INSTRUCTIONAL SUPERVISION IN JAMAICA: PERSPECTIVES OF PRINCIPALS AND TEACHERS

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ABSTRACT

INTRODUCTION: Crime retards all forms of social development, including educational advancement. The general crime problem in Jamaica is such that it is now the leading national problem followed by unemployment and education, and this is affecting the amount of time principals allot to its management compared to instructional supervision or leadership.

OBJECTIVES: The objectives of the current study are 1) To evaluate the perceived usage of instructional supervision in non-traditional high school in Kingston and lower St. Andrew; 2) To determine factors that influence instructional supervision in non-traditional high school in Kingston and lower St. Andrew; 3) To examine disparities in instructional supervision by particular socio-demographic characteristics, and 4) To assess the effectiveness of principals’ supervisory practices in non-traditional high schools in Kingston and lower St. Andrew.

METHODS: This study employed a positivistic theoretical framework which allowed for a survey research methodology that was based on 1) measurement and sampling, 2) questionnaire, and 3) statistical analyses.

FINDINGS: Among the results of this study are 1) low instructional cultured leadership, ineffective supervisory practices, poor performance of students and direct association between instructional supervision and students’ performance.

CONCLUSION: The failure of many schools and their principals is based on the time allotted to security management, corrective measures and social deviance among their students and principalship instead of instructional leadership. The current empirical findings provide insights to the practices (or lack of) among principals in violent prone communities or students are mostly drawn from violent areas. This work, therefore, the basis upon which policies can be implemented and interventions can be fashioned as well as future research be structured for the functioning of such these institutions.

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BACKGROUND

The general crime problem in Jamaica is such that it is now the leading national problem followed by unemployment and education (Powell, Bourne and Waller, 2007, 49). This national problem extends beyond Jamaica and the wider Caribbean (Harriott, 2003; Robotham, 2003; Harriott, 2004; Bourne, 2011) to the world. Bourne, Pinnock and Blake (2012) opined that Jamaica is among the top 10 most murderous countries in the world (see also, Bourne, 2012; Bourne and Solan, 2012). According to Bourne and Solan (2012) “The nexus of violent crimes in Jamaica goes back to pre-emancipation, when the revolt of the slaves would lead to their capture and murder” (p. 59), suggesting the long standing problem with crime and violence and survivability. Crime is, therefore, at a pandemic proportion in the Jamaica, and it has infiltrated schools which is equally the case in other geo-political areas in the globe (Soyibo and Lee, 2000; Shafii and Shafii, 2001; McEvoy and Walker, 2000; Bastian and Taylor, 1991; Batche and Knoff, 1994).

Crime retards all forms of social development, including educational advancement. Crime, victimization and violence are major issues in inner-city communities, which extend to the schools therein. In Jamaica, crime and education are among the top 3 leading national problem (Powell, Bourne and Waller, 2007) indicating the dilemma of the society when both are twinned in a single space. In an effort to address the crime and violence problem, particularly in schools in Jamaica, many changes have been instituted by school personnel as well as the Ministry of Education. Peace and Love in Schools (PALS), Deans of Disciplines in all secondary educational institutions are among some of the changes which have been made in an attempt to arrest the violence problems experienced in many schools.

Although the violence in schools is substantially experienced by those in inner-city communities, particularly among the non-traditional secondary ones, some of the traditional high schools have had to address this pandemic. Schools’ personnel, especially those in inner-city non-traditional secondary institutions, have been preoccupied with changing the violent environment in order to facilitate a good milieu for teaching-learning. This is resulting in many changes in how schools operate, and the new milieu in which principals in non-traditional secondary educational institutions must now think. With the demand of seeking to produce a good environment for teaching-and-learning, many principals whose students are drawn from inner-city violent communities or are in violent prone areas change their thinking to include violence management, punishment and strategies to combat violence instead of emphasizing instructional supervision.

Change is an unknown concept which ignites fear, apprehension, intolerance, resistance and disgust because of its nature. The issue of change does not come with a prescription of the stated reality as it is embedded in the unknown or a futuristic outlook that is concretized in finite results. The future is driven by the past (history), but still it is not felt solely to such dictates. It is this reality that set the framework for the resistance to change. Change which is “the move away from a present state toward a future state” (Rashid, et al., 2003, 161) is not only labelled in perception as is the fear of the unknown. People live in the present, guided by the experiences of the past.
and anticipate the future because they hope of betterment. This suggests that their behaviours are enclosed in past, current realities and futuristic outlook. Such situations provide the basis upon which the socialization (or culturalization) works, the people are framed and future is advanced.

The person is, therefore, a product of his/her socio-economic, political and physical milieu, and which is carried into an organization. It is not surprising that Rashid et al. (2003) stated that “Although people are the most important factor in making change, however, they are also the most difficult element to deal with” (162), because they come to work after the culturalization has been established, implemented and instilled in them. The organization must, within the context of a dynamic environment more so in the era of globalization and telecommunication as well as violence, embrace changes and seek to adopt them in order to survive with all its components. The various components comprised capital, entrepreneur, land and labour (i.e. the people).

Like Rashid and colleagues argued, the people who are the most resistance to change can reduce, alter and erode the intended goal(s) of an organization owing to their culturalization and attitudes towards change (cognitive, affective and behavioural). The resistance to change are sometimes enveloped in the ‘dealignment’ between the organizational objectives and those of the employee, the outlook of the employee and his/her perception of the foci of the institution and the role (s)he plays in that position, and resistance to change owing to personality traits. In addition to the individualized culture of the people in the organization, there is a different organizational culture that is formed in institutions that play a key role to the change process (Pool, 2000; Ahmed, 1998; Silvester and Anderson, 1999; Rashid et al., 2003).

Lunenburg and Ornstein (2008) opined that since the mid 1980’s the pendulum has swung from equality to excellence in education, “national attention has turned to the need for higher academic standards.” Findings from studies done around this period show low performance that must be addressed. Among the recommendations for addressing these standards is a greater leadership role for principals. In a study done by Boone, Hartzman and Mero (2006) in Washington a principal gave his opinion that the school was not preparing students as well as it could so students were performing poorly on state assessments. He believed that the only way to improve the school was to have a full time instructional leader who could help teachers focus on students’ learning.

The government of the day, in 2003 because of a general outcry on the poor state of education in Jamaica appointed a task force to review the education system (Davis, 2004). This task force found among other things that the performance of the students at the Caribbean Secondary Examination Certificate (CSEC) especially in Mathematics and English Language was poor. In 2008, 54.4% of students who sat English Language scored grades ranging from one to three while 43% scored the same grades in Mathematics. Among the key issues examined by the task force were governance and management by the Education System, and curriculum teaching and learning support.

The Task Force on Education Reform Report 2004 (Davis, 2004) revealed that school leaders and managers will have the responsibility for how institutions are managed. They will be held accountable for students’ achievement. Recommendations were made as to the type of leadership teachers require. Lunenburg and Ornstein (2008) postulated that for a school to be effective it requires an instructional leader who understands and applies the characteristics of instructional effectiveness.
According to Beach and Reinhartz (2000) list as one of the characteristics of an effective school the principal as a leader. Hoy and Miskel (2008) go on further to state that in popular researches of the 70’s one of the factor of effective schools as purported by Ronald Edmonds (1979) is strong leadership by the principal, especially in instructional matters. The role and function of the principals, particularly in non-traditional inner city schools, are to manage its work force, students, plant and the new wave of violence.

An examination of the Educational Act outlines the roles and responsibilities of public educational institution, and the Act was published prior to the wave of violence experienced by many secondary schools. The Education Act (1980) sets out the duties and responsibilities of the principal in schedule D (4) as: A principal shall be responsible as professional head of the institution and as chief executive officer of the board of management for (1) Formulating in consultation with members of staff, the curriculum, syllabus and time –table of the institution, within the general educational policy laid down by the minister and the board; (2) Planning and administering the day-to-day educational programme and supporting services of the institution, and carrying out such policy decisions as the Board may delegate for the efficient and orderly conduct of the day-to-day administration of the institution; (3) Holding regular staff meetings to consider all matters relating to the work of the institution, and (4) Such other duties and responsibilities as may be prescribed by the Board or by the Minister (pp. 58-59).

Principals in educational institutions in Jamaica, especially those in inner-city communities or from which the majority of the students are drawn from violent inner-city communities must carry out the normal mandate as stipulated by the Education Act (1980) as well as manage being called upon to be security managers. Hence, the society expects to have the schools at certain levels there is sometimes unclear policies as to the role of principals in certain schools as there are some mitigating factors which hamper certain duties of the principals for example the location of the institution – in violent prone communities. In a study done in a Kenyan secondary school, Ogella (2004) opined that ‘Instructional supervision’ is characterized by conflicting role expectations that cause stress and mistrust and that the development of clearly written policies of instructional supervision is an area needing greatest attention. Another group of scholars, Robbins and Coulter (2009) postulated that organizations need effective leaders and one factor which is important in becoming an effective leader is training. Such a position, within the context of some schools being located in violent prone communities, would require the principals to be trained in security management in addition to their educational and administrative training.

