

Measuring Inviting School Climate: A Case Study of a Public Primary School in an Urban Low Socioeconomic Setting in Kenya

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Abstract

The present study utilized the Inviting School Survey-Revised (ISS-R) (Smith, 2005b, 2013) based on Invitational Theory and Practice (Purkey & Novak, 2008) to examine the school climate of a public primary school in a low urban socio-economic setting in Kenya. School climate was defined as the perceptions of primary school teachers and pupils in five areas: People, Places, Processes, Policies, and Programs, based on the Invitational theory and Practice paradigm. Results showed that the overall school climate of Rduce primary school was inviting in many areas. The current study revealed that in spite of the challenges facing a public school in an urban low socio-economic setting, it is possible with inviting policies, programs, processes, and people, to realize positive academic achievement with students.

Scholars and researchers commonly understand that environmental factors have a profound influence on academic performance (Noguera, 2003). Student academic performance is directly influenced by socio-economic, psychological, and environmental factors (Oduol, 2006). Although educators cannot change a student's socioeconomic standing, genetic predispositions, or ability level, changes in the school environment can improve a student's chances for academic success (Lehr, 2004). Therefore, with a positive school climate, children from economically depressed urban areas have a chance to get quality education and realize high academic achievement (McEvoy & Welker, 2000).

A positive school climate is an important component of successful and effective schools and thus is often an aim of school wide initiatives (Griffith, 2000; Koth, Bradshaw, & Leaf, 2008; Lehr, 2004). It makes a school a place where both staff and students want to spend a substantial portion of their time; it is a good place to be (Lehr, 2004; Novak, Rocca, & DiBiase, 2006). Growing evidence suggests that school climate can affect students' social environment, their behavior, learning, and that by addressing organizational processes and social relationships; positive behavioral change can occur (Flay, 2000; Zullig, Koopman, Patton, & Ubbes, 2010). Improving school climate is considered a preventative approach, rather than a reactive or remedial one. A positive school climate has been associated with fewer behavioral and emotional problems for students (Lehr, 2004; Marshall, 2004).

However, the nature of schools and the significance of its climate in disadvantaged urban settings is not well

understood, there is considerable evidence that the socioeconomic backgrounds of students in these schools have a bearing on how they are perceived and treated by the adults who work with them in disadvantaged urban schools.

What is School Climate?

School climate includes the interactions between students' and teachers' perception of their school environment (e.g. environmental factors such as the physical buildings and classrooms, materials used for instruction); academic performance; feelings of safety (Mayer, 2007), and school community of feelings of trust and respect (Purkey & Novak, 2008; Smith, 2013; Kuperminca, Leadbeatera, & Blatta, 2001; Marshall, 2004). Cohen, McCabe, Michelli, and Pickeral (2009) argued that school climate refers to the quality and character of school life and is based on patterns of people's experiences of school life and reflects norms, goals, values, (McEvoy & Welker, 2000; Zullig et al., 2010) interpersonal relationships, teaching and learning practices, and organizational structures shown to relate to social situations within classrooms and to the school as a whole.

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Koth et al., (2008) further stated that school climate is influenced by educational and social values, and has been Generally, school climate is multi-dimensional and influences many individuals, including students, parents, school personnel, and the community (Marshall, 2004). In the current study school climate refers to the perceptions of Grade 8 pupils and teachers on their school's people, process, policies, programs, and place.

A positive school climate exists when everybody involved with the school community feels comfortable, wanted, valued, accepted, and secure in an environment where they can interact with caring people they trust (Mayer, 2007). Schools with a positive atmosphere encourage and welcome the participation of teachers, students and parents, which in turn make the school successful (American School Counselor Association (ASCA), 2003; Koth et al., 2008). Research has consistently shown a link between positive school climate and other important measurements of school success such as academic achievement (Noguera, 2003), effective classroom management (Marshall, 2004), and high staff morale (Mayer, 2007). Furthermore, researchers have found that positive school climate perceptions are protective factors for boys, and may supply high-risk students with a supportive learning environment yielding healthy development, as well as preventing antisocial behavior (Kuperminca et al., 2001; McEvoy & Welker, 2000). Frieberg (1998, p. 22) asserts, "School climate can be a positive influence on the health of the learning environment or a significant barrier to learning".

