

Enhancing Academic Achievement for Students Living in Poverty Through Transformative Leadership, Instructional Practices and Professional Learning Communities

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Abstract

This study utilized the mixed methods research to explore the correlation between academic achievement and poverty. The collection and analysis of quantitative data on reading, writing and mathematics; demographics (born outside of Canada, primary home language, special needs learners) and school community characteristics (e.g. family income) facilitated the identification of high performing schools (performing above 60% at levels 3 and or 4 in EQAO [Education, Quality and Assessment Office] reading, writing and mathematics at either Grade 3 or 6) serving economically disadvantaged students. The stratified sampling technique allowed for the selection of a subgroup representative of the sample under study. The purposive strategy enabled the selection of the most outstanding successes related to academic achievement and poverty. The qualitative data was used to explore transformative leadership, instructional practices and professional learning communities (PLCs) as possibilities for changing the trajectory of underachievement to achievement. From the data collected, analyzed, and presented, the researcher made the following conclusion: Schools in the sample experienced a higher level of academic achievement even though their placement on the Learning Opportunity Index (LOI) ranking was considered high. The findings have implications for policy development, leadership training, teacher education, and professional development.

Keywords: transformative leadership, instructional practices, academic achievement

Introduction

There is a preponderance of evidence in research done in other Canadian jurisdictions (Burton et al., 2013; Coughlan, 2017; Volante et al., 2019); the United States (Ainsworth, 2002; Evans, 2004; Fagan, 2017); and Europe (Azzolini & Contini, 2016; Carey, 2008) that links poverty to academic achievement, cognitive gaps, school readiness, retention, and behaviour—among other variables. Although some of these research

studies use the variables “socioeconomic status” instead of poverty, the conclusions drawn from the analysis of the data portray remarkable similarities that render logical inference valid.

Ferguson et al. (2007) state, “Canadian research confirms poverty’s negative influence on student behaviour, achievement and retention in school” (p. 701). These writers also suggest that persistent socioeconomic disadvantage has

a negative impact on the life outcomes of many Canadian children. "The reality, in the Program for International Student Assessment (PISA) and in every other assessment of student outcome", Levin (2007) argues, "is that socioeconomic status remains the most powerful single influence on students' educational and other life outcomes. This is true in Finland and Canada as well as in the United States and everywhere else" (p. 75).

Studies that originate from the Vulnerability Index (Statistics Canada, 1990) created from the National Longitudinal Study of Children and Youth (NLSCY) have also repeatedly shown that socioeconomic factors have a significantly pervasive and persistent influence on academic achievement. Lethbridge and Phipps (2006) found that socioeconomic disadvantage and other risk factors associated with poverty (e.g. lower parental education and high family stress) have negative effects on cognitive development and academic achievement. Conversely, these studies claim that higher incomes were consistently associated with better outcomes for children. Isaacs and Magnuson (2011) further explore the cognitive domain using Peabody Picture Vocabulary Score (PPVT) and standard math and reading tests scores. Their findings concluded that low-income children (i.e. children living in poverty), living in poverty, have lower than average scores (-0.246 of a standard deviation), while affluent children have higher scores (+0.256 of a standard deviation) in reading.

There is substantive evidence that in many subject areas affluent students outperform low-income students. The National Assessment of Educational Progress (NAEP, 2005) reported that 13% of children living in poverty scored proficiency, compared to 40% of students who were from affluent backgrounds. Students living in poverty also scored 40% below the threshold of basic competency, while 21% of students not living in poverty have scores in a similar threshold. NEAP test results for grades 4, 8 and 12 students from economically disadvantaged backgrounds were lowest in math, reading, writing, and science. Studies by Ma and Klinger (2000), Willms (2007), and Entorf and Minoiu (2005) have also established links between

academic, cognitive, and behavioural outcomes and poverty. The links established by these and other studies are clear indications that educators cannot lose sight of the reality that many variables impact on achievement. Variables such as home environment, limited resources or lack of resources, and affordability of out-of-school programs and opportunities, contribute to gaining previous knowledge and closing achievement gaps. These opportunities can be safely linked to family income. However, despite the challenges faced by some of our students and their families, our schools are still viewed as the only hope of making a difference in their situation by improving learning outcomes.

International studies have also consistently shown similar associations between socioeconomic measures and academic outcomes. For example, the Progress in International Reading Literacy Study [PIRLS] 2011 assessed the comprehensive literacy skills for Grade 4 students in 35 countries (Mullis et al., 2012). The Program for International Student Assessment (PISA) assessed reading, math, and science scores of 15-year-old students in 43 countries (Organization for Economic Cooperation and Development [OECD], 2000). The reports indicate a significant relationship between socioeconomic status (SES) and educational measures in all countries. There is support for the conclusion inferred from the PIRLS and PISA data that income or SES has significant effects on educational attainment from elementary school through high school (OECD, 2000).

Several Canadian studies have documented links between low-income households and decreased school readiness. Thomas (2007) reported that children from lower income households score significantly lower on measures of vocabulary and communication skills; knowledge of numbers; copying and symbol use; ability to concentrate; and cooperative play with other children from higher income households. Willms (2007) concluded that children from lower SES households scored lower on a receptive vocabulary test than children from higher SES households. As a result of these findings, there is evidence that some

children begin formal schooling with gaps in their academic achievement. However, in spite of the “achievement gap”, schools can use effective instructional practices to interrupt the achievement disadvantage and create learning opportunities for these students to succeed and meet high expectations. The leadership of the school is crucial in creating equitable learning opportunities.

Equity means treating each learner differently based on learning needs shaped by various experiences which result in different maturity, achievement, self-esteem, motivation, and interest levels, among other variables. These differences should not be construed as weaknesses, but as strengths that can enhance the richness of the learning experience for teachers and students. Consequently, if there must be a change in the trajectory of poor academic achievement to high levels of achievement for students from lower socioeconomic backgrounds, schools and classrooms must portray evidence of conscious, intentional, and focused attempts to use instructional practices that create opportunities for these students to achieve learning outcomes based on equitable practices and not necessarily equal opportunities.

Transformative Leadership

The multiplicity and complexity that characterize the leadership role of schools has kept the topic as a focus in the literature and research for decades. The renewed call for accountability that expects each school to produce outstanding academic achievement for all students has resulted in researchers’ differentiating aspects of the leadership function, presenting various iterations and definitions of leadership and careful analyses of leadership application in school improvement and student achievement. In addition to the definition and application of the roles, there are also definitions of leadership styles and research studies focused on their impact on organizational performance. Leadership style highlights the characteristics and behaviours used by leaders to interact with their subordinates.

Transformative leadership focuses on systemic changes and interrogates questions of justice and democracy; it critiques inequitable practices and offers the promise of greater achievement and a better way of life (Shields, 2010). Through this leadership style, equity and justice can be enhanced. In the school context, academic achievement for marginalized learners can be improved, and consequently their life chances. Another strength of transformative leadership is the recognition that leadership exists at all levels of the school. Therefore, drawing on the leadership of teachers is a crucial and necessary element in any improvement effort and process. Transformative leadership views improvement as a process. This implies that student achievement is never complete, but a work in progress. One level of accomplishment triggers a higher level of success, greater effort, and resilience on the part of leaders and students alike. Both transformative leadership and equity are therefore mutually inclusive. As a result, transformative leadership should characterize the roles and behaviours of those who undertake responsibilities for enhanced student achievement. From the principals’ responses to the interview questions, it is deduced that all the schools in the sample focused on a social justice process.

Principal X said, “Leaders and teachers develop and use a social justice kit”. Principal D said, “Leaders and teachers focus on social justice issues in implementing curriculum and assessment practices”. The implication is that there is a recognition and use of transformative leadership connected to social justice aimed at higher academic achievement.

As schools continue to face community pressure to improve academic achievement, leaders must focus their attention and efforts on demonstrating the belief that all students can learn and achieve success. Stronge et al. (2008) argue that principals should concentrate on building a vision for their schools, sharing leadership with teachers and influencing schools to operate as learning communities. Also, Reason & Reason (2007) believe that as leaders, principals share their leadership with teachers to improve reflection and collaborative investigation

to improve teaching and learning. Subsequently, teacher leaders lead change from the classroom by asking questions related to improvement when they feel empowered to help find answers.

