadership style and stress, valuable information was gleaned from the data that will lead to future studies. Both quantitative and qualitative data strengthened the understanding and context of administrator stress. The data analyzed indicated that educational leaders experienced stress with administrative constraints and intrapersonal conflict while qualitative data indicated that issues with adults created the greatest stress.

The literature review supported the researchers' belief that educational leaders positively impact student achievement, staff and school climate. Literature on the topic of succession planning underscored the importance of ensuring the right conditions and support needed to develop, select and support aspiring and present educational leaders. This study encourages continued research concerning leadership stress, a philosophical and practical understanding of leadership behaviour styles and succession planning to ensure success for educational leaders and in turn staff and students.

REFERENCES

Adams, J. D. (1980). Improving stress management: An action-research base intervention. *In J.D. Adams (Ed.), Understanding and managing stress: A book of readings*. San Diego, California: University Associates.

Allison, D. G. (1997). Assessing stress among public school principals in British Columbia. *Psychological Reports, 80*, 1103-1114.

Baron, D. (2007). Facilitative leadership: from connecting to collaborating. *Principal Leadership, 8*(2), 56-58.

Bass, B. M. (2000). The future of leadership in learning organizations. *The Journal of Leadership Studies, 17*(3), 5-21.

Blake, R. and Mouton, J. (1964). *The managerial grid: the key to leadership excellence.* Houston: Gulf Publishing Co.

Bosma, H., Peter, R., Seigrist, J., & Marmot, M. (1998). Two alternative job stress models and the risk of coronary heart disease. *American Journal of Public Health. 88,* 68-74.

Bossi, M. (2008). Six dimensions of leadership. *Leadership, 37*(3), 8-12.

Brock, B. L., & Grady, M. L. (2002). *Avoiding burnout: A principal's guide to keeping the fire alive.* California: Corwin Press.

Burns, J. M. (1978). *Leadership.* New York: Harper & Row.

Bush, T., Glover, D. & Harris, A. (2007). Review of school leadership development, University of Warwick for NCSL. Abstract obtained from Review of the

landscape: leadership and leadership development 2008: A review of what is known about effective leadership and leadership development NCSL.

Canada, B. O. (2000). What kind of leader are you? *School Administrator, 57*(8), 56.

Canadian Association of Principals, (1999). Leadership crisis study: Part I – 1999. Retrieved on December 24, 2008 from www.cdnprincipals.org.

Canadian Association of Principals, (2000). Leadership crisis study: Part II – 2000. Retrieved on December 24, 2008 from www.cdnprincipals.org.

Canadian Association of Principals, (2003). Leadership crisis study: Part III – 2003. Retrieved on December 24, 2008 from www.cdnprincipals.org.

Catholic Principals' Council of Ontario. (2004). Role of the principal: Discussion paper. Retrieved December 22, 2008 from http://www.cocp.on.ca/news/positionpaper.aspx

Chance, D. L., & Chance, E.W. (2002). Educational leadership and organizational behaviour: Theory to practice. New York: Eye on Education.

Cooke, R. A. & Lafferty, J.C. (1982). Level I: Life styles inventory an instrument for assessing and changing the self-concept of organizational members. Plymouth, Michigan: Human Synergistics.

Cooke, R. A., & Rousseau, D. M. (1983). Relationship of life events and personal orientations to symptoms of strain. *Journal of Applied Psychology, 68*(3), 446-458.

Cooke, R. A., Rousseau, D.M., & Lafferty, J,C. (1987). Thinking and behavioural styles: Consistency between self-descriptions and descriptions by others. *Journal of Educational and Psychological Measurement, 47,* 815- 823.

Cooley, V. E. & Shen, J. (2000). Factors influencing applying for urban principalship. *Education and Urban Society. 32(4),* 443-454.

Cooper, C. L., Lawson, G., & Price, V. (1986). A survey of stress at work. *Journal of Social Occupational Medicine, 36,* 71-72.

Cooper, C. L., & Smith, M. (1985). *Job stress and blue collar work.* Chichester: John Wiley & Sons.

Corley, K. C., Mauck, H. P., & Shiel, F. O. M. (1975). Cardiac responses associated with 'yoked chair' shock avoidance in squirrel monkeys. *Psychophysiology, 12,* 439-444.

Cox, T. (1978). *Stress.* Baltimore, MD: University Park Press.

Crawford, C. B., & Strohkirch, C. S. (2002). Leadership education for knowledge Organizations: A primer. *Journal of Leadership Education. 1*(1), 231-38.

Creswell, J.W. (2008). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddler, NJ: Prentice Hall.

D'Arbon, T., Duignan, P., Dwyer, J., & Goodwin, K. (2001). *Leadership succession in Catholic schools in New South Wales: A research project on behalf of Catholic education commission- New South Wales- phase two final report.* Australia: School of Educational Leadership Australian Catholic University: Strathfield, Australia.