Prior to 2006, an extensive search of documents by the researcher (Acting Principal at one of the non-traditional schools in which students are drawn substantially from violent communities), revealed no material which shows the specific training to be given to Principals in Jamaica. Principals, therefore, were appointed from regular classroom teachers or senior teachers who have gained a first degree and would have been selected by virtue of length of service. In 2006 the University of the West Indies began a diploma in school leadership which targeted principals. According to Dr. Beverly Bryan Head of Department of Education at University of the West Indies in a summary of her department (2006), the programme began as a three year project with the Ministry of Education to train principals. Despite the efforts of the University of the West Indies to train Principals, the
change in the wider society towards solving crime and violence, has shifted the attention of many schools’ administrators from teaching-learning to security management. Although a critical function of principals is to educate the children in their care, this is increasingly difficult in a milieu of violence, fear of victimization and wider societal problem of crime and violence. In spite of the challenges faced by principals, this study aims to examine the ‘Principals’ and teachers’ perception of the practice of instructional supervision in secondary schools in Kingston and Lower St. Andrew’ as this will provide an insight into the role of principals and the time they allot to other activities instead of educational supervision of the teaching-learning process. In keeping with the providing information for policy actions and guidelines and general information on the matter of instructional supervisions in schools, a number of research objectives were identified. These are: 1) To evaluate the perceived usage of instructional supervision in non-traditional high school in Kingston and lower St. Andrew; 2) To determine factors that influence instructional supervision in non-traditional high school in Kingston and lower St. Andrew; 3) To examine disparities in instructional supervision by particular socio-demographic characteristics; and 4) To assess the effectiveness of principals’ supervisory practices in non-traditional high schools in Kingston and lower St. Andrew.

THEORETICAL FRAMEWORK

A theoretical framework is a self-conscious set of (a) fundamental principles or axioms (ethical, political, philosophical) and (b) a set of rules for combining and applying them (e.g. induction, deduction, contradiction, and extrapolation). A theoretical framework defines the objects of a discourse, the permissible ways of thinking about those objects, and so determines the kinds of knowledge about the objects that can be produced legitimately within the framework” (Cubitt, S, personal communication, October 6, 2005 in Waller, 2006, 25).

The science of research is therefore not only expressed in natural (or pure) sciences like chemistry, physics, medicine, mathematics and metaphysics; but it is in the theoretical framework and the methodology that are applied to the investigation. For centuries Positivism which is a theoretical framework has been used to guide methodologies that were primarily quantitative (Kuhn, 1996; Balashov and Rosenberg, 2002) and accounts for discoveries like Newton’s Law “F=ma” (Force is equal to product of mass and acceleration). Scientific attitude was guided by this theoretical framework as science was embodied in proof, verification, validation and objectification. This explains the preponderance of inquiries that utilize the positivism and post-positivism theoretical framework and methodologies that were primarily objective – quantitative analyses (or survey research, experimentation, statistical analyses, measurement and scaling, sampling and questionnaire).

Crotty (2005) remarked that:

...we describe the philosophical stance that lies behind our chosen methodology. We attempt to explain how it provides a context for the process
and grounds its logic and criteria... (and) this is precisely what we do when we elaborate our theoretical perspective (Crotty, 2005, 7).

Such an elaboration is a statement of the assumptions brought to the research task and reflected in the methodology as we understand and employ it (Crotty, 2005, 7). Although empirical evidence which emerged from positivistic and post-positivistic epistemologies are in times generalization and provide an insight of what affect a population of people from within a nation (society, village, or community), the reality is solely limited to such inquiries. There is no denial that scientific investigations are carried out by way of positivism and/or post-positivism. This allows for objectivism, precision, generalizability, repeatability and proof (Kuhn, 1996); but this is not the only way to “search for truth” (Kuhn, 1996; Crotty, 2005; Balashov and Rosenberg, 2002) and/or to understand human behaviour.

The primary issue of what explains human behaviour or the rationale behind their actions goes beyond empiricism in order to ascertain discovery of the truth. Positivism or post-positivism is based on the principle to “search for the truth as well as to ascertain what it is” therefore cannot be only driven by objectivism. While empiricism is responsible for plethora of germane and critical discoveries that have aided humans’ existence, it fails to explore potent things about people. Peoples’ behaviours are not predictable, stationary, and while some generalizability exist therein, the ‘whys’ (meanings) are still unasked with the use of empirical inquiry (or objectivity and measurability). Qualitative inquiry mitigates some of the inadequacies of objectivity, provides rich data on humans’ experiences, and aids in a total understanding of people (Balashov and Rosenberg, 2002; Silverman, 2005; Neuman, 2006; Kuhn, 1996; Berg, 2001; Burnham, et al., 2004; Goel, 1988). Schlick (1979) succinctly argued that we cannot know the truth without knowing the meaning (p.15). Inspite of the depth to which qualitative research could add to this study, the researcher chose a quantitative approach to this work.

The Framework that guides this study is one developed by Richard D. Jones (2010, 42). The framework is captured in what is referred to as the Quadrant D Leadership models, below (Figures 1 and 2).

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Figure 1. Quadrant D Leadership Framework by Richard D. Jones (2010, 41)
Using a quantitative methodology, Jones (2010) modelled factors account for instructional leadership by team leaders (or principals). Hence, the fundamental theory that provides a philosophical stance for this study is Jones’ Quadrant D leadership framework.

Glickman, Gordon and Ross-Gordon (2007) theorizing is aptly used by many secondary educational institutions. Such ‘supervisory platform’ is based on the premise that human development is the aim of education. As schools grapple with the many challenges facing the education system including security management owing to violence and other social deviance among students, the role of the principal becomes very critical (Johnson and Ezenne 2008). School leaders and managers will have the responsibility for how institutions are managed. They will also be accountable for students’ achievement (Davis, 2004). The primary purpose of supervision is to support and sustain all teachers in their goal of career-long growth and development which ultimately results in quality instruction (Beach and Reinhartz 2000). Supervision is the function in schools that draws together the discrete elements of instructional effectiveness into whole school action (Glickman, Gordon and Ross-Gordon, 2007). Jones (2010) aptly summarized the ‘Instructional Leadership, when he wrote that

Understanding the Quadrant D Leadership Framework gives schools leaders a mental model for attacking the adaptive challenges of instructional leadership. Instructional leadership involves developing a common vision of good instruction; building relationships; and empowering staff to innovate in instruction, give one another feedback, and share best practices (Jones, 2010, 38).

Jones’ theorizing provides a good summative perspective on framework for Instructional Leadership, roles and responsibilities and duties of the leader (principals or senior administrator of an educational institution). It can be deduced from Jones’ work, that instructional supervision is simply more than dictating assignments and merely providing documentary issues for regulators to actually supervising the teaching-learning process. He
went further to detailed framework of instructional leadership (or supervision) by list a 25-item practice of leaders. These were: 1) Academic intervention; 2) Balanced assessments; 3) Celebrations; 4) Classroom walk-throughs; 5) Co-teaching/team teaching; 6) Grading; 7) Individualized professional learning; 8) Instructional coaching; 9) Instructional technology; 10) Leadership teams; 11) Mentoring; 12) Needs assessment/strategic planning; 13) Peer review of student work; 14) Personnel and budgets; 15) Policies and procedures; 16) Professional development workshops; 17) Professional learning community; 18) Rigor/Relevance Framework; 19) Master schedule/teacher assignment; 20) Staff meetings; 21) Staff reviews and evaluations; 22) Student achievement data analysis; 23) Teacher incentives and rewards; 24) Teacher observations/study tours; and 25) Vision/mission/goals.

Jones grouped the 25-item practices into four areas—(1) management, (2) empowerment, (3) vision, and (4) culture, which became the mental model of the Quadrant D Leadership Framework (Figure 1). He opined that the Quadrant D Leadership framework “… guides leadership in deciding which processes will work best in a given situation” (Jones, 2010, 41) and that the there is a low-to-high instructional leadership practice at a particular quadrant. It can be extrapolated from Jones’ ‘Theoretical Framework’ that effective leadership of an educational institution is not automatic and the chief administrator must be actively engaged in the teaching-learning process (Quadrant D) and not merely institute policy and procedures, staff reviews and evaluation and budgets (Quadrant A – low application and low knowledge) which are in keeping with administrative requirements of the job.

Instructional supervision is more specialized because it stresses the unique aspects of teaching —learning process. This perspective often puts the supervisor in a clinical role using diagnostic and prescriptive approach to classroom instruction and provides feedback to teachers. (Glickman, Gordon and Ross-Gordon, 2007; Jones, 2010). The reality is, educational leadership is critical to the holistic development of the school including the pupils (Southworth, 2002). Bush succinctly captured the importance of educational leadership, when he opined that:

There is great interest in educational leadership in the early part of the 21st century. This is because of the widespread belief that the quality of leadership makes a significant difference to school and student outcomes. In many parts of the world, including South Africa, there is recognition that schools require effective leaders and managers if they are to provide the best possible education for their learners. As the global economy gathers pace, more governments are realising that their main assets are their people and that remaining, or becoming, competitive depends increasingly on the development of a highly skilled workforce (Bush, 2007, 391)

In keeping with the educational leadership styles, Bush (2003) identified eight (8) leadership models of which instructional is one. If the management of an educational institution must be done in a holistic way; then, leadership of these institution can be effective (or otherwise) based on managing the teaching and learning process as a critical component educational leadership (Bush, 2003; Southworth, 2002). The educational management of an institution is therefore a complex set of activities as the new ethos is to manage a culture in addition to 1) staff, 2) plant and equipment, and 3) meet administrative requirements. According to Kruger (2003):

Principals of South African schools face two major challenges in their day-to-day management duties, namely, (1) handling a greater variety of school-based decisions than...
before, and (2) creating a sound culture of teaching and learning in which effective education can take place. The current international trend in education reform and restructuring is the decentralisation of decision making powers to the local and school level. The vehicle of this reform is school-based management which implies an increase of the responsibilities of school management teams and school governing bodies (Kruger, 2003, 206).

The school is a complex set of components, which require a leader who understands the various units, challenges, cultures, demands and expectations. Although the principal (or chief administrator) of an educational institution is required to meet administrative procedures and task, his/her duties are not limited solely to these activities or principalship (MacNeil, Cavanagh and Silcox, 2003; Bush, 2003; Beck and Murphy, 1993). Bush (2003) quoting the South African Task Team report (1996) provided a summary which fittingly speaks to an educational leader being required to provide management of his/her institution which extends beyond principalship to monitoring the teaching-and-learning process:

Management in education is not an end in itself. Good management is an essential aspect of any education service, but its central goal is the promotion of effective teaching and learning ... The task of management at all levels in the education service is ultimately the creation and support of conditions under which teachers and their students are able to achieve learning ... The extent to which effective learning is achieved therefore becomes the criterion against which the quality of management is to be judged (South African Task Team report 1996:27 in Bush, 2003, 401).