Professional Learning Communities

The Professional Learning Community (PLC) is an educational concept that has undergone many decades of research, practice, and consequently revision. However, it still remains a construct that varies in definition, understanding, and implementation. Despite the variability, there seems to be consensus among researchers and practitioners alike on its usefulness in transforming teaching and instructional practices and learning outcomes.

Hord (1997) indicated that PLCs engage teachers in a cycle of looking at what is happening in their school; determining if they can make it a better place by changing curriculum, instruction, or relationships between community members; and assessing the results — all with the goal of enhancing their effectiveness as professionals. A similar point of view is expressed by Stroll et al. (2006) when they state that PLCs suggest a group of people sharing and critically interrogating their practices in an ongoing, reflective, collaborative, inclusive, learning-oriented, and growth-promoting way. Fulton and Britton (2011) also identify the goal of PLCs as, “focusing teachers on improving their practice and learning together about how to increase student learning” (p. 7). Another group of contributors to the wealth of information present in the literature is DuFour et al. (2009) who define PLCs as educators committed to working collaboratively in an ongoing process of collective inquiry and action research to achieve better results for the students they serve. The similarities in the points of view indicate that a PLC is not an event, but a process involving learners using research to inform and modify curriculum, instruction, and assessment tools and strategies. Evident also is collaboration aimed at improvement in teaching practices and learning outcomes.

There are significant benefits to be accrued in a school environment where focused intentionality on leadership and collaboration is

applied to continuous improvement of learning for all students. Principals recognize that teachers have expertise, can determine their learning needs and that of their colleagues, and can contribute to student achievement. Teachers can provide leadership to school initiatives, including professional development.

In exploring theories of cognition, Putnam and Borko (2000) declare that thinking and reasoning are most effective when distributed across a system or group, rather than confined to an individual. This concept points to the importance of teachers sharing not only their knowledge and expertise on instruction, but also pertinent and relevant information about student learners, and strategizing to undertake shared responsibility for enhanced academic achievement. In this environment, individuals can reflect on their instructional practices, share perspectives, and collaborate on problem-solving, especially on strategies to support underachieving learners. This collaborative approach expands beyond individual classrooms and has greater propensity to meet the learning needs of the individual student as they journey from classroom to classroom, grade level to grade level, and from school to school. DuFour and Marzano (2011) say, “The focus of (PLCs) must shift from helping individuals become more effective in their isolated classrooms and schools, to creating a new collaborative culture based on interdependence, shared responsibility and mutual accountability” (p. 67). Rosenholtz (1991) also noted that teachers’ sense of optimism, hope, and commitment reside in workplace conditions that enable them to feel professionally empowered and fulfilled.

While a lot can be said for teacher benefits, at the core of a professional learning community is student-enhanced academic achievement. Marks and Louis (1999) analyzed data from 8 elementary schools, 8 middle schools, and 8 high schools to examine the relationship between the quality of professional development community and student achievement, and found moderate correlations between the quality of professional collaboration and classroom pedagogy. They concluded that achievement levels were

significantly higher, to the extent that the schools were strong professional communities. The moderate correlation established through their data analysis provides no indication of the frequency, focus, approach, or even application of the professional development community.

Vescio et al. (2008) articulate the positive effects of PLCs on teacher performance and student achievement:

Participation in learning communities' impacts teaching practice as teachers become more student-centred. In addition, teaching culture is improved because the learning communities increase collaboration, focus on student learning, teacher authority or empowerment, and continuous learning; when teachers participate in a learning community, students benefit as well, as indicated by improved achievement scores over time (p. 88).

Fullan (2010) says, "Essentially, capacity-building implies that people take the opportunity to do things differently, to learn new skills and to generate more effective practice" (p. 57). Sharrat and Fullan (2009) also purport that capacity-building must be systemic if it is going to make a performance difference for all students. They argue that capacity-building is a highly complex, dynamic, knowledge-building process intended to lead to increased student achievement in every school (p. 8). The evidence is clear that the core purpose of capacity-building is enhanced student achievement, and the approach involves teacher collaboration and support for each member of the team.

Description and Significance of Problem

Poverty is a challenging construct to explain with any sense of clarity, because of the frequent shifts in the many variables that have ramifications for its definition. This study uses the Statistics Canada (2011) definition, which considers families to be living in poverty when their income falls below 50% of the median household income. In October 2014, the Low-Income Measures for single parents with one child was \$28,185.00 after taxes.

According to the Toronto District School Board Urban Diversity Strategy: On Student Achievement (2008), "Many societal factors contribute to the marginalization of communities, families and students — factors such as poverty, racism, sexism, classism and so on" (p. 2). Poverty impacts students' learning and the curricular opportunities schools provide to improve academic achievement. Poverty sometimes has an impact on readiness for learning, gaps in learning, student class placement, and the rigor of the curriculum to which they are exposed. If students are streamed into low level program opportunities and experience ineffective instruction, the likely outcome will be underachievement.

Although many schools are serving a significant number of students from poor communities, some of these schools seem to perform above expectations. This motivates my desire to explore the reasons these schools do well despite the economic challenges their students face. It is my belief that student achievement is not determined by SES, but by the quality of learning accomplished through a synergy of leadership and PLCs that facilitates the development of effective instructional practice.

This study sought to examine the impact of poverty as described by elementary schools' ranking on the LOI and student academic achievement measured by the Education Quality Accountability Office (EQAO) results in reading, writing, and mathematics over 3 consecutive years. The study further tested whether leadership and PLCs contributed positively to enhancing academic achievement where evidence pointed to high academic achievement for students from poor communities.

Conceptual Framework

Sociological, psychological, environmental, and socio-economic factors shape the diversity of our student population. Students bring diverse characteristics to their learning, which influence the way learning takes place and the final outcome. A combination of all or any of these factors can have either a powerful positive or adverse impact on achievement. Not

only do these factors external to the classroom impact on learning, but also on certain internal classroom factors. This implies that relevant and rigorous curriculum delivered with differentiated instructional strategies must be informed by the demographic and community characteristics data that describe students' lived experiences. These experiences are crucial to understanding students' level of motivation, readiness to learn, and intensity of instruction (Bryk et al., 2009). To achieve the maximum effectiveness of instruction and enhanced academic achievement may require educators to constantly and consistently seek to develop their expertise through additional professional development.

In each classroom, therefore, teachers are faced with the opportunity to create a synergy between individuality and collectivity in the delivery of curriculum, differentiated instructional, and assessment practices aimed at providing equitable access and opportunity for every student to achieve academic success. Individuality speaks to the idea that each student is unique and has individual strengths and learning needs. These needs are probably different from those of their other classmates and form part of the complex learning environment. While this is true, individual students must learn and grow within a broader context. Consequently, the teacher may need to encourage cooperative or collective learning in order to enrich the experiences provided to all learners. In addition, students come from homes and communities with multiple experiences, cognitive abilities, language proficiencies, social and emotional well-being; and different exposure or lack thereof to learning enrichment opportunities. These sociological and psychological factors help shape their uniqueness, but are also indicators of their strengths and needs. Identifying this diversity and incorporating the existing enormous strength in the learning environment, should yield dividends for both teachers and students.

While these realities may present obstacles to academic achievement, they should not be viewed as defining learning outcomes. The learning opportunities that schools provide can make the difference between success and failure for students.