Davis, E. E. (2006). *Qualities for effective leadership: school leaders speak.* Maryland: Rowman & Littlefield Education.

D'hoore, W. & Vandenberghe, C. (2001). Leadership, organizational stress, and

emotional exhaustion among hospital nursing staff. *Journal of Advanced Nursing. 35(4),* 533-542.

Dunham, J. & Klafehn, K.A. (1990). Transformational leadership and the nurse executive. *Journal of Nursing Administration, 20*, 28-34.

Duvall, C. K. (2001). The relationship between thinking patterns and physiological symptoms of stress. *Social Behaviour and Personality, 29*(6), 537-546.

Eagly, A. H. & Johnson, B.T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin, 108*(2), 253-256.

Eaker, R., Dufour, R., & Dufour, R. (2002). *Getting started: reculturing schools to become professional learning communities.* Indiana: National Education Service.

Educational Research Service. (1998). Is there a shortage of qualified candidates for openings in the principalship? Retrieved on December 22, 2008 from www.naesp.org/client_files/shortage-98.pdf.

Ministry of Education, (2008). *Energizing Public Education*, Government Document Province of Ontario.

Friend, M., & Cook, L., (1992). *Interactions: Collaboration skills for school professionals.* White Plains, NY: Longman.

Fortin, J. (1989). Machiavellian Behaviour and School Principals' Level of Stress, (ERIC) Document Reproduction Service No. Ed 312 780.

Fullan, M. (2002). *The new meaning of educational change*. New York: Teacher's College press.

Fullan, M., & Stiegelbauer, S. (1991). *The new meaning of educational change* (2nd ed.). New York: Teacher's College Press, Columbia University.

Geijsel, F. P., Sleegers, P.J.C., & van den Berg, R. (1999). Transformational leadership and the implementation of large-scale innovation programs. *Journal of Educational Administration, 37*(4). Pp. 309-328.

Geijsel, F. P., Sleegers, P.J.C., van den Berg, R. & Kelchtermans, G. (2001). Conditions fostering the implementation of large-scale innovation programs in schools: Teachers' perspectives. *Educational Administration Quarterly, 37,* 130-166.

Geijsel, F. P., Sleegers, P.J. C., Stoel, R.D., & Kruger, M.L. (2009). The effect of teacher psychological and school organizational and leadership factors on teacher professional learning in dutch schools. *The Elementary School Journal, 109(4),* 406-427.

Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (2007). *Supervision of instruction: A developmental approach.* USA: Pearson Education.

Gmelch, W. H. (1996). Breaking out of the superintendent stress trap. *The School Administrator, 3*(54), 32-39.

Gmelch, W. H., & Swent, B. (1982). Management team stressors and their impact on administrators' health. *Journal of Educational Administration, 2,* 193-205.

Goleman, D. (1995). *Emotional intelligence.* Bantam Books: New York.

Grimmett, F. H., Echols, F. H. (2000). Teacher and administrator shortages in changing times. *Canadian Journal of Education. 25*(4), 328-343.

Hargreaves, A., & Fink, D. (2004). The seven principles of sustainable leadership.

Educational Leadership. 61(7), 8-13.

Hay Management Consultants (2000). *The lessons of leadership.* Retrieved December 30, 2008 from http://www.transforming.co.uk/downloadable/The_Lessons_of_Leadership.pdf.

Heart and Stroke Foundation of Ontario (2000, January). The heart smart talk- stress the heart of the matter. Presentation to HSF Board, Windsor, Ontario.

Hinckley, P. (2001). When pigs fly and cats bark. *The School Administrator, 58,* 14-16.

Holmes, T. H. & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research, 11,* 213-225.

Howell, J. M. & Frost, P. J. (1989). A laboratory study of charismatic leadership. *Organizational Behaviour and Human Decision Process, 43,* 243-269.

Howitt, C. (1999) *An investigation of leadership styles in decentralized and centralized schools.* Windsor, ON: University of Windsor.

Howley, A., Pendarvis, E. & Gibbs, T. (2002). Attracting principals to superintendency: conditions that make a difference to principals, *Education Policy Analysis Archives, 10 (43).* Retrieved on December 26, 2008 from http://epaa.asu.edu/epaa/v10n43.html.

Huffman, J. B., & Jacobson, A. L. (2003). Perspectives of professional learning communities. *International Journal of Leadership in Education. 6*(3), 239-250.

Human Synergistics, (1989). Life Styles Inventory.

Immen, W. (2004, June 15). Tackling the hidden health menace. *The Globe and Mail,* B12.

Independent Schools Queensland. (2006). The principalship shortage and what we should be doing about it. *Briefing, 10* (2), 9-14.