Using Jones’ Quadrant, there can be effective and ineffective administrators as the role and duties of the chief educational administrator are not only principalship. Hence, the issue of instructional leadership is important and critical to the effective development of an educational system, and so attention must be placed in the area of instructional leadership (Copeland II, 2003). The principal, therefore, must be a steward of his/her teaching and students as well as carry out principalship obligations in order to be considered an effective leader.

PRINCIPAL EFFECTIVENESS

A commonly heard contention is that principals are the key to school effectiveness (Hoy and Miskel 2008; Bush, 2003; Kruger, Copeland II, 2003). Hoy and Miskel (2008) cited Leithwood, Louis, Anderson and Walstrom (2004) as saying that three ways in which educational leadership makes a difference in the improvement of students learning are: 1) Setting direction clear and understandable goals and course of actions, 2) Developing people by providing educators with needed support and training, and 3) Redesigning the school organisation so that it works to ensure that a wide range of conditions and incentives support teaching and learning (p 305-306).

Lunenburg and Ornstein (2008) described the effective principal as one who evidences strong leadership in the areas of curriculum development and instruction and one who: 1) Keeps the interest of the students at heart; 2) Is a leading learner; 3) Acts ethically; 4) Puts instructional leadership first; 5) Practice efficient management; 6) Builds strong relationships; 7) Knows what to expect; 8) Orchestrate school community partnerships; 9) Is a lifelong learner, and 10) Builds a positive school climate (pp 2, p316). Like Jones (2010) forwarded, an effective educational leader (or principal) must coalesced a number of resources and maintain the desired outcome of teaching-and-learning, while attaining the administrative requirement.
EFFECTIVE SCHOOLS

Griffin (2002) stated that effectiveness is how well an organisation understands reacts to and influence its environment. He further stated that there is no consensus on how to measure effectiveness. According to Glickman, Gordon and Ross-Gordon (2007) research began in the 1970’s to focus on individual school that were exceptional, that consistently did well. They further stated that these schools did not get any special allowances but were similar to all schools yet they succeed while others fail. It was based on these studies that one of the researchers Ronald Edmund(1979) as quoted in Glickman , Ross and Gordon (2007) came up with the following characteristics of effective schools: 1) Strong leadership; 2) A climate of expectation; 3) An orderly but not rigid atmosphere; 4) Communication to the students of the school’s priority on learning the basics; 5) Diversion of school energy resources when necessary to maintain priorities, and 6) Means of monitoring students(and teacher) achievement (pp4, p.38).

The second wave of research, Austin and Reynolds (1990) came up with a far more extensive list which include Curriculum and instructional articulation; Staff development; Recognition of academic success; Parental involvement, and Order and discipline (Glickman, Gordon and Ross-Gordon 2007) (p38-39). According to Lunenburg and Ornstein (2008) most of the recent research on effective schools was focused on elementary education. They posited further that most of the authors of these studies have identified specific characteristics of effective elementary schools as having to do with outstanding students’ achievement.

An analysis used by the Connecticut School Effectiveness Project as stated by Lunenburg and Ornstein(2008) is that effective schools have the following characteristics; Safe and orderly environment; Clear school mission; Instructional leadership; A climate of high expectations; High time on task; Frequent monitoring of students’ progress, and Positive home school relations (pp4, p345). Hoy an Miskel (2008) on the other hand stated that schools can be thought of as a set of elements – individual, structural, cultural and political and that the organisation is a function of the interaction of these elements and if all things are equal the greater the congruence among elements the more effective the system will be (pp4, p30-31). They went on further to state that effectiveness is not one thing. Indicators can be derived from each phase of the open system cycle inputs (human and financial resources), transformation (internal processes and structure) and outputs (performance outcomes) (pp2, p296; see also Bamburg and Andrews, 1991).

Another school of thought described good schools as ones in which the environment is clean and secure, which promote and model fairness, equity, caring and respect, contribution of students in meaningful ways and the promotion of caring and positive social relationships (Parkay, Hass, and Anctil, 2010; Caldwell, 1998). It can be extrapolated from the literature that the effective management of a school must take into consideration the school’s instructional resources, which is a make for effective leadership and by extension effective schools (Heck, 1992:29, Preedy, 1993:1-5, Chisholm & Vally, 1996:24-29).

INSTRUCTIONAL LEADERSHIP

Lunenburg and Ornstein (2008) postulated that instructional leadership typically focuses “on the behaviours of teachers as they engage in activities directly affecting the growth of students.”
Hoy and Miskel (2008) opined that “instructional leadership is a particular form of leadership that emphasises the improvement of teaching and learning in the school’s technical core”. They go on further to state that “such leadership can come from a variety of sources including principals, teachers, parents, administrators and students”. Hanson (2003), on the other hand, stated that “instead of being the person in direct control of the school or school district, the leader is seen as the person in the middle who must somehow perform acts that must satisfy a multitude of complex and other conflicting demands”.

Educational leadership and management have now extends to include instructional leadership (Hallinger, 2009). He argued that the issue of instructional leadership emerged as a paradigm in the 1980s for school leadership and management in the United Stated.

The theories in instructional leadership were that the principal was critical to an effective educational institution. A group of researchers elaborated that change in school management and leadership is that of effectively managing all the resources, which includes the teaching-learning process and not merely the being consumed with administrative responsibility at the expense of improving the students’ learning. They opined that:

The work of school leadership is undergoing a revolution. The recent policy press for standards and accountability has led policy makers and the public to hold teachers and schools responsible for improvements in student learning. While teachers are ultimately responsible for improving student learning in schools, changing the organizational conditions for improvement across schools is the central task of school leaders. (Halverson, Grigg, Prichett, and Thomas, 2005, 3)

With the continuous demands and changes in the educational system, the principal is expected to be leading the entire teaching-learning apparatus, without exception of managing the physical plant, human and financial resources, administrative requirements, growth and development of teachers and the teaching-learning process. In keeping with the aforementioned, the principals can be an effective (or an ineffective) manager of the complex educational system. Blase and Blase (2000) examined instructional leadership exercised by principals through questioning teachers (using open-ended questions) by which they establish the effectiveness of instructional leadership practiced by particular school leaders. Jones (2010, 46-48) when about this by way survey research in which a set of close-ended questions were asked of teachers (see also, Enueme and Egwunyegna, 2008; Lineburg, 2010; Alig-Mielcarek, 2003; Peariso, 2011; Copeland II, 2003).

An effective Principal, therefore, is engaged in instructional leadership activities which promote students achievement (Copeland II, 2003). Copeland II (2003, 216) developed a 6-item Likert Scale question to measure the principals’ involvement in the educational leadership that stimulates students’ achievement. He also developed a 6-item Likert scale question which captures scores the instructional leadership for a school’s principal. For this study, the researcher believed that Copeland II’s instructional leadership score index was approach and it therefore used to collate data from teachers as well as principals in Jamaica (Section IV of the questionnaire – Appendix). In addition, the value of the principal in students’ achievement was aptly captured in Copeland II’s work, which was used wholesaley used in this study (Section III of the questionnaire – Appendix).
METHODS AND MATERIALS

SURVEY RESEARCH

Survey research is well documented in the social sciences as a methodology which comes from positivism (or post-positivism) – (Crotty, 2005, 5). This methodology requires conceptualization and measurement of phenomenon as it seeks precision, objectivity and sometimes the forecasting of results (Blalock, 1982). According to Blalock (1982), “Conceptualization involves a series of processes by which theoretical constructs, ideas, and concepts are classified, distinguished, and given definitions that make it possible to reach a reasonable degree of consensus and understanding of the theoretical ideas we are trying to express” (p. 11). Suggesting that survey research can be used to formulate and construct theories and/or laws, extensively evaluate issues and understand general issues. Blalock (1982) noted that “By measurement, we refer to the general process through which numbers are assigned to objects in such a fashion that it is also understood just what kinds of mathematical operations can legitimately be used” (p. 11). Hence, survey research is built around conceptualization, measurement and objectivity before it can be used to establish laws and/or theories. Crotty (2005, 6) aptly summarizes the research process using objectivistic epistemology in a diagrammatic manner highlighting the rationale for conceptualization and measurement in survey research:

Objectivism

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<tr>
<th>Positivism</th>
<th>Survey research</th>
<th>Statistical analysis</th>
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Figure 3.2: Four elements of objectivistic epistemology

There is no denial that objectivism can be used to formulate social theories and/or laws, which can be accommodated by way of survey research and sometimes advanced multivariate statistical techniques. The present study seeks to generally understand a phenomenon in attempting to 1) test hypotheses, 2) generalize, 3) use scientific proposition and 4) guide policy formulations; hence, the use of conceptualization and measurements, sampling, data analysis, and document reviews.

Embedded in Crotty’s objectivistic schema is survey methodology, which is widely used by social scientists. Survey research allows for the falsification of propositions, generalization and theorizing because of its emphasis on 1) conceptualization, and 2) measurement (Kuhn, 1996; Blalock, 1982; Rosenberg, 1985). Rosenberg’s opined that “A proposition is scientific if and only if it is falsifiable” (Rosenberg, 1985, 1), suggesting a schema, gradual development of issues and a systematization in the study of any science. Crotty was not the first academic to use a diagrammatic and systematic display to encapsulate something in social sciences as Alleyne and Benn (1989) used this approach in representing phases in a survey process. Alleyne and Benn outlined eight components in the survey process. These are as follow (Alleyne and Benn, 1989, 4):

1. Defining the problem;
2. Planning the execution of the survey;
3. Preparing an outline;
4. Designing the response schedule and pre-testing;
5. Sampling;
6. Interviewing;
7. Processing and analyzing the data, and
8. Reporting the results.