These demographic and economic changes have consequences for assessment and evaluation practices, pedagogy, curriculum, leadership, teacher preparedness, and continuous development. Therefore, school leaders and teachers must use many assessment tools and measures (diagnostic, formative, or summative) to identify students' learning needs, so that more informed decisions can be made about pedagogical practices. Since these factors influence learning outcomes for all learners, but more specifically students from economically disadvantaged backgrounds, it is imperative that a careful analysis of multiple data sources be undertaken to fully determine both the complexities of work to be done, and the multiplicity and diversity of the teaching/learning strategies to be employed. Therefore, in addition to assessment data, a good understanding of student demographics and environmental information (parental income; level of education; access to educational opportunities; neighbourhood challenges such as violence, discrimination, and even stereotypes and racism) should be pertinent in informing and shaping instructional practices. Comprehensive knowledge (which includes information collected from formal and informal assessment) may influence instruction and curriculum as well as learning outcomes. This knowledge will allow teachers to view students not as empty vessels that come to the learning environment to be filled with knowledge dispensed by the teacher on the stage, but as learners with strengths from previous knowledge that should be incorporated into the rich learning experiences to be created. It must be acknowledged that students from all backgrounds and socioeconomic status bring a wealth of knowledge to learning tasks. In light of these findings, this study engages Vygotsky's Zone of Proximal Development.

Vygotsky (1978) describes these factors as the role of social interaction in learning and development, the role of a more knowledgeable other in learning, and the significance of the Zone of Proximal Development in learning.

Vygotsky (1978) deduced from his research that social interaction played an important role in learning and cognitive development and that

learning is a social process originating with relationships with others before occurring with the individual. He subscribes to the idea of learning occurring in the Zone of Proximal Development (what the learner can do with or without help) and the role that a more knowledgeable other plays in the learning process. In a school context, the principal and teachers are the “more knowledgeable other”.

The concept of a more knowledgeable other for the purpose of this study is linked to leadership acquiring knowledge about the diverse student population and using this knowledge to inform instructional practices and collaborate on leadership practices when delivering to PLCs aimed at intentionally improving academic achievement for economically disadvantaged learners. Since sociological, psychological, and environmental factors shape our diverse student population and socialization impacts learning, the question is — What is the impact of having more knowledge on the achievement of students from poor communities? How can schools use this knowledge to enhance student learning? One should not view learners having knowledge as the panacea to producing equitable learning outcomes. However, being armed with accurate information on students’ learning needs should assist teachers in the determination of appropriate intervention strategies.

Objectives

The objectives of this study are:

1. To explore what leadership practices characterize high-performing schools serving elementary students from poor communities.
2. To discover the strategies implemented by schools in developing leadership and building instructional capacity to enhance academic achievement for economically disadvantaged students.
3. To investigate the instructional practices employed by high performing schools to improve academic achievement for elementary students living in poverty.

Methodology

In conducting this study, the researcher used the mixed method sequential explanatory design approach. Mixed methods research is defined as a procedure for collecting, analyzing, and integrating quantitative and qualitative data at some stage of the research process within a single study for the purpose of gaining a better understanding of the research problem (Tashakkori & Teddlie, 2003; Creswell, 2005). The rationale for “mixing” methods was that neither quantitative nor qualitative methods on their own could adequately capture the relationship between poverty and its impact on academic achievement. Consequently, a combination of the methods complemented each other, facilitated a more comprehensive analysis, and allowed the researcher to capitalize on the strengths of the two methods. This mixed methods strategy also allowed the researcher to collect and analyze first quantitative, and then qualitative data in two consecutive phases within one study. Education Quality Accountability Office (EQAO) data was collected for the 25 schools that were highest on the Learning Opportunity Index (LOI), and then 5 high achieving schools were selected from the sample. Both quantitative and qualitative data from teachers and principals were also collected and analyzed to determine possible relationships between academic achievement, leadership, and PLC’s.

The Stratified Purposive Sampling Strategy was used to select participating schools. The stratified technique allowed for the selection of a subgroup that was representative of the sample, while the purposive technique involved selecting samples at either end (bottom or top) of the distribution of the sample of interest. The purposive strategy allowed the researcher to select the most outstanding successes related to poverty and academic achievement; and facilitated the collection of valuable information, and the gleaning of greater insights into the study of the impact of poverty on academic achievement.

The mixed methods methodology allowed for the analysis of EQAO data to identify 5 schools with significantly higher academic achievement

in reading, writing, and mathematics. The EQAO data represented results achieved by schools in the most recent 3 consecutive years. This decision was made in order to observe consistent, sustainable performance and delineate such variables as cohort performance. From the demographic and community characteristics data collected, it was deduced that there were no significant differences between sample schools on median family income, family income below the Low Income Measure, families receiving social assistance, lone parent families, adults with a low level of education, or adults with a high level of education. Schools also portrayed close similarities on the demographic attributes. Therefore, the minor differences on some of the demographic and school community characteristics could not significantly skew the achievement outcomes of the sample schools.

Source and Data Collection

The teacher survey and principal interviews were used to explore leadership (principals and teachers championing high expectations for student learning and ensuring the high quality professional development, collaboration, and support needed to enhance or improve instructional practices). The internal consistency using Cronbach's Alpha was calculated for the teacher survey, which was developed specifically for this research. In addition, an interview protocol which consisted of 8 items was developed to explore leadership and instructional practices, where the quantitative data revealed differences in students' academic achievement between schools. Both instruments were peer-reviewed by colleagues, research department staff, principals, and teachers outside the sample group. The final instruments were modified based on feedback received.

All of the 129 teachers in the 5 high-performing schools were selected to participate in a survey, with items capturing leadership and PLCs. Fifty-three teachers returned completed surveys representing 41% of the population.

All five principals agreed to be interviewed and responded to 8 open-ended questions. The researcher visited all 5 schools and interviewed all

5 principals. The interviews lasted approximately 60 minutes, were audio-taped, and later fully transcribed by the researcher. The content analysis included reading the transcript, labelling relevant pieces, coding and creating categories or themes, labelling categories, and making connections to the variables under study. This approach also facilitated the exploration of principals' perception of factors that contributed to enhanced student academic achievement and the development of a new and in-depth understanding of these factors. The inductive approach used enabled the researcher to recommend lessons learned in order to support under-achieving schools. To assist with the analysis and interpretation of quantitative data, the researcher also collected demographic and community characteristics and EQAO data from all the sample schools. The collection and analysis of this data were aimed at learning more about students, their learning needs, and achievements.

Data Analysis

Pearson's Correlation Coefficient Statistical Procedure was applied to EQAO data to establish the relationship between the independent variable – poverty, and the dependent variable – academic achievement. Pearson's Correlation Coefficient Procedure was also used to determine correlations among leadership, PLCs (PLCs), and instructional practices. Descriptive Statistics (means and standard deviations) were used to analyze the teacher survey results. Charts categorizing the themes extrapolated from principals' responses were developed and used in the analysis of the data. A triangulation of the data was done to further explore and verify observations and patterns identified from the analysis of the quantitative data with findings from the qualitative data.

School Profiles Developed from Data

The elementary schools in the sample (D, G, H, N, and X) were located in inner-city communities of Toronto, Canada. Their placements on the Toronto District School Board's LOI¹ were from

¹ The LOI (Learning Opportunity Index) provides a score and ranking for schools according to external challenges; and is calculated from median income, the proportion of low-income families and families receiving Social Assistance, education levels of adults, and the proportion of lone parent families.

1-25—considered high (facing significant socio-economic challenges). Each of the schools portrayed demographic, sociological, psychological, and socio-economic diversity. Each school achieved varying degrees of student academic achievement on EQAO², CAT4³, and in-school assessments. Their achievements have shown consistency over the 3 consecutive years (2013–2016) for which these data have been collected and disaggregated. Highlighted below are specific demographic, community characteristics and achievement results of Schools D, G, H, N, and X. These schools portray varying degrees of challenges, yet demonstrate significant student achievement.

School D

School D's student population was comprised of 19% Special Needs Learners: 10% of the students were born outside of Canada and 48% of the students spoke English as their primary home language. The median family income was CAN\$39,013.00; 53% of the families had family income below the Income Measure; 39% of the families received Social Assistance; 54% had lone parent families; 33% had adults with low education (educational attainment-below high school diploma graduation); and only 9% of the adults had university degrees or above. The school's results in EQAO were 76% in reading, 83% in writing, and 69% in mathematics.