Institute for Educational Leadership. (2008). Final Report Succession Planning: schools and school boards. Ontario. Ministry of Education. Retrieved on December 23, 2008 from http://www.education-leadership-ontario.ca/home.shtml

Ivancevich, J. M., & Matteson, M. T. (1980). *Stress and work.* Glenview, IL: Scott, Foresman.

Kaser , J., Mundry, S., Stiles, K.E., & Loucks-Horsley, S. (2006). *Leading every day: 124 actions for effective leadership.* CA: Corwin Press.

Katz, D., Maccoby, N., & Moorse, N., (1959). *Productivity supervision and morale in an office situation.* Ann Arbour, Mich.: Institute for Social Research.

Keegan, A.E. & Den Hartog, D. N. (2004). Transformational leadership in a project-based environment: a comparative study of leadership styles of project managers and line managers. *International Journal of Project Management, 22*, 609-617.

Kelehear, Z. (2004). Controlling stress. *Principal Leadership. 5*(93), 30-33.

Kendall-Reed, P., & Reed, S. (2004). *The complete doctor's stress solution: Understanding, treating and preventing stress and stress related illnesses.* Toronto: Robert Rose Publishing.

Koch, J., Tung, R., Gmelch, W.H. & Swent, B. (1984). Job stress among school administrators. *Journal of Applied Psychology, 67*(4), 493-499.

Kochan, F., Spencer, W.A., & Mathews, J. (1999). *The changing face of the principalship in Alabama: Role, perceptions and gender.* (ERIC Document

Reproduction Service No. ED 431 232)

Kotter, J. P. (1998). *Harvard Business Review on Leadership.* Boston: Harvard Business School Publishing.

Kouzes, J. M., & Posner, B. Z. (2002). *The leadership challenge.* San Francisco: Jossey-Bass Publishers.

Kubala, J.J. (2002). Leadership strategies of performance measures impacts in public sector management: A national content analysis. (ERIC Document Reproduction Service No. ED 470 771)

Lafferty, J. C. (1973). *Level I: Life styles inventory (self-description).* Plymouth, MI: Human Synergistics.

LaMonica, E. L. (2005). Nursing leadership and management: An experiential approach. New York: Springer Publishing Company.

Lawson, J. E. (2008). Women leaders in high poverty community schools: work – related stress and family impact. *Canadian Journal of Education, 31*(1), 55-77.

Lazurus, R.S. (1976). *Patterns of Adjustment.* New York: McGraw-Hill.

Leithwood, K. A. (1993). *Contributions of transformational leadership to school restructuring.* Paper presented at the annual meeting of the University of Council for Educational Administration, Houston. ED 367 061.

Leithwood, K. A. (1994). Leadership of school restructuring. *Education Administration Quarterly, 30*(4), 498-518.

Leithwood, K. A. (2001). School leadership in the context of accountability policies. *International Journal of Education, 4*(3), 217-236.

Leithwood, K. A. & Duke, D. L. (1998). Mapping the Conceptual Terrain of Leadership: A Critical Point of Departure for Cross Cultural Studies. *Peabody Journal of Eudcation, 73*(2), 31-50.

Leithwood, K. A. & Prestine, N. (2002). Unpacking the challenge of leadership at the school and district level. *Yearbook National Society of the Study of Education, 1,* 42-64.

Leithwood, K. A., Steinback, R. & Jantzi, D. (2002). School leadership and teachers' motivation to implement accountability policies. *Educational Administration Quarterly, 38(1),* 94-119.

Leithwood, K. A., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning. A review of research for the Learning from Leadership Project. New York,* NY: The Wallace Foundation, Center for Applied Research and Educational Improvement and Ontario Institute for Studies in Education.

Leithwood, K. A., Day, C., Sammons, P., Harris, A., & Hopkins, D. (2006). *Successful school leadership: What it is and how it influences pupil learning,* NCSL/Department for Education & Skills, University of Nottingham.

Levin, J. (1991). The circumflex pattern of the life styles inventory: A re-analysis. *Journal of Educational and Psychological Measurement, 51,* 567- 572.

Lewis, P. & Murphy, R. (2008). New directions in school leadership. *In School Leadership Management, 28*(2), 127- 46.

Luke, A. (2000). Critical literacy in australia: A matter of context and standpoints.

Journal of Adolescent and adult literacy, 43(5), 448-461.

Malone, B. G., Sharp W., & Thompson, J. C. (2000). *The Indiana principalship: perceptions of principals, aspiring principals, and superintendents.* (ERIC Document Reproduction Service No. ED 447 076)

Maslow, A. H. (1954). *Motivation & personality.* New York: Harper & Brothers Publishing.

McEwen, B. (2003). *The end of stress as we know it.* Washington DC: Dana Press.

McIntyre, F. (2005). The teacher shortage is over. *Professionally Speaking,* June 2005, 13-15.