Invitational Theory and Practice

Purkey argued that when the school climate is positive it becomes inviting (Novak et al., 2006; Purkey & Novak, 2008). Purkey and Novak (2008) postulated that schools should be made inviting to the local community to an extent that pupils, teachers, and parents feel welcome. Creating an inviting school require that students, families, and educators work together to develop, live, and contribute to a shared school vision (Cohen et al., 2009; Novak et al., 2006) where each person contributes to the operations of the school and the care of the physical environment. A safe and welcoming school helps children to embrace education enthusiastically, increase student ownership, and better work habits for adults (Mayer, 2007). An inviting or welcoming school leads to fewer acts of aggression, less vandalism and less absenteeism by students. According to Purkey and Novak (2008), schools must provide a warm, caring environment for students to learn and prosper.

The present study is based on the principles of Invitational Theory and Practice (ITP) (Purkey & Novak, 1996; Purkey & Schmidt, 1987, 1990, 1996; Purkey & Stanley, 1991).

In particular, ITP 5 "P's" was used to investigate the school climate of a public primary school in a low urban socio-economic setting in Kenya. ITP provides a model for educative and counseling practice to promote people to realize their potential in all areas of worthwhile endeavors. It is a democratically oriented, perceptually anchored, self-concept approach to the educative and counseling process (Novak et al., 2006; Purkey & Novak, 2008; Purkey & Schmidt, 1996; Smith, 2013). It focuses on five domains that can support or hinder an individual's successes or failures; people, places, policies, programs, and processes (5 "Ps") (Smith, 2005a).

People

In a study carried out by Zullig et al. (2010), they concluded that the idea of "school" is not strictly a building but rather a setting or place of education that includes the people who go there and that all of these interact with one another to affect learning. School climate research suggests that positive interpersonal relationships and optimal learning opportunities for students in all demographic environments can increase achievement levels and reduce maladaptive behavior (McEvoy & Welker, 2000). Although all parts of a school are vital to its operation, from the standpoint of the invitational model, People (teachers, other school staff, and the students themselves) are the most important part (Purkey & Novak, 2008; Smith, 2013). People create and maintain the invitational climate (Marshall, 2004). It is important in a school to know how people who are significant in the lives of the students are contributing to or detracting from human existence and development. Zullig et al. (2010) states that the greatest indicator of achievement was the way students felt within themselves about the social environment within the school. The model of ITP requires unconditional respect for people --- the extent that respect is manifested in the school environment, the caring and appropriate behaviors that people exhibit toward themselves and others (Purkey & Novak, 2008).

Places

When seeking to change an environment, the most obvious place to begin is the physical setting --- any part of a school's physical environment that is unpleasant, unattractive, littered, grimy, dusty, or dingy is disinviting. According to the Healthy People 2010 Report (U.S. Department of Health and Human Services, 2000) a healthy school environment refers to the physical environment of the school such as school indoor air quality, pest and chemical management, ventilation, mold, and moisture issues that may inhibit learning through increased risks to the health of school children and staff. The aspects used for "place" in the current

study include availability and arrangement of chair/desks, air, school grounds/compound, rest rooms/toilets, head teacher's office, bulletin/notice boards, safety measures, water points, and lighting.

Processes

Process is systematic series of actions directed to some end and as such represents not only content but also context. Process indicates how the school is operating, how the people are acting, rather than what is being undertaken. Bernhardt (2012) defines school processes as what learning organizations, and those who work in them, are doing to help students learn: what they teach, how they teach, and how they assess students. She states that the school processes include programs, curriculum, instruction and assessment strategies, interventions, and all other classroom practices that teachers use to help students learn. The assignment of grades, response to telephone calls, punctuality, how people feel about their reception by school, involvement in decision making, attendance and promptness of beginning classes are the school processes considered in the current study.