In order to define the research problem or understanding the researchable issues and its gaps, the researcher requires information on past studies, theorizing, methodologies, methods, measurement and conceptualizations. All those are enveloped in document reviews (or literature search).

DOCUMENTARY REVIEWS

A literature review is the documentary evidence which provides a comprehensive understanding of a problem and/or how other studies have approach related or similar issues in the past. Neuman succinctly summarized the literature when that “Reviewing the accumulated knowledge about a question is an essential early step in the research process, no matter which approach to social science you adopt. As in other areas of life it is best to find out what is already known about a question before trying to answer it yourself” (Neuman, 2006, 96). Based on the objectives of this study, this chapter provides a comprehensive documentary analysis of relative materials on Instructional Supervision, related materials in-and-outside country will be evaluated to provide an understanding of the phenomenon, a base for contextualization, and aid in the interpretation of the current findings.

The researcher reviewed written documents including books, journal articles, and company documents. The review was to determine 1) theoretical framework, 2) items for instrument, and 3) epistemological framework for the study, and 4) how to interpret the statistical analysis as well as study. A major reason for the document review was to assist in triangulating and validating information obtained in the survey, given that interviewees “rarely constitute the sole source of data in research” (Gubrium and Holstein; 104: Bryman, 2001; 274: Hertz and Imber, 1995; ix) as well as framing the study.

INSTRUMENT

To provide data for the quantitative aspect of this study, a survey was used as it allows for testing the theoretical model. A survey provides for the collection of vast number of data on any issue and for cross comparison of the results of the current study against those in other geopolitical areas (Powell, Bourne, & Waller, 2007). A standardized questionnaire was the choiced instrument to gather data from many people. The questionnaire had only close-ended items and it was written in English, as this is general language in Jamaica. There were 52 questions on the instrument (Appendix I). The questionnaire was sub-divided into four sections – Section One (demographic data – 9 items); Section Two (Instructional Items II – 31 items), Section Three (Instructional Items III – 6 items), and Section Four (Instructional Items IV-6 items).

Sections II to IV comprised of Likert Scale questions.

The survey method allows for the 1) measurement, 2) statistical analyses, and 3) objectivism. According to March and Bourne, “The objectivist epistemology holds sacred logic, precision, general principles, principles of verification, the standard of rigor, gradual development, establishment of laws, principles, theories and apparatuses ...” (March and
Bourne, 2011, 260), which are the rationale for the survey research and the statistical analyses that are embedded therein. The survey went through a process before it was finally accepted as the standardized instrument – pilot testing and retesting.

**PILOT STUDY**

Thomas Kuhn postulated that science not only embodies objectivity, logic, precision and general principles as humans are social beings (Kuhn, 1996), suggesting that inquiry must be a gradual development which is critical to the scientific method (Rosenberg, 1985). As such, we must understand the meaning behind people behaviours which can only be found through 1) observation, 2) experimentation, 3) interviews, and/or 4) survey research. Of the aforementioned methods, the current work uses a survey instrument. Having collated the items from different sources with cultural disparities from Jamaica, the instrument was tested for 1) clarity, 2) understanding of items, 3) language usage and context, 4) measurement and conceptualization, and 5) challenges and likely problematic issues that are inherent in the way the questions are phrased.

The collated survey questionnaire was pilot tested on a similar group of people with similar characteristics to the actual sample. Modifications were made to the initial instrument based on the feedback given by the participants. In addition to the participants, the questions were vetted by 1) teachers and principals, 2) a scholar in research and statistical methodology, and 3) a layman. Their input was fed back into a modified questionnaire in addition to those offered by the participants to formulate a modified instrument. The modified instrument was pre-tested on another group with characteristics of the sample, and their comments were fed into the process to form the final instrument.

**ETHICAL CONCERNS AND INFORMED CONSENT**

Like Kuhn noted science is so because of the approaches taken, the rigours followed, objectivity, measurement and gradual development. The social science is an inquiry into social phenomena, meaning peoples’ attitudes, behaviours and perceptions. Because social science is on people, care must be taken in how the information is gathered (Babbie, 2007; Neuman, 2006). To comprehend the seriousness of ethical issues, in Neuman’s book entitled “Social Research Methods: Qualitative and Quantitative Approaches’ chapter 5 reads ‘The Literature Review and Ethical Concerns’, suggesting that document analysis which provides the context for scientific investigation must take into consideration ethical standards that hold true throughout the research process. He opined that “Researchers need to prepare themselves and consider ethical concerns as they design a study so that sound ethical practices is built in to the study design” (Neuman, 2006, 116). He noted further that “Ethics define what is or is not legitimate to do, or what ‘moral; research procedure involves” (Neuman, 2006, 110).

In keeping with Neuman’s perspective, the researcher includes ethics as a part of the research process and followed it throughout. Firstly, the researcher ensures that nowhere on the survey instrument requires the participant to give his/her name, other personal identifiers and information that can be traced back to the individual.

Secondly, the participants were informed of their rights and responsibility of the subjects, and that they can withdraw from the process if they so desire. An informed concern Form was given to each willing subjects to sign before they were allowed to participate in the research (Appendices I & II).
VALIDITY AND RELIABILITY

Thomas Kuhn who had a doctorate in physics argued expensively on the validity and verifiability of qualitative inquiry despite it’s seemingly non-objectivism. Knowing how things operate was not singly embedded in empiricism, objective measurability and statistical analyses (Kuhn, 1996; Balashov and Rosenberg, 2002) as meaning accounts for actions that are sometimes outside of the realm of objectivism. It can be extrapolated from Kuhn’s perspectives that validity and reliability is equally important in all scientific inquiry, and the issues of conceptualization and measurement must include an aspect of validity and verification.

For any research project to be credible, its reliability and validity have to be clearly established (Wiersman, 2000). As such, the necessary steps taken to ensure that the proposed project has both internal and external validity and internal and external reliability on the instrument used are outlined. According to Wiersman, reliability is concerned with the reliability and consistency of the methods, conditions and results while validity deals with the accurate interpretability of the results and the generalizability of the results.

In order to ensure a high response rate on the questionnaire, the researcher ensured that all steps were taken to have the number of items not more than is necessary to elicit the required information, thus avoiding unnecessary and ambiguous questions. The researcher also established a directory of the respondents so as to be able to make the relevant follow up calls. The researcher also did personal deliveries and pickup of the instruments, in an effort to personally outline to the respondents the importance of their responses to the project.

In this study, reliability of some items was based on Equivalence Reliability - Cronbach alpha (Neuman, 2006, 180). This was compared based on high or low values of Cronbach alpha. Reliability was increased by way of using 1) previously tested items (or questions), 2) pre-testing, testing and post-testing of items. The researcher adheres to the following types of measuring validity – 1) Face validity, 2) Content validity, 3) Criterion Validity, and 4) Concurrent validity, (Neuman, 2006, 183).

Prior to administering the final question, the instrument went through a process of testing, retesting, and modifications in keeping with issues raised in the vetting and pilot testing process. Initially, the researcher construed a number of items that would adequately collect data that could allow for the testing of the hypothesis and addressing the objectives of the study.

The researcher carried out a pilot test using the modified questionnaire. On the questionnaire the scale items were taken and sometimes modified in keeping with the culture and context of Jamaican workers. The pilot testing was done at Pablo Wellington Institute (pseudo name), with 10 employees at different employment status. The overall time taken to complete the instrument was 30 minutes (+ 10 minutes). Adjustments were made to the final instrument based on queries, word usage, context, lack of understanding and weakness in construction. Following that exercise, the modified instrument was again done with another group of workers at Erone Research and Statistical Consultancy (pseudo name). The final instrument that emerged was a modified questionnaire that was administered to the participants of the study. The entire process of instrument design was aided by Rea and Parker’s book on designing and conducting survey research (Rea and Parker, 2005) as well as a copy of cross-sectional survey conducted by Powell, Bourne and Waller (2007) on probing political culture in Jamaica.
STATISTICAL ANALYSES

For this survey instrument (questionnaire), the large volume of data were stored, retrieved and analyzed using the Statistical Packages for the Social Sciences (SPSS) for Windows version 17.0 (SPSS Inc; Chicago, IL, USA). Descriptive statistics were performed on the data as well as percentages and frequency distributions. Ordinary least square (OLS) regression was employed to determine factors that explain Instructional supervision. Statistical significance was determined a p-value less than or equal to five percentage points (≤ 0.05) – two-tailed. In order to ensure that all the assumptions of OLS were maintained in this study, the researcher examined 1) autocorrelation, 2) linearity and 3) collinearity (Lewis-Beck, 1980; Mamingi, 2005). The general standards employed in this work, which raise concern about multicollinearity, are 1) Durbin-Watson test and 2) correlation coefficients. Where Durbin-Watson is between 1.5 and 2.5, there is no problem with multicollinearity (Mamingi, 2005). In addition to the aforementioned conditions, the researcher also chooses to evaluate the correlation coefficients as they provide another aspect to the examination of multicollinearity. Hence, “where collinearity existed (r > 0.7) the variables have been entered independently into the model to determine which of those should be retained during the final model construction. The final decision regarding whether or not to retain variables were based on the variables’ contribution to the predictive power of the model and its goodness of fit” (March and Bourne, 2011, 262; see also, Polit, 1996).