School G

School G's population comprised of 19% Special Needs Learners: 18% of the students were born outside Canada, and 47% of the students spoke English as their primary home language. The median family income was \$27,000; 54% of the families had income below the Low Income Measures; 39% of the families received Social Assistance; 68% had lone parent families; 35% had low level education; while 11% had university degrees or above. This school attained 90% in

reading, 85% in writing, and 80% in mathematics in EQAO test results.

School H

Eighteen percent of the school's population were Special Needs Learners: 20% were born outside Canada, and 60% of the students spoke English as their primary home language. The median family income was approximately \$35,000.00: 48% of the families had income below the Low Income Measures; 34% of the families received Social Assistance; 56% had lone parent families; 26% had adults with low education; and 13% of the adults had university degrees or above. School H achieved 80% in reading, 89% in writing, and 61% in mathematics in EQAO test results.

School N

The student population consisted of 9% Special Needs Learners: 10% of students were born outside of Canada and 43% spoke English as their primary home language. The median family income was approximately \$37,000.00: 49% of the families had income below the Low Income Measures; 36% of the families received Social Assistance; 56% had lone parent families; 28% of the families had adults with low education (without a high school diploma); and only 17% of the adults had university degrees or above. The school also achieved 93% in reading, writing, and mathematics in EQAO test results.

School X

School X had a student population of 16% Special Needs Learners: 10% of the students were born outside of Canada and 47% of the students spoke English as their primary home language. The median family income was \$39,908.00: 50% of the families had income below the Low Income Measure; 37% received Social Assistance; 49% had lone parent families; 39% of the families had low adult education; 9% had adults with tertiary level education or above. The school achieved 66% in reading, 73% in writing, and 53% in mathematics in EQAO test results.

² EQAO (Education, Quality and Assessment Office) standardized tests in reading, writing, and mathematics.

³ CAT4 (Cognitive Ability Test) is a diagnostic assessment that is designed to help students and their teachers understand how they learn, what their academic potential may be, and how students think — which is known to make a difference to learning. Tasks involved non-verbal, verbal, special, and quantitative reasoning.

These school profiles highlight the specificity in demographic, school community characteristics, and achievement results. These schools are similar in demographics, school community characteristics (except the percentage of lone parent families), but vary slightly in their academic results. It should be pointed out that similarity does not imply homogeneity, but rather heterogeneity. There is no monolithic group. This connotes the complexity of the issues facing each school and the possible numerous and varied strategies that must be creatively implemented to effect enhanced academic achievement. Therefore, there must be a number of diverse strategies employed to support diversity among the learners in order to achieve enhanced results. All of the schools in the sample (D, G, H, N, and X) performed above expectations (at or above provincial standard). Schools N, H, and G demonstrated a higher level of academic achievement in demographic and school community characteristics despite the similarity to Schools D and X.

However, in spite of the similarities in the challenges faced, these schools are still diverse. They also experience different levels of academic achievement although they all can be characterized as successful. The question then is: What can we learn from the strategies employed by these schools to inform policies and practices in underachieving schools to transform their achievement to levels of excellence?

This research is premised on the idea that SES or poverty is not the final determinant of the educational outcome for students from economically disadvantaged backgrounds. Leadership developed through PLCs may be instrumental in schools' attempts to turn negative learning outcomes into positive outcomes and experiences. This could be the necessary change needed to improve the economic chances for some students and their families. Some schools serving students from poor communities have employed strategies that seem to be transformative and successful. Investigating these strategies can be informative and instructive. Lessons learned from this exploration could assist educators charged

with the responsibilities of teaching students from poor backgrounds in their attempts to produce higher academic achievement outcomes.

Ethical Review Process

Prior to undertaking this research project, applications were made to the York University Research Ethics Review and the Toronto District School Board Ethics Review Committees for approval. The application contained a description and rationale for the project; identification and description of participants and how they would be recruited; expectations of, risks, and benefits to participants; securing informed consent and anonymity; and the confidentiality and security of data collected.

Presentation and Discussion of Findings

School Profiles Developed from Principals' Perceptions

School D

Students undertake many responsibilities at home and respond well to their responsibilities in the classrooms and school. Teachers recognize students' differences and use different approaches to meet their learning needs. Teachers use Guided Reading, STAR Reading Strategy and running records to develop literacy skills. Math clubs help us enhance numeracy skills. Monthly assessment data is collected and used to inform our discussions on achievement and learning. At this school, we use Culturally Responsive and Relevant Pedagogy (CRRP), focus on social justice issues, and integrate special needs learners into the regular classes. Special Needs Learners are also provided with additional assistance. (Participant's response)

Teachers in School D used CRRP, differentiated instruction (DI), accommodations for special needs learners, good assessment data, and the incorporation of social justice issues in the curriculum as strategies to improve academic

achievement for economically disadvantaged students. Other strategies employed were guided reading and additional opportunities offered through a math club. The principal identified program initiatives such as Early Literacy, English as a Second Language classes for newcomers and students whose first language is not English as factors that influenced the school's success. According to the principal, accommodations were made to support special needs learners with the aim of integrating them quickly into regular classes. All teachers participated in professional learning communities, sometimes in grade level teams and at other times as a school. Instructional Rounds is a professional development strategy practiced at this school. Supply teacher coverage, common prep time, and use of learning coaches facilitated teachers' meeting opportunities.

School G

In response to the interview questions, the principal said:

Eighty percent of the students at this school are from the lower SES background, with limited support systems. Teachers understand the stressors that impact on the students and their families. We use our staff meetings to facilitate conversations on meeting students' needs. Our PLCs also focus on developing teaching strategies. We use data from many sources to help us understand how to move under-achieving students upward. We use differentiated instruction, CRRP, excursions, and different student engagement strategies to enhance learning. We provide support for students with special needs and re-integrate them into regular classes as soon as their skills improve. (Participant's response)

The teachers' use of different instructional strategies such as CRRP, DI, and the use of rich questions to encourage higher-order thinking skills were strategies perceived by the principal of School G as contributing factors to the level of student success the school experienced. According to the principal, the staff study on growth mindset, barriers to learning, and the impact of stereotypes on assessment, instruction, and the learning environment created in each

classroom, enhanced staff understanding of the learning needs of students living in poverty. Professional Learning Community (PLC) sessions were implemented to help staff develop expertise. The additional model school and student success funds received by the school contributed to providing additional student opportunities and staff development. Student opportunities included excursions, guest scientists in the classrooms, and additional technological support and equipment. The school pursued a practice of integrating special needs learners into the regular classrooms and used Special Needs Assistants and Child and Youth Workers to support them. The principal believed that her training in diversity did have an impact on her leadership, instructional stance, values, beliefs, and practices.

An analysis of the school profiles developed from the principals' responses revealed similarities and differences.

School H

The principal of School H observed:

Our school is the 8th on the Learning Opportunity Index (LOI). In this school, students speak 33 different languages. A significant number of our students are special needs learners. They enjoy learning. In our classrooms you can observe equity in action. We use assessment data as, for, and of learning. The use of data helps us know which students are not achieving in spite of our best efforts. We use data to inform our instructional strategies. Teachers implement Differentiated instruction, use rich questions and 3-part math lessons. In all lessons, teachers try to provide multiple entry points for students. We implement weekly PLCs where we learn together. Lead teachers work with administrators to plan PLCs. I believe in shared leadership and we practise it. Teachers always share experiences and strategies. (Participant's response)

The principal of School H attributed the level of student success to teacher efficacy and collaboration. As characterized by shared immigrant experience, love for students, high morale, and a cohesive working relationship

supported by the administrative team. The school's instructional capacity-building strategies included weekly professional learning community (PLC) sessions in which lead teachers worked with administration to plan and implement staff learning opportunities. These opportunities were supported by the school's timetable model, funds to facilitate teacher release, and the encouragement and support from union representatives. Assessment data were used to establish a sense of urgency among staff and focused instructional practices on the learning needs of all students, especially on the needs of those still under-achieving despite teachers' best efforts. The evidence gathered from data analyses also informed professional development needs. Staff explored research on growth mindset; high expectations for student learning; delivered rich lessons with multiple entry points and DI. There was strong feeling expressed by the principal on the stability of the administrative team; leadership by example; teacher retention; the concept of the staff as a family or team; and the administrator's flexibility in considering teachers' expertise in determining their class assignments. Inner-city model school funding and teacher coach support were lauded as vehicles to address inequalities.