Policies

The places people create are closely related to the policies they establish and maintain (Smith, 2013). Policies refer to guidelines, rules, procedures, codes, directives and so forth that regulate the ongoing functions of the school and they reflect community norms and expectations (Flay, 2000). Purkey and Novak (2008) argue that it is not the policy itself as much as what the policy communicates that is vital to the invitational model (i.e., trust or distrust, respect or disrespect, optimism or pessimism, intentionality or unintentionality). School policy should reflect the shared expectations of the whole school community and that all students and parents are clear about these shared expectations. In addition, according to the invitational model, policies reveal the perceptual orientations of the policy-makers. The current study captures the aspect of school policy, such as the willingness of teachers to help pupils with special problems; pupils having an opportunity to talk to one another during class activities; freedom of expression; the nature of messages and notes sent home; academic achievement and the grading practices of the school.

Programs

As in the other domains, programs can be helpful or harmful to individuals and groups (Smith, 2013). Some programs are not inviting because they focus on narrow goals and neglect the wider scope of human concerns (e.g. tracking or labeling students --- people are not labels, and programs that label individuals as different can have negative effects).

Measuring School Climate

The current study, using the ISS-R, (Smith, 2013) assesses the inviting nature of some selected school programs that could be delineated to enhance the personal and professional growth and development of all the people in schools. The identified programs include: games/sports/athletic, health/wellness, clubs/societies/co-curricular (wildlife, scouting, etc.), mini- courses (First Aids, peer counseling, etc.), health and wellness program, academic, educational tours and excursions. Many researchers have developed measures of school climate, but the challenge in addressing school climate continues to be its measurement, in terms of both what and how to measure it. Acknowledging the complexity of what defines and composes school climate, Zullig et al. (2010) argued that there appear to be common domains measured over time. A review of the literature (Cohen et al., 2009; Freiberg, 1998) reveals at least five important school climate areas: order, safety, and discipline (Furlong et al., 2005; Griffith, 2000; McNeely, Nonnemaker, & Blum, 2002; Wilson, 2004); academic outcomes (Griffith, 2000; Worrell, 2000); social relationships (Furlong et al., 2005; Griffith, 2000; Wilson, 2004); school facilities (Wilson, 2004); and school connectedness (Catalano, Oesterle, Fleming, & Hawkins, 2004; McNeely et al., 2002; Whitlock, 2006).

Commonly examined school-level predictors of school climate include structural aspects of the school, such as school size (Griffith, 2000; McNeely et al., 2002), student-teacher ratio and student mobility (Griffith, 2000); aggregated indicators of student characteristics (e.g., socioeconomic status and ethnicity; McNeely et al., 2002; Vieno, Tuhkanen, & Kronberg, 2005) and school type (public vs. private or urban vs. rural) (Vieno et al., 2005) have also been linked with perceptions of school climate. Examining these measures and the attributes specifically assessed provides further detail into the nature of school climate (Marshall, 2004). Nevertheless, most measurement of the social and emotional aspects of school climate lack sound psychometrically measures (Zullig et al., 2010).

The School Climate Survey contains seven dimensions of school climate and specifically assesses students' perceptions in the following areas: achievement motivation, fairness, order and discipline, parent involvement, sharing of resources, student interpersonal relationships and student-teacher relationships (Haynes, Emmons, & Comer, 1993). The Charles F. Kettering Ltd. (CFK) School Climate Profile (Johnson, Johnson, Kranch, & Zimmerman, 1999) is also widely used to measure school climate. It comprises eight subscales: respect, trust, high morale, opportunity for input,

continuous academic and social growth, cohesiveness, school renewal, and caring. Additional measures include the Comprehensive Assessment of School Environments (Keefe & Kelley, 1990), the Organizational Climate Index (Hoy, Smith, & Sweetland, 2002), and the Organizational Climate Description Questionnaire (Halpin & Croft, (1963).

The current study utilized the Inviting School Survey-Revised (ISS-R) (Smith, 2013) designed to assess the invitational qualities of the total school climate and the five environmental areas (Purkey & Novak, 2008; Smith, 2005a, 2013).