Mendel, C. M. Watson, R. L., & MacGregor, C. J. (2002). A study of leadership behaviour of elementary principals compared with school climate. A paper presented at Southern Regional Council for Educational Administrators (Kansas City, Mo, Oct. 3-6, 2002)

Miller, L. H., & Dell Smith, A. D. (1993). *The stress solution: An action plan to manage stress in your life.* New York: Pocket Books.

Milne, C. & Mackinnon, M., (2008). *Education statues and regulations of Ontario 2009 Edition.* Ontario: LexisNexis.

Mind Tools (2001). *Mastering stress for optimism performance*. Retrieved Dec.1, 2004, from www. mind tools.com/smundstr.html.

National College of School Leadership. (2006). *Leadership succession: Securing the next generation of school leaders.* Nottingham, England. NSCL.

National College of School Leadership. (2006). *What we know about school leadership.*

Nottingham, England. NSCL.

National College of School Leadership. (2009). *Developing outstanding leaders:Professional life histories of outstanding headteachers*. Nottingham, England. NCSL.

Nguni. S., Sleegers, P. & Denessen, E. (2006). Transformational and transactional leadership effects on teachers job satisfaction, organizational commitment and organizational citizenship behaviour in primary schools: The tanzanian case. *School Effectiveness and School Improvement, 17*, 145-177.

Parkay, F. & Hall, G. (1992). *Becoming a principal*. Boston: Allyn and Bacon.

Podsakoff, P.M., MacKenzie, S.B., Moorman, R. H., & Fetter, R. (1990). Transformational leaders' behaviors and effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly, 1*(2), 107-142.

Rawlins, C. L., & Daumer, H. J. (1987). Police manager life style choices: A high need for security. *Journal of Police Sciences & Administration, 15*(2), 145-152.

Reynolds, N.R., Timmerman, G., Anderson, J. & Stevenson, J.S. (1992). Meta-analysis for descriptive research. *Research Nurse Health, 15*(6), *467*-475.

Selye, H. (1956). *The stress of life.* New York: McGraw-Hill.

Selye, H. (1974). *Stress without distress.* New York: Lippincott & Crowell.

Smith, L.A., Roman, A., Dollard, M. F., Winefield A. H., & Siegrist, J. (2005). Effort-reward imbalance at work: The effects of work stress, anger and cardiovascular disease symptoms in a community sample. *Stress and Health, 21,* 113-128.

Stogdill, R.M., (1963). *Manual for the leader behaviour description questionnaire form XII.* Columbus: OH: Bureau of Business Research, Ohio State University.

Terril, J. L. (1993). Coping With Stress in Difficult Times, *NASSP Bulletin 77*(550), 89-93.

Thomson, P., Blackmore, J., Sachs, J. and Tregenza, K. (2003). High states principalship-sleepless nights, heart attacks and sudden death accountability: reading media representation of the United States principal shortage. *Australian Journal of Education. 47*(2), 118-132.

Wang, M.C., Haertel, G.D., & Walberg, H.J. (2003). *What influences learning? A content analysis of review literature.* ProQuest Information & Learning Company Heldref Publications.

Ware, M. E., Leak, G. K., & Perry, N. W. (1985). Life styles inventory: Evidence for its factorial validity. *Psychological Reports, 56,* 963-968.

Waters, J. T. (2003). *Leadership that works: What we can learn from 25 years of research.* Presented t the CCSSO Fall Policy Conference November 7-9, 2003 Indianapolis, IN. Denver, CO: Mid-continent Research for Education and Learning.

Waters, J. T., & Marzano, R.J. & McNulty, B. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement.* Denver, CO: Mid-continent Research for Education and Learning.

Waters, J. T., & Marzano, R.J. (2006). *School district leadership that works: The effect of superintendent leadership on student achievement*. Denver, CO: Mid-continent

Research for Education and Learning.

Weindling, D. (2000). *Stages of headship: A longitudinal study of the principalship.* Paper presented at American Educational Research Association, New Orleans, 2000. (ERIC Document Reproduction Service No. ED 451 591)

Whan, L.D. & Thomas, A.R. (1996). The principalship and stress in the workplace: an observational and physiological study. *Journal of School Leadership, 6*(4), 444-465.

Williams, R. B. (2006). Leadership from school reform: do principal decision making styles reflect a collaborative approach? *Canadian Journal of Educational Administration and Policy, 53*, 2-22.

Williams, R. B. (1997). The relationship between personal characteristics and situation Complexity and decision-making style flexibility in New Brunswick school Principals. A dissertation. (UMI No. 9729635)

Williams, T. (2001). *The unrecognized exodus, unaccepted accountability: the looming shortage of principals and vice principals in Ontario public school boards.* Ontario Principals' Council.

Williams, T. (2001). The unseen exodus. *The OPC Register, 3*(3), 11-14.