POPULATION AND SAMPLE

The logic of sampling is to make inferences about the population (Berg, 2001; 30, Goel, 1988; 111), which requires a well-defined and/or stated population. For this research, the population was people employed in the secondary educational institutions, particularly those in Kingston, and lower St. Andrew. A detailed description of the sample design is provided in Table 3.1. The final people for the survey (column 3) were chosen based on convenience. The entire sampling process was guided by Leslie Kish’s work on ‘Survey Sampling’ (Kish, 1965). The present sampling process represents a deviation from the full scientific principles of surveying as outlined by Kish. However, 30% of the population of teachers (including Vice Principals and Principals) were selected for the current study.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Participants</td>
<td></td>
</tr>
<tr>
<td>Main geographical areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kingston</td>
<td>165</td>
<td>70</td>
</tr>
<tr>
<td>Lower St. Andrew</td>
<td>234</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>399</td>
<td>120</td>
</tr>
</tbody>
</table>

LIMITATIONS TO THE STUDY

This study utilizes non-probability sampling technique which means that the results are 1) non-generalizable, 2) non-predictable, 3) specialised to the respondents and 4) non-repeatable. However, these methods still provide insightful, rich and critical information about the studied phenomenon. Like Thomas Kuhn and Max Weber say, qualitative research is equally informative and scientific as quantitative research. And the twinning of the methodologies means that there is triangulation to the results and a probe which unearth the essence of why there is a particular practice among the studied population. A copy of the proposal of the study is supplied with
this project. The current study represents a remarked transition from the proposal, as its development was more in keeping with a comprehensive understanding of the process compared to the proposal (XX).

FINDINGS

In this section of the paper, data were analysed and presented in order to answer the research questions. The data were presents using descriptive statistics, graph, bivariate and multivariate analyses. Data were collected from 73 participants.

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Table 1 presents information on the socio-demographic characteristics of the sampled respondents. The sample was 73 respondents. Of the respondents, the response rate of the gender question was 97.3 percentages, with 63.5 percentages being females. Seventy-six and four tenth percentages of the sample were from newly upgraded high schools, 56.3 percentages were trained graduates and the average age was 35.5 years ± 9.3 years. The average length of service (teaching) was 12.1 years ± 8.2 years, with mean length of time at the current institution being 10.5 years ± 8.4 years and the length of time spent working with current principal at the institution was 5.1 years ± 2.5 years. The religiosity of the sample was very low – median church attendance for a month being 3 times (range = 20, with a minimum being 0 and a maximum of 20 times).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>26</td>
<td>36.6</td>
</tr>
<tr>
<td>Female</td>
<td>45</td>
<td>63.4</td>
</tr>
<tr>
<td>School type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newly upgraded high school</td>
<td>55</td>
<td>76.4</td>
</tr>
<tr>
<td>Technical high school</td>
<td>17</td>
<td>23.4</td>
</tr>
<tr>
<td>Qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher trained certificate</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Teacher trained diploma</td>
<td>21</td>
<td>29.6</td>
</tr>
<tr>
<td>Pre-trained graduate</td>
<td>2</td>
<td>2.8</td>
</tr>
<tr>
<td>Trained graduate</td>
<td>40</td>
<td>56.3</td>
</tr>
<tr>
<td>Other (including masters)</td>
<td>7</td>
<td>6.9</td>
</tr>
<tr>
<td>Subjective social class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower (working)</td>
<td>14</td>
<td>20.3</td>
</tr>
<tr>
<td>Lower-Middle</td>
<td>24</td>
<td>34.8</td>
</tr>
<tr>
<td>Middle-Middle</td>
<td>28</td>
<td>40.6</td>
</tr>
<tr>
<td>Upper-Middle</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td>Upper</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Age mean ± SD (standard deviation)</td>
<td>35.5 yrs ± 9.3 yrs</td>
<td></td>
</tr>
<tr>
<td>Length of time in current job, mean ± SD (standard deviation)</td>
<td>10.5 yrs ± 8.4 yrs</td>
<td></td>
</tr>
<tr>
<td>Length of time teaching mean ± SD (standard deviation)</td>
<td>12.1 yrs ± 8.2 yrs</td>
<td></td>
</tr>
<tr>
<td>Length of time working with present principal mean ± SD (standard deviation)</td>
<td>5.1 yrs ± 2.5 yrs</td>
<td></td>
</tr>
<tr>
<td>Religiosity median (range)</td>
<td>3 times (20 = 20 – 0)</td>
<td></td>
</tr>
</tbody>
</table>
INSTRUCTIONAL LEADERSHIP

Table 2 summarises the information on the reliability of the overall instructional leadership index created with the cultural context of Jamaica, and its sub-components. The overall instructional leadership index is very good (Cronbach alpha = 0.95), with the weakness contributor being interpersonal development items (Cronbach alpha = 0.67). The conclusion, therefore, is that the items which constitute the instructional leadership index are very good proxy of the phenomenon.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number of items</th>
<th>Reliability value (Cronbach alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional development</td>
<td>4</td>
<td>0.762</td>
</tr>
<tr>
<td>Curriculum development</td>
<td>4</td>
<td>0.826</td>
</tr>
<tr>
<td>Action Research</td>
<td>4</td>
<td>0.765</td>
</tr>
<tr>
<td>Interpersonal development</td>
<td>4</td>
<td>0.668</td>
</tr>
<tr>
<td>Principal’s involvement</td>
<td>6</td>
<td>0.831</td>
</tr>
<tr>
<td>Effectiveness of instructional supervision</td>
<td>5</td>
<td>0.808</td>
</tr>
<tr>
<td>Principal’s supervisory practices</td>
<td>4</td>
<td>0.687</td>
</tr>
<tr>
<td><strong>Overall instructional leadership index</strong></td>
<td><strong>31</strong></td>
<td><strong>0.948</strong></td>
</tr>
</tbody>
</table>

Using the Instructional leadership culturally based index to evaluate instructional supervision of principals in non-traditional high schools from lower St. Andrew and Kingston had a mean score of 56.2 (standard deviation = 21.2) out of 107. Based on the values for the mean and the maximum, it can be concluded that instructional supervision is low.

The reliability of the Copeland II’s work instructional leadership items was 0.877 for a six item index. The mean score for this index was 16.2 ± 5.9, with the maximum score being 24. A mean value of 16.2 out of 24 represents a relatively high instructional leadership of principals from the sample. A frequency distribution of the aforementioned is summarized in Figure 1.

![Figure 1. A frequency distribution and normal curve of Copeland's Instructional Leadership Index](image-url)
INSTRUCTIONAL LEADERSHIP AND STUDENTS’ ACHIEVEMENT

The reliability of the Copeland II’s instructional leadership and its influence on students’ academic performance items was 0.924 for a six item index. Using the aforementioned index to evaluate instructional leadership and its influence on students’ academic achievement, this study found that the mean score was 17.7 ± 7.1, with the maximum score being 30. Hence, if follows from the mean score that instructional leadership influencing pupils’ academic performance was moderate. A graphical display of the index as it relates to a frequency distribution and a superimposed normal curve is presented in Figure 2.

![Figure 2. A frequency distribution and normal curve of Copeland’s Instructional Leadership and how it affect students’ academic performance Index](image)

Table 3 (end of the article) summarizes the descriptive statistics (mean, median, mode, standard deviation, range, skewness) of Copeland’s indexes, the cultured index (overall instructional leadership index) along with its sub-items (professional development, curriculum development, action research, interpersonal, principal’s involvement and effectiveness and supervisory practices indexes).

Based on the mean values, effectiveness of the instructional supervisory practices is very low (7.0± 3.8) out of 20 as well as principal’s supervisory practices (6.1± 3.5) out of 15, principal’s involvement (11.4± 3.8) out of 24. Using Copeland index, the mean value was 16.3± 5.9 out of 24 compared to instructional cultured index of 56.0± 21.2) out of 107.

BIVARIATE CORRELATIONS

Table 6 (end of the article) presents information on the bivariate correlations between different combinations of Copeland’s Indexes (Instructional Supervision and Instructional Leadership influence of Students’ Performance) and Instructional Cultured Index. A weak positive statistical correlation existed between Copeland’s instructional supervision index and the instructional cultured supervision index (Pearson’s Product Moment Correlation Coefficient = 0.269, P = 0.043). The scattered diagram for instructional cultured supervision index and Copeland’s instructional supervision index.
index was very weak. Only 7.2 percentages of the variability in the instructional cultured supervision index can be explained by a 1 percentage change in Copeland’s instructional supervision index (see Figure 3).

![Figure 3. Scattered diagram of Instructional Cultured Supervision Index and Copeland’s Instructional Leadership index](image)

**MODELLING INSTRUCTIONAL LEADERSHIP**

Table 7 (end of the article) presents information on an OLS (ordinary least square) regression of instructional cultured supervision and particular variables. Of the selected variables, only religiosity influences the dependent variable (Instructional Cultural Supervision Index). Religiosity accounts for 44.7 percentage of the variability in dependent variable. Furthermore, there is a positive correlation between religiosity and Instructional Cultural Supervision Index, indicating that participants who attend more are more likely to believe the there is greater instructional supervision by the principals and vice versa. It should be noted here that there is no difference in the opposition of participants based on 1) gender, 2) educational achievement, 3) length of service, 4) duration of time working with the current principal, 5), subjective social class, and 7) length of time in the teaching profession. The bivariate statistical association which exists between the Copeland’s instructional leadership index and the instructional cultured leadership index disappears with the introduction of other variables. Hence, the initial bivariate relationship is a spurious one. Based on the Durbin-Watson test value of 2.01, there is no problem with multiple collinearity among the variable independent variables. In addition to the aforementioned issues, the researcher tested the assumption of the regression technique to ensure that they were all met. These assumptions are tested in Figures 4 to 6.

**Dependent Variable: Instructional Cultural Supervision Index**

Figure 8 shows that no pattern is indicated by the data, which supports the linearity of the relationship.
Figure 4. Scatter plot of the predicted scores against the residuals.