School N

The principal of School N highlighted the following:

Our school is ranked number one on the LOI. The student population is very diverse, with 50% of African heritage. The students have rich histories and strong oral language skills. We connect students' histories and experiences to the curriculum. They are open to learning and want to succeed. Our teachers plan instruction using a social justice lens. We study assessment data and the teachers are engaged in collaborative inquiry. Teachers work together to develop common assessment tools. Critical thinking is encouraged in each lesson across all grade levels. We use instructional strategies such as CRRP, D.I. and technology as additional resources for our students. We use excursions to encourage learning outside the classrooms. Our students with Individual Education Plans (IEPs) get special assistance.

The principal of School N declared that the level of student success experienced by the school could be attributed to leadership that was well rounded and included collaboration with teachers and instructional or teaching coaches. The principal noted that this approach is complex, but a necessary team strategy. Staff teaching assignment, such as assigning males to teach kindergarten classes, was perceived as important to effective classroom management and the provision of male role models.

The school administrator recognized that their teaching staff came to the task with different levels of expertise that represented strengths, but also with gaps in knowledge about students' diverse backgrounds and how to connect their histories and experiences to the curriculum and teaching strategies. The study of many sources of data was undertaken to close the knowledge gap and inform instructional practices. Emphasis was placed on researching theories and practices such as high expectations for all students; a focus on social justice issues in curricular offerings; and CRRP as a possible instructional practice. The school undertook what was perceived as a shared leadership approach and embarked on collaborative inquiry as part of their "Teacher Action Research" aimed at professional reflection and instructional capacity-building. Staff used instruction as a vehicle to address inequalities such as excursion; use of technology⁴ to differentiate instruction; and a social justice⁵ approach to student engagement and combating negative stereotypes.

School X

The principal of School X noted that:

Our students are from very diverse backgrounds — Blacks, Vietnamese, Spanish, and Tamil. They all have strengths in speaking English and strong oral language skills. Students and their families view this school as a

⁴ Differentiated assignments posted on the computer for individual or small group completion. Individual or group performs tasks with peer or teacher assistance as necessary. Students change task levels as mastery is achieved. Completed tasks are recorded, shared and feedback provided. A similar approach used for mathematical problem solving, research and writing process (editing, peer and teacher feedback, publishing).

⁵ Social justice approach recognizes learning gaps based on inequity and create opportunities to achieve equitable learning outcomes.

positive space. From our climate survey and assessment data, we identify gaps in student learning. We use PLCs to address community income levels, growth mindsets, and instructional strategies; as well as to share success stories and celebrate success. The teachers participate in co-planning and co-teaching. With the use of technology, teachers incorporate Google Docs in learning activities. Differentiated instruction is one of the instructional strategies used by teachers to meet different learning needs.

Teachers in School X reported the use of CRRP; the delivery of interdisciplinary thematic units based on social justice issues; accommodations for Special Needs Learners; and the use of technology to differentiate instruction, as strategies to enhance academic achievement for students from poor communities. Through PLCs, they have shared, analyzed assessment and community characteristic data, and identified students' learning needs. This information was used to determine instruction. Teachers shared research on growth mindset; high expectations; use of technology in differentiating instruction; social justice issues and their impact on curriculum and teaching-learning strategies; co-planning; and celebration of successes. The principal also highlighted the school's reading program, which incorporated literature written by authors from diverse backgrounds. All students received a book-bag which was taken home weekly with a fresh supply of books to be read and shared as a family.

Question 1: Are there leadership practices that characterize high performing schools serving elementary students from poor communities? What are they?

From the data it was deduced that teachers in the sample schools believed that leadership is associated with academic achievement (median score of 1.5). From the principals' interview responses, 2 of the variables related to student success were: administrative support of staff and leadership. The principals perceived that strategies aimed at engaging staff in developing an understanding of the attributes and functions necessary to help students living in poverty to

succeed included leadership: principal and teacher team collaboration. Principals intimated that stability in administration, leadership by example, principals' training in diversity, and principals in general, are among the factors that impact student academic achievement. There was also a correlation established between leadership and instruction, (0.914 at 0.01 significant level - 2-tailed).

Over 51% of the teachers in the sample considered leadership to be a factor associated with student academic achievement. The teachers identified strategies (such as working in collaboration with staff to set high expectations for student achievement and monitoring progress), that created the environment for teachers to willingly seek and develop their expertise and value, and empower others to authentically share responsibilities.

Conclusion

The evidence suggests that when leadership is supportive, collaborative and empowering instructional capacity-building is enhanced and high student academic achievement may be evident. School leadership is instrumental in developing, implementing, sustaining, and enhancing the quality of instructional practice (Bass & Faircloth, 2013; Hopkins, 2001; Reynolds et al., 2001). Blasé and Blasé (2000) label this construct as, "instructional supervision" and purport that it supports improved teaching, positive interaction, and trusting relationships. The collaborative and collegial relationships that exist between principals and teachers enhance the quality of instruction through the recognition of teacher leadership by creating and providing professional development opportunities in an atmosphere of trust. As a result, there is a recognition that the paradigm has shifted from the principal as master teacher and keeper of knowledge, to an approach that embraces shared practice and greater staff collaboration. Leadership practices that offer timely and tiered opportunities for staff collaboration in their quest to enhance student academic achievement are wise investments in improving learning and life chances.

In our current economic climate, therefore, creative ways must be explored, researched, and implemented to develop staff expertise so that all students can maximize their learning potential. Identifying some signposts towards excellence in education, Hattie (2012) states, "Teachers are among the most powerful influences in learning" (p. 18). Transformative leadership in this context could include a collaborative process for implementing equitable practices to achieve common goals.

Professional development opportunities allow teachers to hone their skills. However, in classrooms where these practices are limited, or not evident, professional development can also assist in filling the void and building collaborative efficacy. Even in classrooms where the practices are exemplary, professional development can be instrumental in shared capacity-building and the further pursuit of excellence (Hargreaves & Frank, 2006; Harris & Chapman, 2001; Leithwood et al., 2002; Murphy, 2002; Reeves, 2006).

Many authors contribute to the discourse on PLCs: (Bass & Faircloth, 2013; Caine, G. & Caine, R., 2010; Darling-Hammond, 2007; Hall & Simeral, 2008; Katz et al., 2009). Darling-Hammond (2007) argues that professional development sustained over time, focused on important content that embeds knowledge of community strengths, will positively affect ongoing improvement in teachers' practices. Danielson (2006) says, "Teacher leaders develop a collaborative relationship with colleagues; they inspire others to join them on a journey without a specific destination." (p. 13).

Contributing to the discourse, Fullan (2001) says, "The litmus test of all leadership is whether it mobilizes people's commitment to putting their energy into actions designed to improve things. It is individual commitment, but above all it is collective mobilization" (p. 9). While one is cognizant of the challenges facing each school, one must remain optimistic that schools can make a difference in influencing academic achievement for all learners.

There is a recognition that some variables impacting on learning are outside the remit

of schools. However, leadership is a variable over which the schools have direct control and influence. While schools do not directly influence poverty, they have direct control of curriculum; instruction; teacher and student interactions; and the interactions among teachers, students, and curriculum. It is the synergy of the interrelated parts that maximizes learning outcome; in this case, leadership, professional collaboration, and growth do impact student achievement.

Question 2: Are there strategies implemented by schools to develop leadership and instructional capacity to enhance academic achievement for economically disadvantaged students? What are they?

The data shows that leadership, as associated with academic achievement, at a median value of 1.11, and reveals that with a median of 1.5, professional development was associated with academic achievement. Fifty-seven percent of the teachers perceived that professional development was associated with academic achievement, while 55% believed that involving PLCs had an impact on academic achievement. With a median of 1.2, teachers perceived that PLCs were associated with academic achievement. The data also shows an overall correlation of instructional practices, leadership, professional development, and PLCs, with a variance of 0.972.