William, S. & Cooper, L. (2002). *Managing workplace stress: A best practice.* Chichester West Sussex, England: John Wiley & Sons Ltd.

Wolff, H.G. & Goodell, H. (1968). *Stress and Disease* (2nd Edition). Springfield, IL: CC Thomas.

Wolf, S. & Wolff, H.G. (1997). *Human gastric function* (2nd Edition). New York: Oxford

University.

Yackel, I. (1984). *An Analysis of Leadership Styles and Stress in the Rural Principalship.* (ERIC Document Reproduction Service No. ED 260 511.

APPENDIX A
Definition of Terms

Administrator – An educational leader in the role of superintendent, principal or vice-principal.

Collaborative Leadership - Collaborative leaders solve problems through a meeting of the minds of equals (Glickman et al., 2007).

Direct/Direct-Informational Leadership - Direct/direct informational leaders are informative, decisive and clear about expectations for staff. This leadership behaviour style revolved around expertise, confidence, and limited choice on the part of the staff (Glickman et al., 2007).

Educational Leader - A superintendent, principal or vice principal.

Leadership - An individuals' ability to influence and guide others in an organization to achieve a goal or implement change.

Non-Directive Leadership - Non-directive leaders assume staff members have the ability to think and act independently. The role of the leader is to assist the staff in the process of thinking through his/her actions (Glickman et al., 2007).

Principal/Vice-Principal – An educational leader at a school site.

Stress - Stress is a state of dynamic tension created when one responds to perceived pressures from within oneself and the outside environment (Miller et al., 1993; Hinckley, 2001).

Superintendent - An educational leader in a senior executive position.

Transformational Leadership - When the leader attempts to change the goals of the followers to a higher level that represents the collective interest of leaders and followers (Burns, 1978).

Appendix B
Administrative Stress Index

Please circle one number on the Likert Scale following each statement. Number 5 indicates the highest degree of stress experienced with the statement description and Number 1 indicates the lowest degree of stress experienced with the statement description.

1. Complying with state, federal and organizational rules.	1	2	3	4	5
2. Feeling that meetings take up too much time.	1	2	3	4	5
3. Trying to complete reports and other paperwork on time.	1	2	3	4	5
4. Trying to gain public approval and/or financial support for school programs.	1	2	3	4	5
5. Trying to resolve parent/school conflicts.	1	2	3	4	5
6. Evaluating staff members' performance.	1	2	3	4	5
7. Having to make decisions that affect the lives of individual people that I know (colleagues, staff members, students, etc.).	1	2	3	4	5
8. Feeling that I have too heave a work load, one that I cannot possibly finish during the normal work day.	1	2	3	4	5
9. Imposing excessively high expectations on myself.	1	2	3	4	5
10. Being interrupted frequently by telephone calls.	1	2	3	4	5
11. Feeling I have to participate in school activities outside of the normal working hours at the expense of my personal time.	1	2	3	4	5
12. Handling student discipline problems.	1	2	3	4	5
13. Feeling that the progress on my job is not what it should or could be.	1	2	3	4	5
14. Feeling staff members don't understand my goals and expectations.	1	2	3	4	5
15. Trying to resolve differences between/among staff members.	1	2	3	4	5
16. Being involved in the collective bargaining process.	1	2	3	4	5
17. Writing memos, letters and other communications.	1	2	3	4	5
18. Administering the negotiated contract (grievances, interpretations, etc.).	1	2	3	4	5

19. Supervising and coordinating the tasks of many people.	1	2	3	4	5
20. Trying to resolve differences between/among students.	1	2	3	4	5
21. Thinking that I will not be able to satisfy the conflicting demands of those who have authority over me.	1	2	3	4	5
22. Preparing and allocating budget resources.	1	2	3	4	5
23. Having my work frequently interrupted by staff members who want to talk.	1	2	3	4	5
24. Knowing I can't get information needed to carry out my job properly.	1	2	3	4	5
25. Feeling pressure for better job performance over and above what I think is reasonable.	1	2	3	4	5
26. Trying to influence my immediate supervisor's actions and decisions that affect me.	1	2	3	4	5
27. Not knowing what my supervisor thinks of me, or how he/she evaluates my performance.	1	2	3	4	5
28. Feeling that I have too little authority to carry out responsibilities assigned to me.	1	2	3	4	5
29. Speaking in front of groups.	1	2	3	4	5
30. Being unclear on just what the scope and responsibilities of my job are.	1	2	3	4	5
31. Attempting to meet social expectations (housing, clubs, friends, etc.).	1	2	3	4	5
32. Trying to resolve differences with my supervisor.	1	2	3	4	5
33. Feeling that I have too much responsibility delegated to me by my supervisors.	1	2	3	4	5
34. Feeling that I am not fully qualified to handle my job.	1	2	3	4	5
35. Feeling not enough is expected of me by my superiors.	1	2	3	4	5

APPENDIX C
Demographic Data Sheet

Please take a few minutes to answer the following demographic questions. Thank you.