Figure 6 displays the histogram of the frequencies of the standardized residuals and the superimposed curve signifies the ideal normal distribution of the residuals (see Lewis-Beck).

Figure 5. Histogram and normal distribution of the dependent variable (attitude to work) and regressors.

Figure 6 presents a cumulative probability plot of the standardized residuals. Owing to the fact that most of the points fall on the diagonal line, this means that the residuals are normally distributed.
Figure 6. Cumulative probability plot of standardized residuals.

Table 7 (end of the article) presents information on an OLS (ordinary least square) regression of Copeland’s instructional supervision index and particular variables. Of the selected variables, none of the variables emerged as statistical related to the dependent variable (Copeland’s instructional leadership index). In addition to the aforementioned issues, the researcher tested the assumption of the regression technique to ensure that they were all met. These assumptions are tested in Figures 4.7 to 4.9.

Figure 7 displays the histogram of the frequencies of the standardized residuals and the superimposed curve signifies the ideal normal distribution of the residuals (see Lewis-Beck, 1980; Mamingi, 2005).

Figure 7. Histogram and normal distribution of the dependent variable (attitude to work) and regressors
Figure 8 presents a cumulative probability plot of the standardized residuals. Owing to the fact that most of the points fall on the diagonal line, this means that the residuals are normally distributed.

Figure 9 displays that no pattern is indicated by the data, which supports the linearity of the relationship.

DISCUSSION AND CONCLUSION

The management and leadership of any educational institution must coalesce all the resources including human and capital (machines, equipment, and physical space), and not the least is the social milieu (Bush, 2007; Caldwell, 1998; Jones, 2010; Glickman, Gordon and Ross-Gordon, 2001). A successful school is a product of its leadership and management by a principal (Hoy and Miskel, 2008) who understands the importance of balancing all
requirements, with an equal emphasis on the teaching-learning process (Alig-Mielcarek, 2003; Blase and Blase, 2000) as evidence exists which shows that the principal’s instructional leadership affects job performance of teachers (Lineburg, 2010; Enueme and Egwunyegna, 2008; Hallinger, 2009; Halverson, Grigg, Prichett and Thomas, 2005; Kruger, 2003; Heck, 1992) and by extension the learning outcome of student (Leithwood, Seashore Louis, Anderson and Wahlstrom, 2004). An effective principal or school (Preedy, 1993; Bamburg and Andrews, 1991), therefore, is not adjudged based on fulfilled administrative requirements and/or the physical environment; but is on the outcome of children on success on internal and/or external examinations. As such, the principals’ responsibility and leadership of the institution will be tested more so when the external environment is a violent one and it interfaces with the internal function of the institution.

Bourne (2007) opined that “Schools are microcosm milieu of the community” suggesting that the school is social institution in a later social space defined as the community, society and nation. Hence, the fluidity of violence, murder and other criminal activities in many inner-city communities make the job of many principals increasingly difficult as they are not in control of the external environment and its influence on the internal operations of their schools. When Powell, Bourne and Waller (2007) found that crime and violence were the leading national problems identified by Jamaicans, it meant that schools were experience the crime pandemic and the social deviance was equally a societal as well as a school problem. Violence and crime are long established in Caribbean criminology, particularly in Jamaica, that these are inner-city phenomenon (Headley, 1994; Levy, 1996; Harriott, 2003a, 2003b, 2004; Robotham, 2003), which means that schools that located in those geo-political areas face more interruptions owing to violence, when the area is in turmoil. Schools which are located in divisive violent communities experience will have students whom are drawn from these communities, and the students are expected to harmoniously work together in a school environment when the early socialization is that they are foes (or enemies). There is no secret, therefore, that researchers have found that many schools’ environment are unsafe (Bastian and Taylor, 1991), which includes for learning and teaching.

In attempting to make the schools' environment safe for teaching-and-learning, many principals must dedicate a proportion of their time to security management, correctional behaviour management and social deviance supervision of students. Among the rationale for principals’ engagement and involvement in security management is the societal focus on violence in schools (Grumpel and Meadan 2000; Bourne, 2007; Soyibo and Lee, 2000; Batsche and Knoff, 1994; Glaser, 2000; Flannery, 1997; Smith and Sandhu, 2004; Ascher, 1994). Rightfully so, this is in response to the violence, nature of these violent acts, the aftermath of the violence and its retardation of the teaching-learning process (Skiba and Peterson, 2000; Soyibo and Lee, 2000). It follows; therefore, that violence prevention must be a part of the operations of schools’ management (Shafii and Shafii, 2001), particularly reducing it (Norguera, 1995). And this is predicated on the relationship between antisocial behaviour, the school’s climate and academic performance (McEvoy and Walker, 2000).

The experience of many principals of schools in inner-city communities as well as those with a substantial percentage of the student population drawn from violent prone areas is not only how to manage the internal violence; but it is how to manage the imported violence as well as community violence. Many inner-city
schools in Jamaica or students primarily drawn from inner-city areas are from opposing socio-political ideology, which means diverseness among residents of particular areas. The reality is, schools in inner-city areas or students primarily drawn from inner-city communities are brought into a single social space and are expected to work together without conflicts. The melting pot of these socio-political diversities in many schools in Jamaica means that conflict will arise, and these will result in ‘bloodshed’ because of how the children are drawn together. The principals of those schools must allocate some of his/her time to address security matters, social deviance and corrective measures in attempting to make the school a safe place for teaching-and-learning because violence translate into disruptions (Leone, Mayer, Malmgren, and Misel, 2000).

When the former Minister of Education and Prime Minister of Jamaica (The Most Rt. Hon. Andrew Holness) opined that some educational institutions continue to produce failing students and that they are ‘failed schools’ it brought much wrath from the wider society; but is this reality. Many educational institutions that are located in inner-city communities experience more delays, interruptions and fear of crime and victimization than pupils of schools in middle-to-upper class communities.

The interruptions mean less time for teaching-and-learning, fear and criminal victimization become barriers to learning and teaching and so the pupils are not equally taught as compared to those in middle-to-upper schools areas. Furthermore, results from the Ministry of Education (2009), Jamaica, revealed that students in public schools as well as many of the schools in inner-city communities got lower scores on the grade 4 literacy and numeracy tests compared to those in private schools and schools in non-violent areas. The Caribbean Examination Council (CXC) results revealed greater passes for those in traditional high than those in non-traditional high schools. The reality is the majority of the non-tradition high schools are in inner-city communities, which supports Mr. Holness’ perspective of failed schools and by extension failed principals.

The present study puts some context to Holness’ perspective and provides empirical findings on the matter. In order to assess principals’ engagement (or none engagement into instructional leadership and principalship), the teachers can provide a good measure of these issues. The average length of time in the teaching professional for the sample was 12.1 years (standard deviation = 8.2 years), with the duration at the current place of employment being 10.5 years (standard deviation = 8.4 years) and the mean length of time working with the present principal being 5.1 years (standard deviation = 2.5 years). The history of participants 1) time in teaching, 2) employment status at the current institution, and 3) engagement with the current principals is therefore a yardstick that can be used to evaluate the principal’s responsibilities, requirement shortfalls and involvement in the teaching-learning process. Having had one-half a decade interaction and work experience with the current principals and knowledge and expectation of principalship and the teaching-learning process, the participants in the current work indicated that there is low instructional leadership of their principals, and that their headship has not effectively used instructional supervision.

The findings relating to instructional leadership and how instructional supervision influences pupils’ academic performance, will be graphically present.

Table 5.1. Instructional cultured leadership

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>D</td>
<td>A</td>
</tr>
<tr>
<td>Low</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
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</thead>
</table>
Using Jones’s work (Jones, 2011) to interpret the present findings, the assessment of this research reveals that principals are in Quadrant C. Quadrant C is an indication that principals 1) walk through classes, 2) have staff meetings, 3) evaluate students performance records, 4) are engaged in professional development workshops, 5) have needs assessment, and 6) have set goals. According to Jones’ Quadrant approach, Quadrant D highlights effective instructional supervision (or leadership) as the principal is facilitating and guiding the teaching-learning process as against taking a handoff approach. It can be extrapolated from these findings that principalship takes presents over instructional leadership and that the head steward is more preoccupied with other matters than actively engaged into the teaching-learning process. Such a rationale is violent school and outside environment in which they operate.

A study by Powell, Bourne and Waller (2007) found in crime and violence were the leading national problems in Jamaica. The widespread societal social deviance is not limited to social spaces that exclude educational institution, and so principals in many inner-city communities have to face the difficult issue of managing the environment. With empirical evidence indicating that schools are unsafe places, which is particularly so for inner-city violent prone community and students who are mostly with low performing students that are from violent communities, social deviance and administrative duties consume a substantial part of their days. In seeking to make their schools safe places, the time spent with safety, security and administrative responsibilities have resulted ii ineffective schools, poor performing students and extremely low instructional supervisory leadership.

Poor performing pupils in many of the sampled schools is widely viewed by many a ‘failing’ schools. With the direct statistical association between instructional supervision and pupils’ academic achievement, it can be deduced from the current work that principalship is accounting for these ‘failing’ educational institutions. It follows, therefore, that the violence social climate (Powell, Bourne & Waller, 2007), especially for inner-city schools and students substantially drawn from violent communities have forced principals into security managers instead of instructional leaders. The participants in this research indicated that the performances of the students are low as well as the principals’ involvement into instructional leadership, which now indicate that general decay in the social fabric of the society is accounting for failed students, failed society and ineffective principals.

The literatures (Jones, 2011; Glickman, Gordon & Ross-Gordon, 2001; Copeland II, 2003; Bush, 2003, 2007; Caldwell, 1998) provide a contextual framework for the interpretation of the current findings, but fail to recognize the difficult of principals in inner-city schools. Undoubtedly the principals of inner-city schools in Jamaica must divide their time into being 1) administrators and 2) security managers, and the findings of this work indicating that they are ineffective instructional leaders is equally a fault of the society as it is theirs.