From the data it is deduced that PLCs were contributing factors to schools' success, and to the strategies used to engage staff in understanding the attributes and functions necessary to help students living in poverty succeed. Leadership through collaborative inquiry was also among the strategies employed by schools to develop instructional practices. The data extrapolated from the teacher questionnaire reveals professional development opportunities, PLCs, teachable moments, and professional dialogues as capacity-building strategies. Principals identified two factors that contributed to school success as principals' training in diversity and PLCs using coaching support.

Conclusion

There was a perception from teacher respondents that professional development and PLCs were associated with academic achievement. Principal and teacher team collaboration and PLCs were strategies used to develop teacher instructional practices and enhance leadership development and collaboration. Strong leadership and collaborative inquiry were also strategies prevalent in the schools. From the evidence collected, it was deduced that there was diversity in approaches, strategies, foci, frequencies, and even outcomes of professional development opportunities and PLCs. However, teachers and principals felt that the success of the schools in terms of academic achievement was significantly linked to the implementation of these two strategies. One principal indicated that strong leadership was demonstrated in well-roundedness or a willingness to be vulnerable in expressing knowledge gaps, as well as learning together with staff members. This, he said, created the opportunity for staff to emulate preferred examples, build trust, and pursue authentic learning without fear of evaluation.

Principal H said, "At our PLCs we use data to do assessment as, for, and of learning, to decide which students are not successful in spite of our best efforts."

Principal G said, "Data guides our instructional practices and next steps."

Principal D said, "We use monthly assessment data and observation of instructional strategies through Walk Throughs to inform opportunities to enhance student learning."

Principal H said, "Our teachers share knowledge of student needs and teaching expertise. Teachers are not afraid to ask for help with challenges."

DuFour and Eaker (1998) believe that in the professional learning community schools, professional development is designed to support and build upon the collective capacity of teachers to work effectively as members of a collaborative team and share knowledge and understanding of curriculum, instruction, and assessment.

In describing teachers' impact on students' academic achievement, principals in this study, commented, "Teachers have high morale and give service to students beyond the call of duty. Teachers provide extra academic and social support in after-school programs. Teachers' professional relationship with students and each other, as well as their collaboration in sharing knowledge, expertise, and resources are significant contributors to student success. Teachers possess growth mindsets and have high expectations for all the students."

It seems that with the belief that all students can learn at a high level, and the willingness to provide extra access to opportunities and collaboration, teachers intensified their efforts and achieved significant learning outcomes for their students. Danielson (2006) said, "Teacher leaders develop a collaborative relationship with colleagues; they inspire others to join them on a journey without a specific destination. They recognize an opportunity or a problem, and they convince others to join in addressing it" (p. 13). From the data, there is a clear indication that teacher participation in PLCs is linked to student academic achievement.

Question 3: Are there instructional practices employed by high performing schools to improve academic achievement for elementary students living in poverty? What are they?

The principals identified the following strategies: high teacher expectations; use of rich questions; Culturally Relevant and Responsive Pedagogy (CRRP); use of good assessment data; DI; accommodations for special needs learners; and the use of technology.

They further indicated that the use of students' and families' prior experiences; in-class technological support; and the use of data and planning instruction through a social justice lens were strategies that positively impacted on academic achievement. Principals' responses identified the strategies employed in developing instructional practice capacity in three areas: teachers — learning together, co-planning, co-

teaching and use of data to monitor progress; leadership—shared leadership; professional development — use of model school lead teachers and coaches, collaborative inquiry, theory of action, and accountable talk.

Principals' responses about factors that contributed to schools' successful academic achievement included: instruction—use of technology as part of instructional strategies; leadership—stability in administration, leadership by example, principals' training in diversity and succession planning, and teacher retention and leadership. From the teachers' questionnaire response data, it was deduced that teachers perceived instructional practices to be one of the variables significantly correlated with student academic achievement.

Conclusion

From the data, it appears that when principals and teachers collaborate and implement a variety of research-based instructional strategies that meet diverse learning needs, there is great propensity for high academic achievement. Despite the challenges, schools have been exploring strategies for improvement. Some of the studies that offer insights on relevant improvement efforts focus on leadership and PLCs as a strategy to build teaching-learning capacity. Teachers in this study perceived leadership (variance 0.914) and PLCs (variance 0.910) to be significantly correlated to academic achievement. The principals in the sample attributed the high level of student success at their schools to leadership, PLCs, and instructional practices. In reporting on the meta-analyses on the relation of quality of teaching to learning, John Hattie (2009) identified the highest correlations as: teachers challenging students (encouraging them to think through and solve problems, either by themselves or together as a group, $r=0.64$); high expectations (encouraging students to place a high value on mathematics, $r=0.53$); monitoring and evaluation (getting students to think about the nature and quality of their work, $r=0.46$); encouraging them to test mathematical ideas and discover mathematical principles, $r=0.40$),

and teaching the language, love, and details of mathematics (helping students construct an understanding of the language and processes of mathematics, $r=0.47$); developing their ability to think and reason from a mathematical point of view, $r=0.41$. (p. 115).

The essence of these findings implies that high quality instructional strategies can positively impact on academic achievement for students living in poverty.

According to Haberman (1991), labels identify some children as being less worthy of high-quality experiences. The result of such systemic labelling is called "pedagogy of poverty" (pp. 290–294). This pedagogy focuses on an instructional approach that mirrors giving instruction, asking questions, giving directions, marking assignments, giving tests, reviewing tests, assigning homework, reviewing homework, settling disputes, punishing non-compliance, marking papers, and giving grades (p. 291).

The contention is not with the activities themselves, but with the implementation of these activities to the exclusion of other best practices and students' most apparent learning needs. Dougherty and Barth (1997) noted, "Poor and minority children are systematically bludgeoned into low-level academic performance with a steady dose of low-level, boring, if not downright silly assignments and curricular" (pp. 40–44). They further purport that in such settings, children are not taught to think critically and therefore are unable to use what they already know to help them understand their world. Effective teaching must capitalize on the strengths or social capital students bring to learning tasks and use these strengths to influence new and profound learning outcomes. Students' learning should be the apparent driving factor that informs teachers' pedagogy.

Conversely, the "pedagogy of plenty" portrays high quality teaching, including sound teaching practices that provide students with many opportunities for academic success. This pedagogical approach reflects the following elements of good teaching:

- Authentic tasks within a meaning-driven curriculum;

- Tasks that offer students real purposes for reading;
- Writing and doing mathematics and real audiences for their work;
- Literacy-rich learning environments that offer a wide variety of high-quality resources;
- Helping to make connections between what students learn in school and their daily experiences in their homes, community, and culture. Exposing students to resources that offer experiential, problem-based, active learning opportunities;
- Engaging students in a variety of social configurations in cooperative and collaborative learning groups, working on issues and problems of deep concerns to them;
- Exposing students to inquiry-based approaches to instruction that make meaning, not just getting right answers (this is the essence of instruction);
- Engaging students in substantive dialogue, discussion, debate, and conversation to help them learn, understand, make informed judgments about, and apply the substance of, a content area; and,
- Allowing students to have their home and community culture, language, and experience positively acknowledged and incorporated into their learning as they explore cognitive and meta-cognitive problems within the context of purposeful activities (Cole, 2008, p. 49-50).

Principal H said, "Our teachers use rich questions to provide multiple entry points for students to achieve some success, but they also acquire new learning and develop higher order thinking skills."

Principal X said, "Differentiated instruction and CRRP are strategies used by our teachers. Rich questions are incorporated in each lesson."

From the principals' responses to the interview questions, it was deduced that schools included rigorous curriculum reflecting students' diverse culture and experiences. The use of "rich questions" to develop higher order thinking, enquiry, and problem-solving skills formed part

of every school's instructional practice. The social justice approach to curricular planning and implementation was also used to help students make informed opinions and decisions. The differentiated instructional strategy created opportunities for all students to participate in rich tasks rather than chiefly lower-level tasks portrayed by the pedagogy of poverty. All students, regardless of their SES, need rich learning opportunities that capitalize on their strengths and enhance their academic achievement.