The Raduce Primary School Environment

Raduce (a pseudonym used instead of the real name of the school) is a public primary school located in an area locally called the Kibera Slum. This area, which is the largest slum in sub-Saharan Africa, is located near Nairobi, the capital of Kenya (Integrated Regional Information Networks (IRIN), 2011; Karanja & Makau, 2009; Tooley, 2007). It has a population of 529 pupils (from nursery to grade 8) and 18 teachers. The school is situated within the slum, next to a railway line and surrounded by makeshift houses. Several sewerage drains flow near the school, carrying domestic and human waste that produces a foul smell. A teacher lamented that:

“The location of the school is not good in terms of sewage; the “mabati” (iron sheets) structures in the school are not safe for young children.” A pupil stated, “When it rains, there is a sewage tunnel passing through our school, spills and releases the sewage to the ground making pupils sick and have diarrhea.”

Generally, the school has limited facilities as captured by teachers’ comments:

“School has limited facilities e.g. classrooms, washrooms, etc., the community should be educated so that they can support or give hand to help pupils with supplements even though the government is trying but this is not the required standards, the infrastructure needs to be constructed since it degrades and interferes with school performance.”

“In our school (Raduce) there are many disturbances when lessons are in progress since we have a railway line near the school such that when the train passes it make noise and also pollutes the air.”

Ninety-eight percent of the grade 8 pupils in this school reside in Kibera slum that is frequently hit by disasters such as fire and other accidents due to its closeness to the railway line and other hazards (Kweyu & Otieno, 2012). Mutiga (2012) postulated that Kenyan slums are probably the worst in East Africa, but more crowded and more unsanitary than slums in Bangladesh. Mutambo (2012) gave an example of a family of seven living in “a tiny dark room no more than three metres by three metres” in this slum.

The majority (79.3%) of the residents of Kibera slum are poor families whose monthly income is less than KES 10,000 (US\$ 116) who are engaged in either casual work or lower cadre civil/public service or small micro-enterprises (Muraya, 2011). Residents of Kibera are confronted daily with overcrowding, poor infrastructure, gender disparities, poor sanitation, unsafe drinking water, many community disadvantages. As can be determined the location of the school is unhealthy, unsafe, and unsuitable for learning.

Despite these challenges, the performance of grade 8 pupils in the national Kenya Certificate of Primary Education (KCPE) examinations - rose from an overall mean mark of 217.9 in 2005 to 253.7 in 2011. The KCPE examination is administered nationally at the end of the eighth year of primary schooling and marked out of a maximum mark of 500 and determines students’ placement in secondary schools. Candidates sit for five papers namely English, Kiswahili, Social Studies, Science and Mathematics. Considering the challenges associated with urban low socio-economic setting, a positive trend in the performance of pupils from a slum in a national examination is of great interest to scholars and researchers.

Methodology

Participants for the present study were 58 grade 8 pupils (32 boys and 26 girls aged between 13 and 15) and eleven teachers (4 males and 7 females). This represented a return rate of 84% and 61% of ISS-R questionnaires for pupils and teachers respectively.

The study adopted a mixed method approach where both quantitative and qualitative data were collected through ISS-R Questionnaires. Participants responded to 50 items on a five point Likert scale ranging from “Strongly Disagree” to “Strongly Agree” (“N/A” if a question is not applicable to the participant’s context). The items addressed each of the five factors: People, Places, Processes, Policies, and Programs. Preliminary descriptive quantitative analyses were conducted using IBM SPSS, version 19 (IBM, 2010) while qualitative analysis of open-ended question was undertaken with QSR International’s NVivo 10 qualitative data analysis software (QSR, 2012).

Results

In the current study, the aspects of school climate were considered “most inviting” if the scores are equal to or more than 85%; “somewhat inviting” between 60-85%; “disinviting” between 50 – 60% and “most disinviting” when the score is less than 50%.

Total ISS-R

As shown in Figure 1, the ISS-R Total score was approximately 72.57%. Subscales ranged from 47.77% (Place) to 84.47% (Policies) as shown in Table 1 and Figure 1 below.