There is no denial the assessment of principals in inner-city schools is the same as those in upper-class non-violent schools and there many of their pupils are drawn from ‘failed’ primary schools; yet the same yardstick is used to evaluate them and those of students taken from affluent family. The reality is, principals from inner-city environments are given the same time line like those in middle-to-affluent communities, allocated the same and sometimes less resources and society expects the same output from those groups.
CONCLUSION

The failure of many schools and their principals is based on the time allotted to security management, corrective measures and social deviance among their students (Batche and Knoff, 1994), and that we need to examine principalship and instructional leadership in non-traditional high schools in lower St. Andrew and Kingston. Many of the schools in this study are labelled ‘Failed schools’ with students drawn substantially from inner-city communities across different socio-political areas in Jamaica in which crime is a problem and victimization is widespread. The crime and punishment (Becker, 1968; Levy, 1996) phenomena are well known by many students who dwell in inner-city communities, and the price of speaking out on criminality.

Another reality among those students is how disputes and disagreements are settled – violence and reprisals. Within the aforementioned context, principals of schools in the study are felt with no alternative to spend a proportion of their time on security management, corrective measures and social deviance.

RECOMMENDATIONS

A number of recommendations emerged as a result of the current findings. These recommendations were classified into two sub-headings – 1) for principals and 2) for Ministry of Education and Finance.

FOR PRINCIPALS

i. Allocate not less than one-quarter of their time on instructional leadership (or supervision);

ii. Institute security measures that involved various stakeholders including 1) Ministry of Education, 2) Ministry of Justice, 3) Police, 4) Civil groups, 5) teachers, and 6) parents.

iii. Allot a percentage of the school’s week to counselling, religious activities, mediation, social dynamics and group behaviour, and conflict resolution;

iv. Institute a mentorship programme with various influential stakeholders;

v. Have a programme where incentives are awarded for 1) academic excellence, 2) social skills, 3) social graces, 4) group behaviour, and 5) leadership. The positive incentive can include any of the following money, clothing, vacation, groceries, cooked meals and drink, and write up in the newspaper (Gleaner and/or Observer);

vi. Institute a suggestion box on how to address performance and social deviance, and this will be operated by students;

vii. Set up a teacher committee that is primarily responsible for instructional leadership appraisal, evaluation and suggestions. The committee will make recommendations on strengths, weaknesses and best practices for the principal to institute and follow;

FOR MINISTRY OF EDUCATION, AND MINISTRY OF FINANCE

i. Have a permanent Jamaica Defence Force (JDF) outpost on the compound of all inner-city schools;

ii. Assess principals on their instructional leadership (or supervisory practices), rectify weakness, outline strengths, offer recommendations on best practices, and recommend the terminate of service of principals who are not concerned about instructional supervision;

iii. Allocate security personnel to work in schools and these individuals only report to Ministry of Education personnel;

iv. Provide more financial resources as well as non-financial resources to all inner-city
educational institutions including upgrading equipment, machines and plants

REFERENCES


[104]. Rashid, Md Z.A., Sambasivan, M., and Rahman, A.A. The influence of organizational culture on attitudes toward organizational change. The


APPENDIX

SCHOOL PERSONNEL’S QUESTIONNAIRE

INSTRUCTIONS

This survey is in partial fulfilment of a Master of Science in Educational Administration at the University of the West Indies, Mona Campus. Please read each question carefully and indicate your response by placing a check mark or writing your answer in the space provided. In order to maintain confidentiality, no marker or name should be placed on the paper that can be used to identify you. If at any time in the process you feel uncomfortable, you may withdraw, not answer a question and/or return the instrument.

SECTION ONE: Demographic data

1. What is your age at last birthday?______________________________

2. What is your gender” [ ] Male [ ] Female

3. How long have you been employed to this institution?_______________

4. How long have you been teaching? ________________________________

5. School Type:
   - Traditional High School [ ]
   - Newly Upgraded High School [ ]
   - Technical High [ ]

   Highest Academic Achievement:
   - [ ] College Trained Certificate
   - [ ] Pre-trained Graduate
   - [ ] College Trained Diploma, [ ] Trained Graduate
   - [ ] Other (Specify)

6. How many years have you been working with the current principal? ___

7. On average, how many times do you attend church per month? _______

8. What best represents your current social class?
   - Lower (working) class [ ]
   - Lower-Middle class [ ]
   - Middle-Middle class [ ]
   - Upper-Middle class [ ]
   - Upper class [ ]
SECTION TWO: Instructional Items 1

**Complete questions by putting an ‘X’ at the responses that most suitably reflect your position**

A AGREE; SA STRONGLY AGREE; U UNDECIDED; SD STRONGLY DISAGREE, AND D DISAGREE

<table>
<thead>
<tr>
<th>A</th>
<th>What are the instructional supervisory practices that principals involve his/her teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(1)</td>
<td><strong>Professional Development</strong></td>
</tr>
<tr>
<td></td>
<td>Draw on teachers “expertise to assist weak teachers through peer monitoring.</td>
</tr>
<tr>
<td></td>
<td>Ask teachers to identify professional development workshops and seminars.</td>
</tr>
<tr>
<td></td>
<td>Coordinate professional development with school goals and mission.</td>
</tr>
<tr>
<td></td>
<td>Ensure that teachers are trained to use instructional strategies which link content with previous lessons and experiences.</td>
</tr>
<tr>
<td>A(2)</td>
<td><strong>Curriculum Development</strong></td>
</tr>
<tr>
<td></td>
<td>There is revision and modification of content for curricula.</td>
</tr>
<tr>
<td></td>
<td>The Principal works with staff to develop programmes in the school.</td>
</tr>
<tr>
<td></td>
<td>The Principal effectively supervise and integrate all curricula taught in the school with the national curriculum.</td>
</tr>
<tr>
<td></td>
<td>The Principal is knowledgeable about what is being taught in each subject area</td>
</tr>
<tr>
<td>A(3)</td>
<td><strong>Action Research</strong></td>
</tr>
<tr>
<td></td>
<td>The Principal encourages differentiated instruction</td>
</tr>
<tr>
<td></td>
<td>Encourages teachers to use assessment records to identify strengths and weaknesses to provide appropriate instructional intervention.</td>
</tr>
<tr>
<td></td>
<td>Encourages teachers to identify causes of inappropriate behaviours in the classrooms and then employ appropriate corrective measures.</td>
</tr>
<tr>
<td></td>
<td>Encourages teachers to analyze the strengths and weaknesses of their instructional practices in order to improve their teaching effectiveness.</td>
</tr>
<tr>
<td>A(4)</td>
<td><strong>Interpersonal Development</strong></td>
</tr>
<tr>
<td></td>
<td>Rate the Principal involvement in the following:</td>
</tr>
<tr>
<td></td>
<td>Encourages team teaching</td>
</tr>
<tr>
<td></td>
<td>Regular staff meetings</td>
</tr>
<tr>
<td></td>
<td>Holds pre and post conferences with teachers to provide feedback.</td>
</tr>
<tr>
<td></td>
<td>Has good communication skills</td>
</tr>
<tr>
<td></td>
<td>Principal’s involvement in the supervision of the instructional supervision practices</td>
</tr>
<tr>
<td></td>
<td>Principal visits teachers when classes are in session</td>
</tr>
<tr>
<td></td>
<td>Principal provides feedback on his/her observation</td>
</tr>
<tr>
<td></td>
<td>Principal share information related to teaching with teachers</td>
</tr>
<tr>
<td></td>
<td>Principal has meetings with teachers regarding instructional supervision</td>
</tr>
<tr>
<td></td>
<td>Principal makes time to interact with teachers</td>
</tr>
</tbody>
</table>
Principal plans seminar to help teachers to improve their instruction

**Effectiveness of the instructional supervisory practices**

The school has a positive school climate.

Morale among teachers at the school is high.

Students' achievement is high.

There is a strong relationship between stakeholders of the school.

There is effective management at the school.

**Principal's supervisory practices**

Provide feedback on a timely manner

There is follow up on weak appraisals

Give suggestions for improvement of performances to teachers

Appraisal is regarded as a chore and not a necessary tool

---

**SECTION Three: Instructional Items 2**

**Complete questions by putting an 'X' at the responses that most suitably reflect your position**

Please use the following scales in your validation:

<table>
<thead>
<tr>
<th>Importance of the item</th>
<th>Clarity of the item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Not Important</td>
<td>1 = Unclear</td>
</tr>
<tr>
<td>2 = Uncertain</td>
<td>2 = Uncertain</td>
</tr>
<tr>
<td>3 = Important</td>
<td>3 = Clear</td>
</tr>
<tr>
<td>4 = Very Important</td>
<td></td>
</tr>
</tbody>
</table>

**Importance**

1. Leads school in a way that puts student and adult learning at the center. The principal serves as lead learner and teacher.

2. Promotes the academic success of all students by setting high expectations, high standards and organizing the school environment around school achievement.

3. Creates and demands rigorous content and instruction that ensures student progress toward agreed-upon academic standards.