These well researched, documented, and practiced elements identified by Cole (2008) should be present in all learning environments. The intent, however, is not to portray the teacher as "super-person" with knowledge and effective strategies to individually transform all learners. The extent to which each element is operative in each classroom may vary significantly. Some elements may even be absent. However, educators are always reflecting on their practices and pursuing opportunities for growth. Educational practitioners also recognize that no one individual has all the strategies to address the very divergent needs of all our learners, and that one size does not fit all. Pertinent to this discourse also is the fact that there are diverse learning needs among students from financially disadvantaged communities. Knowledge of this diversity is crucial to the effective delivery of instruction to meet the needs of these students.

Data collected from the teachers' questionnaire and analyzed using Pearson Product Moment Correlation shows that at a 0.01 level of significance, instruction is correlated to leadership (variance 0.914), professional development (variance 0.907), and PLCs (variance 0.910). There is also an overall correlation of the variables under study at variance 0.963. From the data, it can be deduced that leadership is significantly correlated to professional development (variance 0.885) and PLCs (variance 0.908). An overall correlation with leadership and the other variables is variance 0.972. It can also be extrapolated that leadership, instructional practices, professional development opportunities, and PLCs seem to be interrelated and have direct impact on student academic achievement. Another deduction that may be made is that the

level of achievement at each school is dependent on the effectiveness on each of the variables or on a combination of variables. Conversely, schools demonstrating ineffectiveness on one or more variables may experience lower academic achievement.

Conclusion

The evidence points to the fact that student academic achievement is associated with instructional practices. Schools used strategies such as CRRP, DI, rich questions to encourage higher order thinking, technology, assessment data, connection of the curriculum to social justice, and the incorporation of students' cultures, histories, and lived experiences into the curriculum. This implies that economically disadvantaged students come to learning tasks and environments with diverse experiences, learning needs, and learning styles — similar to all other students. They require and deserve to experience different strategies to enhance their academic achievement.

This finding is synonymous with the belief held by Cole (2008) that good instruction is good instruction, regardless of students' racial, ethnic, or socioeconomic backgrounds. Cole (2008) further states that teaching that is engaging, relevant, multicultural, and appealing to a variety of modalities and learning styles works well with all students.

In referring to the constructivist approach to teaching and learning, Cole (2008) says:

These practices include activating students' prior knowledge; providing a variety of active learning resources; using a variety of hands-on, minds-on activities; engaging youngsters in a variety of cooperative learning experiences; allowing students to formulate questions and discover concepts that can guide future learning; asking students to think aloud while approaching a task; modeling powerful thinking strategies; and providing students with opportunities to apply new learning within the context of real-life activities (pp. 30–31).

There is an indication here that there is no panacea for achievement. However, the knowledge and use of many and varied resources

and instructional strategies that include assessing and incorporating students' strengths seem to make a difference in learning outcomes. These facets of good pedagogical practice acknowledge that each learner brings strengths to the learning tasks and with a variety of resources and skillfully applied teaching strategies and learning opportunities, academic achievement for the most vulnerable learners, students from poor communities can supercede students from economically advantaged backgrounds.

Summary of Conclusions

From the data collected and analyzed, the researcher makes the following conclusions:

Schools in this sample experienced a higher level of academic achievement even though their placement on the LOI ranking was considered high. Some of these schools even outperformed those schools ranked low on the LOI in both their absolute and relative performance measures.

These schools have a significantly high population of students from economically disadvantaged, single parent households, and families low in educational attainment and yet their academic achievement was high.

When leadership is perceived to be supportive, collaborative, and shared, instructional capacity is enhanced and high academic achievement is evident. A focus on the transformative leadership style is imperative. This practice should be more explicitly included in teacher preparation in faculties of education, leadership qualification programs (Principals' Qualification Program (PQP), Supervisory Officers' Qualification Program (SOQP), and professional development opportunities under the Ontario Leadership Framework (OLF).

PLCs contribute to developing leadership and instructional capacities among principals and teachers. The quality of leadership and instructional practices developed and sustained through PLCs positively impact student academic achievement. In addition, the greater the number of variables (leadership, PLCs) on which schools are perceived high, the greater the probability that their academic achievement

will be high (i.e. schools performing above 60% at levels 3 and or 4 in EQAO reading, writing and mathematics at either grade 3 or 6).

When principals and teachers collaborate and implement a variety of research-based instructional strategies that meet diverse learning needs, there is a greater possibility that academic achievement will be high.

High academic achievement is dependent on a synergy of school factors (leadership, PLCs, and the instructional practices developed and implemented through professional development.

Recommendations

Shared and collaborative leadership should be allowed to permeate every school environment and intentional focus, effort, and resources should be invested in encouraging and developing teacher leadership. Transformative leadership should characterize all school environments and inform all leadership development opportunities and PLCs.

Intentional, purposeful, data driven, structured, teacher-led PLCs should be utilized as a vehicle to increase effectiveness in leadership and instruction. A variety of high effective or research-based instructional strategies should be implemented in every school and classroom.

This mixed method study focused on five high performing schools serving students living in poverty. Further studies of a similar nature including a larger sample, with possibly other variables and in other school boards should be undertaken. Another inquiry on schools serving economically advantaged students, but under-performing may shed additional light on factors that impact on academic achievement. The findings from any such inquiry may help to further improve schools' effectiveness in marking high levels of achievement for all students.

Achieving equitable academic achievement outcomes for a very diverse group of learners is not an insurmountable task. There are no easy and quick answers. The complexities of the challenges, multiplicity of factors that impact learning, and societal demand placed on educators to achieve academic excellence for all

learners require constant exploration of different strategies to meet the high expectations of students and their families. Knowledge gleaned from research studies and intentional application and review of any recommendations from these sources should be pertinent to the achievement enhancement journey. The conclusion deduced from the data collected and analyzed in this research project is that poverty does not have the determining verdict on the academic achievement of students from economically disadvantaged backgrounds. Rather, schools, through transformative leadership and PLCs can make a difference in instructional practices.

There are many complex and varied factors that impact achievement. Consequently, each school's success will be dependent on the differentiation of the opportunities provided. All opportunities should have students at the centre. Principals and teachers should continuously learn and grow. The hope is that the findings from this research will add insights and support the efforts being undertaken to achieve successful learning outcomes for all, but more specifically, for students from economically disadvantaged backgrounds. It is the hope that a combination of the strategies reviewed will benefit all learners and that practitioners will conduct additional research using different samples in different situations — thereby adding to the wealth of information needed to support diverse learners.