Age: (Please circle one) 25-30 31-35
36-40 41-45
46-50 51-55
56-60 Over 60

Sex: (Please circle one) Male Female

Marital Status: (Please circle one) Single Married

Number of children: _____ (total)

Number of children still living at home: _____

Educational Level: (Please circle one)
- Master of Education
- Master of Education + Administrative Certification
- Education Specialist
- Doctoral Candidate
- Ph.D/Ed. D.

Years in present position: _____
Total years of administrative experience: _____
Number of people you supervise/evaluate: _____
Grade range of school. Please specify: _____ (Example K- 3, K-8, 4-8, 9-12 or other)
Type of school: (Please circle one) Urban Rural Suburban

Total enrollment of the school: _____

Percentage of students in Special Education: _____
Approximate number of hours worked per week (including attending school functions, family of school meetings, system principal meetings etc..: _____

APPENDIX D
Qualitative Questionnaire

Please take a few minutes to answer three questions.

Question 1: **Briefly** describe a potentially stressful situation at work in your role as an administrator that you were able to distress based on your leadership behaviour style. (Example: harassing parent, dealing with an incompetent staff member, student discipline, etc...)

Question 2: **Briefly** describe how you handled the situation.

Question 3: A brief description of four leadership behaviour styles (direct/direct-informational, non-directive, collaborative, transformation leadership) is on the backside of the questionnaire for your reference. Which leadership behaviour style did you use to handle the situation described in your response to question 1? Please circle one

a) direct/direct-informational
b) non-directive
c) collaborative
d) transformational leadership

Please note if you require more room to answer question 1 or 2 please attach an additional paper.

APPENDIX D
(Qualitative Questionnaire)

Leadership Behaviour Style Definitions

Transformational

When a leader attempts to change the goals of the followers to a higher level that represent the collective interests of leaders and followers. (Burns, 1978)

Non-Directive

Non-directive leadership is based on the assumption that an individual staff member knows best what changes need to be made and has the ability to think and act independently. The role of the supervisor is to assist the staff in the process of thinking through his or her actions. (Glickman et al. 2007)

Direct/Direct-Informational

Direct/direct information leadership is when the administrator is informative, decisive and clear about staff expectations. This leadership belief revolves around expertise, confidence, and limited choice on the part of the staff. (Glickman et al., 2007)

Collaborative

Collaborative leadership is more than democratic procedures. Collaborative leaders solve problems through a meeting of the minds of equals. (Glickman et al., 2007)

APPENDIX E
Sample Letter to the Superintendents of Education

Mr._____
Superintendent of Schools
_____Board of Education
P.O. Box
_____, Ontario
N_____

Dear Mr._____,

My name is Clara Howitt and I am a Principal with the Greater Essex County District School Board. I am also a student of the Joint PhD Program between Brock University, the University of Western Ontario, Lakehead University and the University of Windsor. As part of my requirements of the PhD program I am to conduct a study for my thesis/dissertation. I am writing you requesting permission to conduct my research study in the Board of Education schools. The intent of the study is to determine leadership behaviours in relation to debilitating factors of stress for contemporary leaders in education. Particular attention will be paid to thinking behaviours and actions of educational leaders and how they may impact each other. I have chosen the _____ Board of Education due to proximity and number of administrators.

Permission is being sought from the Board to send out the surveys to elementary and secondary principals and vice principals as well as senior administrative staff and supervising principals. Consent will be obtained from each administrator involved in the study. All information will be kept confidential, and participation of course will be on a voluntary basis. Findings of the study will be made available on request or can be found at the University of Windsor REB website (www. uwindsor.ca/reb) upon completion of the study.

If you require additional information or if you have any concerns please feel free to contact me at my home, 519-XXX-XXXX or at my office 519-255-3216. My advisor is Dr. Larry Morton and can be reached at the Faculty of Education , University of Windsor 519-253-3000 Ext. 3835.

Thank-you in advance for your consideration.

Most Sincerely,

Clara Howitt

APPENDIX F
Letter to Potential Administrator Participants

Clara Howitt
XXXX Street
XXX, ON XXX XXX

September 7, 2007

Dear Administrator,

My name is Clara Howitt and I am a Principal with the Greater Essex County District School Board. I am also a student of the Joint PhD Program with Brock University, Lakehead University and the University of Windsor. To fulfill the requirements of the PhD program I am required to conduct a study for a dissertation/thesis. My research proposal is the examination of leadership behaviours and stress levels of contemporary leaders in education. Particular attention is being paid to the thinking behaviours and actions of educational leaders and how they may impact each other. It is my intention that the results of the study may prove to be helpful when planning for effective leadership training and for the design of courses for positions of added responsibility.