4. Creates a climate of continuous learning for adults that is tied to student learning.

5. Uses multiple sources of data as a diagnostic tool to assess, identify, and apply instructional improvement.

6. Actively engages the community to create shared responsibility for student and school success.

---

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SECTION FOUR: Instructional Items 3

Complete questions by putting an 'X' at the responses that most suitably reflect your position

**Instructional Leadership Scoring Scale**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The principal leads the school in a way that puts student and adult learning at the center. The principal serves as lead learner and teacher.</td>
<td>Very</td>
<td>Unclear</td>
<td>Unable</td>
<td>Clear</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The principal organizes the school environment around student achievement and promotes the academic success of all students by setting high expectations and high standards.</td>
<td>Very</td>
<td>Unclear</td>
<td>Unable</td>
<td>Clear</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The principal creates and demands instruction that ensures student progress toward agreed-upon academic standards.</td>
<td>Very</td>
<td>Unclear</td>
<td>Unable</td>
<td>Clear</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The principal creates a climate of continuous learning for adults that is designed to enhance student learning.</td>
<td>Very</td>
<td>Unclear</td>
<td>Unable</td>
<td>Clear</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The principal uses multiple sources of data to assess, identify, and apply instructional improvement.</td>
<td>Very</td>
<td>Unclear</td>
<td>Unable</td>
<td>Clear</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Actively engages the community to create shared responsibility for student and school success.</td>
<td>Very</td>
<td>Unclear</td>
<td>Unable</td>
<td>Clear</td>
</tr>
</tbody>
</table>
Table 3. Descriptive statistics of the indexes and sum-items

<table>
<thead>
<tr>
<th></th>
<th>Copeland Leadership Index</th>
<th>Copeland Leadership and its influence On performance</th>
<th>Profession Development Index</th>
<th>Curriculum Development Index</th>
<th>Action Research Index</th>
<th>Interpersonal Involvement</th>
<th>Principal Involvement</th>
<th>Effectiveness</th>
<th>Supervisory</th>
<th>Overall Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>57</td>
<td>52</td>
<td>71</td>
<td>71</td>
<td>71</td>
<td>70</td>
<td>70</td>
<td>69</td>
<td>69</td>
<td>71</td>
</tr>
<tr>
<td>Missing</td>
<td>16</td>
<td>21</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Mean</td>
<td>16.3</td>
<td>19.7</td>
<td>8.0</td>
<td>6.9</td>
<td>9.1</td>
<td>8.4</td>
<td>11.4</td>
<td>7.0</td>
<td>6.1</td>
<td>56.2</td>
</tr>
<tr>
<td>Median</td>
<td>18.0</td>
<td>20.5</td>
<td>8.0</td>
<td>6.0</td>
<td>9.0</td>
<td>9.0</td>
<td>12.0</td>
<td>7.0</td>
<td>6.0</td>
<td>56.0</td>
</tr>
<tr>
<td>Mode</td>
<td>21.0</td>
<td>24.0</td>
<td>6.0</td>
<td>6.0</td>
<td>12.0</td>
<td>9.0</td>
<td>12.0</td>
<td>5.0</td>
<td>3.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>5.9</td>
<td>7.1</td>
<td>4.2</td>
<td>3.7</td>
<td>4.0</td>
<td>3.9</td>
<td>5.8</td>
<td>3.8</td>
<td>3.5</td>
<td>21.2</td>
</tr>
<tr>
<td>Skewness</td>
<td>-.7</td>
<td>-.8</td>
<td>.01</td>
<td>.4</td>
<td>-.3</td>
<td>-.3</td>
<td>.04</td>
<td>.9</td>
<td>.5</td>
<td>.3</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.3</td>
<td>.3</td>
<td>.3</td>
<td>.3</td>
<td>.3</td>
<td>.3</td>
<td>.3</td>
<td>.3</td>
<td>.3</td>
<td>.3</td>
</tr>
<tr>
<td>Range</td>
<td>22.0</td>
<td>29.0</td>
<td>16.0</td>
<td>16.0</td>
<td>16.0</td>
<td>16.0</td>
<td>24.0</td>
<td>20.0</td>
<td>15.0</td>
<td>103.0</td>
</tr>
<tr>
<td>Minimum</td>
<td>2.0</td>
<td>1.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.0</td>
</tr>
<tr>
<td>Maximum</td>
<td>24.0</td>
<td>30.0</td>
<td>16.0</td>
<td>16.0</td>
<td>16.0</td>
<td>16.0</td>
<td>24.0</td>
<td>20.0</td>
<td>15.0</td>
<td>107.0</td>
</tr>
</tbody>
</table>

a. Multiple modes exist. The smallest value is shown

Table 6. Bivariate correlations Copeland’s Indexes and Instructional cultured supervision index

<table>
<thead>
<tr>
<th></th>
<th>Copeland_instructional_leader_index</th>
<th>Copeland_instructional_leadership_studentindex</th>
<th>Overall_Instructional_Cultural supervision_index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copeland_instructional_leader_index</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copeland_instructional_leader_studentindex</td>
<td>Pearson Correlation</td>
<td>0.173</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.224</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall_Instructional_Cultural_supervision_index</td>
<td>Pearson Correlation</td>
<td>Sig. (2-tailed)</td>
<td>N</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------------------</td>
<td>-----------------</td>
<td>---</td>
</tr>
<tr>
<td>N</td>
<td>51</td>
<td>52</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>57</td>
<td>52</td>
<td>71</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).

### Table 7. Ordinary least square (OLS) regression of instructional cultured supervisory index and particular variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>P value</th>
<th>95.0% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>11.276</td>
<td>27.225</td>
<td>0.414</td>
<td>0.682</td>
<td>0.043</td>
<td>-44.250, 66.803</td>
</tr>
<tr>
<td>Age</td>
<td>0.325</td>
<td>0.790</td>
<td>0.125</td>
<td>0.411</td>
<td>0.684</td>
<td>-1.286, 1.936</td>
</tr>
<tr>
<td>Length of employment</td>
<td>-0.810</td>
<td>0.899</td>
<td>-0.278</td>
<td>-0.901</td>
<td>0.374</td>
<td>-2.642, 1.023</td>
</tr>
<tr>
<td>Length of time teaching</td>
<td>0.344</td>
<td>0.774</td>
<td>0.117</td>
<td>0.445</td>
<td>0.660</td>
<td>-1.162, 1.923</td>
</tr>
<tr>
<td>Length of time working with current principal</td>
<td>-1.799</td>
<td>1.548</td>
<td>-0.207</td>
<td>-1.162</td>
<td>0.254</td>
<td>-4.957, 1.359</td>
</tr>
<tr>
<td>Religiosity</td>
<td>2.329</td>
<td>0.890</td>
<td>0.378</td>
<td>2.617</td>
<td>0.014</td>
<td>0.514, 4.144</td>
</tr>
<tr>
<td>Copeland – ILI</td>
<td>1.041</td>
<td>0.652</td>
<td>0.241</td>
<td>1.598</td>
<td>0.120</td>
<td>-0.045, 2.371</td>
</tr>
<tr>
<td>Copeland – ILI influence performance</td>
<td>0.549</td>
<td>0.494</td>
<td>0.169</td>
<td>1.111</td>
<td>0.275</td>
<td>-0.459, 1.557</td>
</tr>
<tr>
<td>Gender (1=Male)</td>
<td>3.006</td>
<td>7.135</td>
<td>0.065</td>
<td>0.421</td>
<td>0.676</td>
<td>-11.545, 17.558</td>
</tr>
<tr>
<td>Certificate and Diploma</td>
<td>-0.348</td>
<td>7.767</td>
<td>-0.007</td>
<td>-0.045</td>
<td>0.965</td>
<td>-16.188, 15.492</td>
</tr>
<tr>
<td>Lower-Middle class</td>
<td>7.041</td>
<td>9.811</td>
<td>0.151</td>
<td>0.718</td>
<td>0.478</td>
<td>-12.969, 27.051</td>
</tr>
<tr>
<td>Middle-Middle and beyond class</td>
<td>15.790</td>
<td>8.959</td>
<td>0.347</td>
<td>1.762</td>
<td>0.088</td>
<td>-2.482, 34.063</td>
</tr>
</tbody>
</table>

Model $R^2 = 0.447$

F statistic $[11, 31] = 2.213, P = 0.041$

Durbin Watson test = 2.01
Table 8. Ordinary least square (OLS) regression of Copeland’ instructional leadership index and particular variables

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>P value</th>
<th>95.0% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>15.451</td>
<td>6.678</td>
<td></td>
<td>.027</td>
<td>1.831 to 29.070</td>
</tr>
<tr>
<td>Age</td>
<td>-.143</td>
<td>.208</td>
<td>-.238</td>
<td>.496</td>
<td>-.568 to .281</td>
</tr>
<tr>
<td>Length of employment</td>
<td>.183</td>
<td>.239</td>
<td>.271</td>
<td>.450</td>
<td>-.304 to .670</td>
</tr>
<tr>
<td>Length of time teaching</td>
<td>-.019</td>
<td>.206</td>
<td>-.027</td>
<td>.929</td>
<td>-.438 to .401</td>
</tr>
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<td>Length of time working with principal</td>
<td>-.397</td>
<td>.413</td>
<td>-.198</td>
<td>.343</td>
<td>-.1239 to .445</td>
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<td>Religiosity</td>
<td>-.105</td>
<td>.260</td>
<td>-.073</td>
<td>.689</td>
<td>-.635 to .425</td>
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<td>Copeland_instructional_leadership_studentindex</td>
<td>.115</td>
<td>.132</td>
<td>.154</td>
<td>.389</td>
<td>-.154 to .384</td>
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<tr>
<td>Gender (1=male)</td>
<td>-2.095</td>
<td>1.858</td>
<td>-.196</td>
<td>.268</td>
<td>-5.884 to 1.693</td>
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<tr>
<td>Certificate and Diploma</td>
<td>2.000</td>
<td>2.026</td>
<td>.185</td>
<td>.331</td>
<td>-2.132 to 6.131</td>
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<td>Lower-Middle class</td>
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<td>2.584</td>
<td>.225</td>
<td>.353</td>
<td>-2.832 to 7.707</td>
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<td>Middle-Middle and beyond class</td>
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<td>2.489</td>
<td>-.013</td>
<td>.957</td>
<td>-5.211 to 4.942</td>
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<td>.073</td>
<td>.046</td>
<td>.316</td>
<td>.120</td>
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