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References

Ainsworth, J. (2002). Why does it take a village? The mediation of neighbourhood

- effects on educational achievement. *Social Forces*, 81(1), 117–152. <https://doi.org/10.1353/sof.2002.0038>
- Azzolini, D., & Contini, D. (2016). Performance and decisions: Immigrant-native gaps in educational transitions in Italy. *Journal of Applied Statistics*, 43(1), 98–114. <https://doi.org/10.1080/02664763.2015.1036845>
- Bass, L., & Faircloth, S. C. (2013). *Building bridges from high poverty communities to schools to productive citizenship: A holistic approach to addressing poverty through exceptional leadership*. Peter Lang.
- Blasé, J., & Blasé, J. (2000). Effective instructional leadership: Teachers' perspectives on how principals promote teaching and learning in schools. *Journal of Educational Administration*, 38(2), 130–141.
- Bryk, A. S., Sebring, P. B., Allensworth, E., Easton, J. Q., & Luppescu, S. (2009). *Organizing schools for improvement: Lessons from Chicago*. University of Chicago Press. <https://doi.org/10.7208/chicago/9780226078014.001.0001>
- Burton, P., Phipps, S., & Zhang, L. (2013). From parent to child: Emerging inequality in outcomes for children in Canada and the U.S. *Child Indicators Research*, 6, 363–400. <https://doi.org/10.1007/s12187-012-9175-1>
- Caine, G., & Caine, R. N. (2010). *Strengthening and enriching your professional learning community: The art of learning together*. ASCD.
- Carey, D. (2008). *Improving educational outcomes in Germany, France and Paris*. OECD Publishing.
- Cole, R. (2008). *Educating everybody's children: Diverse teaching strategies for diverse learners*. Revised & expanded, (2nd ed.). ASCD.
- Coughlan, S. (2017, August 2). How Canada become an education superpower. *BBC News*. <https://www.bbc.com/news/business-40708421>
- Danielson, C. (2006). *Teacher leadership*. ASCD.
- Darling-Hammond, L. (2007). Excellent teachers deserve excellent leaders. In *Education leadership: A bridge to school reform* (p. 17). Report of the Wallace Foundation National Conference, New York City.
- Dougherty, E., & Barth, P. (1997, April 2). How to close the achievement gap. *Education Week*. <https://www.edweek.org/teaching-learning/opinion-how-to-close-the-achievement-gap/1997/04>
- DuFour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Solution Tree Press.
- DuFour, R., DuFour, R., Eaker, R., & Many, T. (2005). Recurring themes of professional learning communities and the assumptions they challenge. In R. Dufour, R. Eaker, & R. DuFour (Eds.), *On common ground: The power of professional learning communities* (pp. 7–30). National Education Service.
- DuFour, R. DuFour, R., Eaker, R., & Karhanek, G. (2009). *Raising the bar and closing the gap: Whatever it takes*. Solution Tree.
- DuFour, R., & Marzano, R. J. (2011). *Leaders of learning: How district, school, and classroom leaders improve student achievement*. Solution Tree Press.
- Entorf, H., & Minoiu, N. (2005). What a difference immigration policy makes: A comparison of PISA scores in Europe

- and traditional countries of immigration. *German Economic Review*, 6(3), 355–376. <https://doi.org/10.1111/j.1468-0475.2005.00137.x>
- Evans, G. W. (2004). The environment of childhood poverty. *American Psychologist*, 59(2), 77–92. <https://doi.org/10.1037/0003-066x.59.2.77>
- Fagan, J. (2017). Income and cognitive stimulation as moderators of the association between family structure and preschoolers' emerging literacy and math. *Journal of Family Issues*, 38(17), 2400–2424. <https://doi.org/10.1177/0192513x16640018>
- Ferguson, B. T., Tilleczeck, K., Boydell, K., Rummens, A., & Reth, E. D. (2007). *Early school leavers: Understanding the lived reality of school disengagement from secondary school*. Final report.
- Fullan, M. (2001). *Leading in a culture of change*. Jossey Bass.
- Fullan, M. (2010). Choosing the wrong drivers for whole system reform. *Centre for Strategic Education Seminar Series*. Paper 24. <http://www.case.edu.ca>
- Fulton, K., & Britton, T. (2011). *STEM teachers in professional learning communities: From good teaching to great teaching*. National Commission on Teaching and America's Future.
- Haberman, M. (1991). The pedagogy of poverty versus good teaching. *Phi Delta Kappan*, 73(4), 290–294.
- Hall, P., & Simeral, A. (2008). *Building teachers' capacity for success: A collaborative approach for coaches and school leaders*. ASCD.
- Hargreaves, A., & Frank, D. (2006). *Sustainable Leadership*. Jossey Bass.
- Harris, A., & Chapman, C. (2001). Leadership in schools. *Report to the National College of School Leadership*.
- Hattie, J. (2009). *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*. Routledge. <https://doi.org/10.4324/9780203181522>
- Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. Routledge.
- Hopkins, D. (2001). *Meeting the challenge: An improvement guide for schools facing challenging circumstances*. Department of Educational Skills.
- Hord, S. M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. Southwest Educational Laboratory.
- Isaacs, J., & Magnuson, R. (2011). *Income and education as predictors of children's school readiness*. The Brookings Institute.
- Katz, S., Earl, L., & Jaafar, S. B. (2009). *Building and connecting learning communities: The power of networks for school improvement*. Corwin Press. <https://doi.org/10.4135/9781452219196>
- Lethbridge, L., & Phipps, S. (2006). Income and the outcomes of children. *Analytical Studies Branch Research Paper Series*, 24-F.
- Leithwood, K. A., Steinbach, R., & Jantzi, D. (2002). School leadership and teachers' motivation to implement accountability policy. *Education Administration Quarterly*, 38(1), 94–119. <https://doi.org/10.1177/0013161x02381005>
- Levin, B. (2007). Schools, poverty, and achievement gap. *Phi Delta Kappan*, 89(1), 75–76. <https://doi.org/10.1177/003172170708900115>
- Ma, X., & Klinger, D. A. (2000). Hierarchical linear modelling of student and school effects on academic achievement.

- Canadian Journal of Education*, 25(1), 41. <https://doi.org/10.2307/1585867>
- Marks, H. M., & Louis, K. S. (1999). Teacher empowerment and the capacity for organizational learning. *Educational Administration Quarterly*, 35(5), 707–750. <https://doi.org/10.1177/0013161x99355003>
- Murphy, J. (2002). Reculturing the profession of educational leadership: New blueprints. *Teachers College Record*, 104(9), 65–82.
- Mullis, I.V. S., Martin, M. O., Foy, P., & Drucker, K. T. (2012). *Progress in international reading literacy study [PIRLS] 2011. TIMSS & PIRLS International Study Center, Lynch School of Education, Boston College.*
- National Assessment of Educational Progress [NAEP]. (2005). *The nation's report card*. National Centre for Educational Statistics.
- OECD (2000) Annual Report, OECD Publishing, <https://doi.org/10.1787annrep2000-en>
- Putnam, R. T., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1), 4–5. <https://doi.org/10.3102/0013189x029001004>
- Reason, C., & Reason, L. (2007). Asking the right questions. *Educational Leadership*, 65(1), 36–40.
- Reeves, D. (2006). *The learning leader: How to focus school improvement for better results*. ASCD.
- Reynolds, D., Hopkins, D., Potter, D., & Chapman, C. (2001). *School improvement for schools facing challenging circumstances: A review of research and practice*. Department of Skills.
- Rosenholtz, S. J. (1991). *Teachers' workplace: The social organization of schools*. Teachers College Press.
- Sharratt, L., & Fullan, M. (2009). *Realization: The Change Imperative for Deepening District-Wide Reform*. Corwin Press. <https://doi.org/10.4135/9781452219486>
- Shields, C. M. (2004). Dialogic Leadership for Social Justice: Overcoming Pathologies of Silence. *Educational Administration Quarterly*, 40(1), 109–132. <https://doi.org/10.1177/0013161x03258963>
- Statistics Canada (1990). Vulnerability Index. Special Survey Division, Statistics Canada.
- Statistics Canada. (2011). Census of Population Program Data, Government of Canada Publication
- Stroll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of literature. *Journal of Educational Change*, 7, 221–258.
- Stronge, J. H., Richard, H. B., & Catano, N. (2008). *Qualities of effective principals*. ASCD.
- Toronto District School Board. (2008). Urban diversity strategies. Focus on student achievement: Raising the bar and closing the gap.
- Tashakkori, A., & Teddlie, C. (2003). Handbook of mixed methods in social and behavioral research. *Journal of Mixed Methods Research*, 1(1), 3–7.
- Thomas, E. M. (2007). *Readiness to learn at school among 5-year-old children in Canada*. Report.
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24(1), 80–91. <https://doi.org/10.1016/j.tate.2007.01.004>
- Volante, L., Schnepf, S. V., Jerrim, J., & Klinger, D. A. (2019). Socioeconomic inequalities and student outcomes: Cross-

- national trends, policies and practices.
Singapore Pte. Ltd.
- Vygotsky, L. S. (1978). *Mind in society*.
Harvard University Press.
- Willms, J. D. (2007). Ten hypotheses about
socioeconomic gradients and community
differences in children's developmental
outcomes. Report SP-560-01-03E. Applied
Research Branch, Human Resources
Development, Canada.
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