Enclosed are several surveys - the Life Styles Inventory, the Administrator Stress Index, a data information form, as well as a reflective response questionnaire to a leadership scenario. The survey will take approximately 30 minutes to complete. Please take the time to complete each survey and return it to me in the enclosed self- addressed envelope by October 9, 2007.

All information will be treated anonymously. Participation will be on a voluntary basis. Copies of the research will be available upon request. If you have any further questions or concerns, please do not hesitate to contact me at my office (519) 255-3216 or at Clara_Howitt@ gecdsb.on.ca and I would be pleased to assist you. My advisor is Dr. Larry Morton and he can be reached at (519) 253-3000 Ext. 3835 at the University of Windsor, Faculty of Education. Your assistance in participating in this study is greatly appreciated.

Sincerely,

Clara Howitt

ENCLOSURES

Appendix G

Letter of Information

CONSENT TO PARTICIPATE IN RESEARCH

Please read this page so that you know what this study is about and what you are being asked to do. It is our responsibility to make sure that you are familiar with the general nature of the study, and that you understand the risks and benefits associated with participating in this study. In this way, you can decide in a free and informed manner whether you want to participate or not. By filling out these questionnaires and returning them anonymously in the addressed envelope, you are indicating that you know about the study and that you agree to participate.

TITLE OF THE STUDY: A Study of Stress Reducing Leadership Styles

You are asked to participate in a research study conducted by Clara Howitt, under the supervision of Dr. Larry Morton, from the Faculty of Education, University of Windsor. The study is being done to fulfill the requirements of a PhD. If you have any questions or concerns about the research, please feel fee to contact the primary researcher at clara_howitt@ gecdsb.on.ca or Dr. Larry Morton at (519) 253-3000 Ext. 3835.

PURPOSE OF STUDY

This study will examine the behaviour style and stress of contemporary leaders in education. The subjects include principals, vice-principals, superintendents and other system educational leaders.

PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following:

Complete the Life Styles Inventory (LSI), the Administrative Stress Index (ASI) and demographic data form. In addition, please complete the qualitative questionnaire included in your package. Completing these tasks should take you approximately 30 minutes. Please return the questionnaire, anonymously, by putting the completed questionnaire in the large envelope addressed to the researcher, then send it in the Board courier system. Please courier the signed consent form only to A. Miloyevich at Glenwood School as indicated on the envelope provided.

POTENTIAL RISKS AND DISCOMFORTS
At this time there are no potential risks or potential discomforts in participating in this project.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Answering the questions and thinking about the topics covered may lead you to a greater awareness of your own views and attitudes. You will also know that you have contributed to academic knowledge. Your answers will allow a greater understanding on the topic of educational leadership behaviour and stress.

PAYMENT FOR PARTICIPATION

Participation is voluntary. Remuneration is not provided.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential. Your questionnaire responses are anonymous. The questionnaire has no identifying marks on it, and you should not put your name on any part of the questionnaire.

PARTICIPATION AND WITHDRAW

You can choose whether to be in the study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer and still remain in the study. You will receive an e-mail reminder to complete the survey two weeks after they have been distributed. This is intended as a gentle reminder as the researcher has no way of knowing whether or not you have already returned the survey.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

You can obtain feedback of the study by checking the University of Windsor REB website (www.uwindsor.ca/reb) in the Fall of 2007. If you do not have internet access, you can also obtain feedback sheets posted in the graduate lounge on the second floor of the Faculty of Education.

SUBSEQUENT USE OF DATA

This data will not be used in subsequent studies.

RIGHTS OF THE RESEARCH SUBJECTS
You may withdraw your consent at any time and discontinue participation without

penalty. This study has been reviewed and received ethics clearance through the University of Windsor Research and Ethics Board. If you have questions regarding your rights as a research subject, contact the Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4 at (519)-253-3000, Ext. 3916 or e-mail: lbunn @uwindsor.ca.

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

_____

Signature of the Investigator

_____

Date

_____

APPENDIX H
CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: **A Study of Stress Reducing Leadership Styles**

You are asked to participate in a research study conducted by Clara Howitt, a PhD student at the Faculty of Education, University of Windsor. The information gathered will contribute to the thesis/dissertation of the aforementioned student.

If you have any questions or concerns about the research, please feel free to contact the student, Clara Howitt, at (519)-255-3216 or via email, Clara_Howitt@gecdsb.on.ca or the thesis advisor, Dr. Larry Morton at (519)-255-3000 Ext. 3835.

PURPOSE OF THE STUDY

This study will examine the behaviour style and stress of contemporary leaders in education. The subjects include principals, vice-principals, superintendents and other system educational leaders.

PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following:

Complete the Life Styles Inventory (LSI), the Administrative Stress Index (ASI) and demographic data form. In addition, please complete the qualitative questionnaire included in your package. Completing these tasks should take you approximately 30 minutes. Please return the questionnaire, anonymously, by putting the completed questionnaire in the large envelope addressed to the researcher, then send it in the Board courier system. Please courier the signed consent form only to A. Miloyevich at Glenwood School as addressed on the envelope provided.

POTENTIAL RISKS AND DISCOMFORTS

At this time there are no potential risks or potential discomforts in participating in this project.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Answering the questions and thinking about the topics covered may lead you to a greater awareness of your own views and attitudes. You will also know that you have contributed to academic knowledge. Your answers will allow a greater understanding on the topic of educational leadership behaviour and stress.

PAYMENT FOR PARTICIPATION

Participation is voluntary. Remuneration is not provided.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential. Your questionnaire responses are anonymous. The questionnaire has no identifying marks on it, and you should not put your name on any part of the questionnaire.

PARTICIPATION AND WITHDRAW

You can choose whether to be in the study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer and still remain in the study. You will receive an e-mail reminder to complete the survey two weeks after they have been distributed. This is intended as a gentle reminder as the researcher has no way of knowing whether or not you have already returned the survey.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

You can obtain feedback of the study by checking the University of Windsor REB website (www.uwindsor.ca/reb) in the Fall of 2007. If you do not have internet access, you can also obtain feedback sheets posted in the graduate lounge on the second floor of the Faculty of Education.

SUBSEQUENT USE OF DATA

This data will not be used in subsequent studies.

RIGHTS OF THE RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. This study has been reviewed and received ethics clearance through the University of Windsor Research and Ethics Board. If you have questions regarding your rights as a research subject, contact the Research Ethics

Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4 at (519)-253-3000, Ext. 3916 or e-mail: lbunn @uwindsor.ca.

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the Study of Stress Reducing Leadership Styles as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Subject_____

_____ _____

Signature of Subject

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

_____ _____

Signature of Investigator

APPENDIX I
LETTER OF PERMISSION - HUMAN SYNERGISTICS

Human Synergistics, Inc.
39819 Plymouth Road C8020
Plymouth, MI 48170-8020
Phone: 734.459.1030
Fax: 734.459.5557
Email: info@humansynergistics.com
Web: www.humansynergistics.com

Clara Howitt
2250 Suzanne
LaSalle Ontario
N9H 2K3
Canada

Dear Ms. Howitt: June 30, 2009

I am pleased to grant you permission to reproduce the following copyrighted and trademarked material in your forthcoming dissertation (June 30, 2009), *A Comparative Study of Leadership Behaviour Styles for Stress Reduction in Contemporary Educational Leaders: Considerations for Succession Planning in the 21st Century.*

1. ***Life Styles Inventory™* (LSI) terminology, style names and descriptions**. The following citation must be included in your manuscript where the LSI terminology, style names and descriptions are discussed or reproduced: "From *Life Styles Inventory™* by J.C. Lafferty, Human Synergistics International. Copyright 2009 by Human Synergistics. Adapted by permission."

2. ***Life Styles Inventory™ (LSI) circumplex***. The following citation must be included in your manuscript where the LSI circumplex is displayed: "The *Life Style Inventory* ™ Circumplex. Research and Development by J. Clayton Lafferty, PhD. Copyright 1973-2009 by Human Synergistics International. Used by permission."

3. **Level 1 *Descriptive Statistics and Reliabilities***: Permission is granted to reproduce the table "*Level 1* Descriptive Statistics and Reliabilities" in your manuscript as Table 9. Please include the following citation where the table is reproduced: "Human Synergistics International (1981) "Level 1: Life Styles Inventory – An Instrument for Assessing and Changing the Self-Concept of Organizational Members," Plymouth, MI: Author."

We look forward to receiving a copy of your dissertation upon publication.

Sincerely,

Cheryl A. Boglarsky, Ph.D.
Director of Research
Human Synergistics, Inc.

VITA AUCTORIS

NAME: Clara Howitt

PLACE OF BIRTH: Windsor

YEAR OF BIRTH: 1968

EDUCATION: Bachelor of Social Sciences Degree, 1989
University of Windsor

Bachelor of Education, 1992
York University

Master of Education, 1998
University of Windsor

PROFESSIONAL BACKGROUND:

- Clara is in her 16th year of working in the field of education.
- A total of 11 years has been as an educational leader serving in the roles of Vice Principal, Principal. Supervising Principal and Superintendent of Education
- The Superintendent portfolio responsibilities include professional learning for teaching staff and educational leaders.
- Clara has dedicated 15 years to reading and studying leadership theory and leadership development strategies.
- Clara remains dedicated to continuous learning and inquiry in the area of leadership development with the intent of designing high calibre support programs for aspiring and tenured leaders.