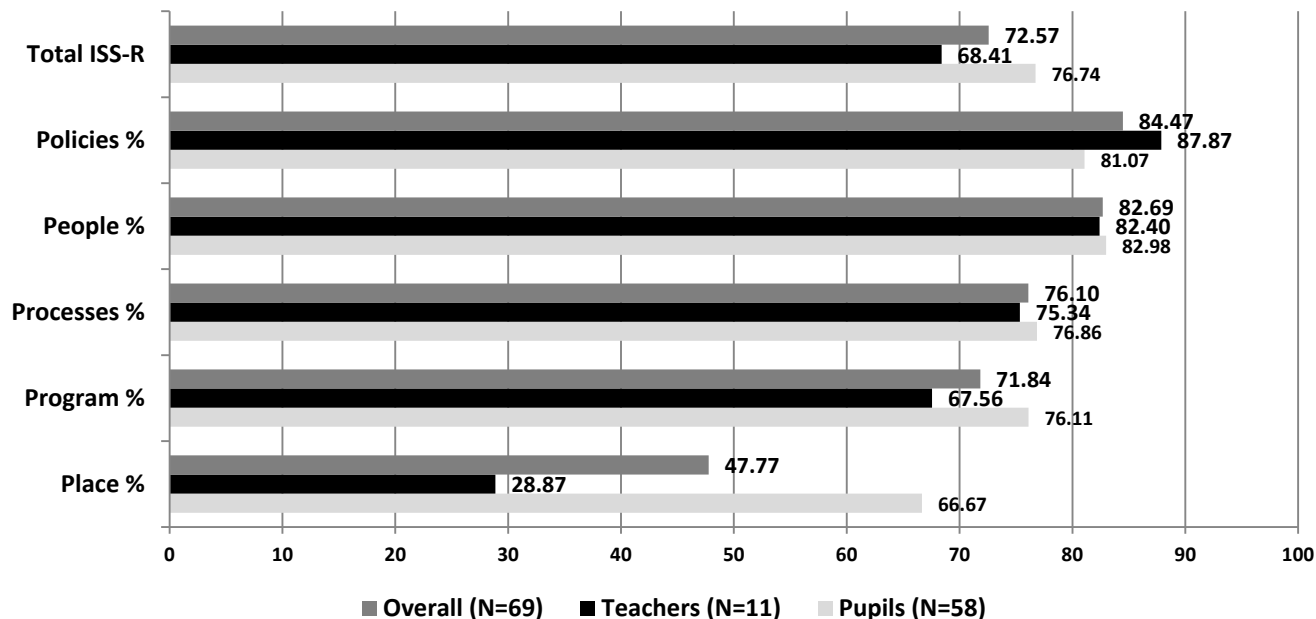


Figure 1. Total score (Medium Grey Bar; N=69); teachers (Black Bar; N=11) and pupils (Light Grey Bar; N=58) mean percentages for ISS-R subscales and total score.

The school “policies” and “people” had overall scores of 84.47% and 82.69% respectively which indicated that both respondents’ perceptions were favorable and therefore most inviting. While the aspects of school “processes” and “program” had an overall scores of 76.10% and 71.84% respectively, which shows that the perceptions of the respondents were somehow favorable and therefore fairly inviting. However, the overall score (47.77%) for the school “place” or physical environment showed that the perceptions of most pupils and teachers were not favorable and hence the aspect was least inviting or the most disinviting aspect of the school.

People

As shown in Figure 2 most teachers felt that they are caring (item 9, 12, 24, 30 & 45), trustful (item 15 & 18), and

respectful (item 6). Slightly more than half of them felt that the people in the school are polite to one another (item 21), want to there (item 33), the pupils are proud of their school (item 42), while the head teacher involves everyone in the decision-making process (item 3). Some of them (teachers) spend time after school with those who need extra help (item 48) or appear to enjoy life (item 39). However, only a few thought that the head teacher treated people as though they are responsible (item 27). According to most pupils’ their teachers are caring, trustworthy and respectful; the people in the school are polite to one another and want to be there; pupils are proud of their school. Their head teacher involves everyone in the decision-making process and treats people as though they are responsible.

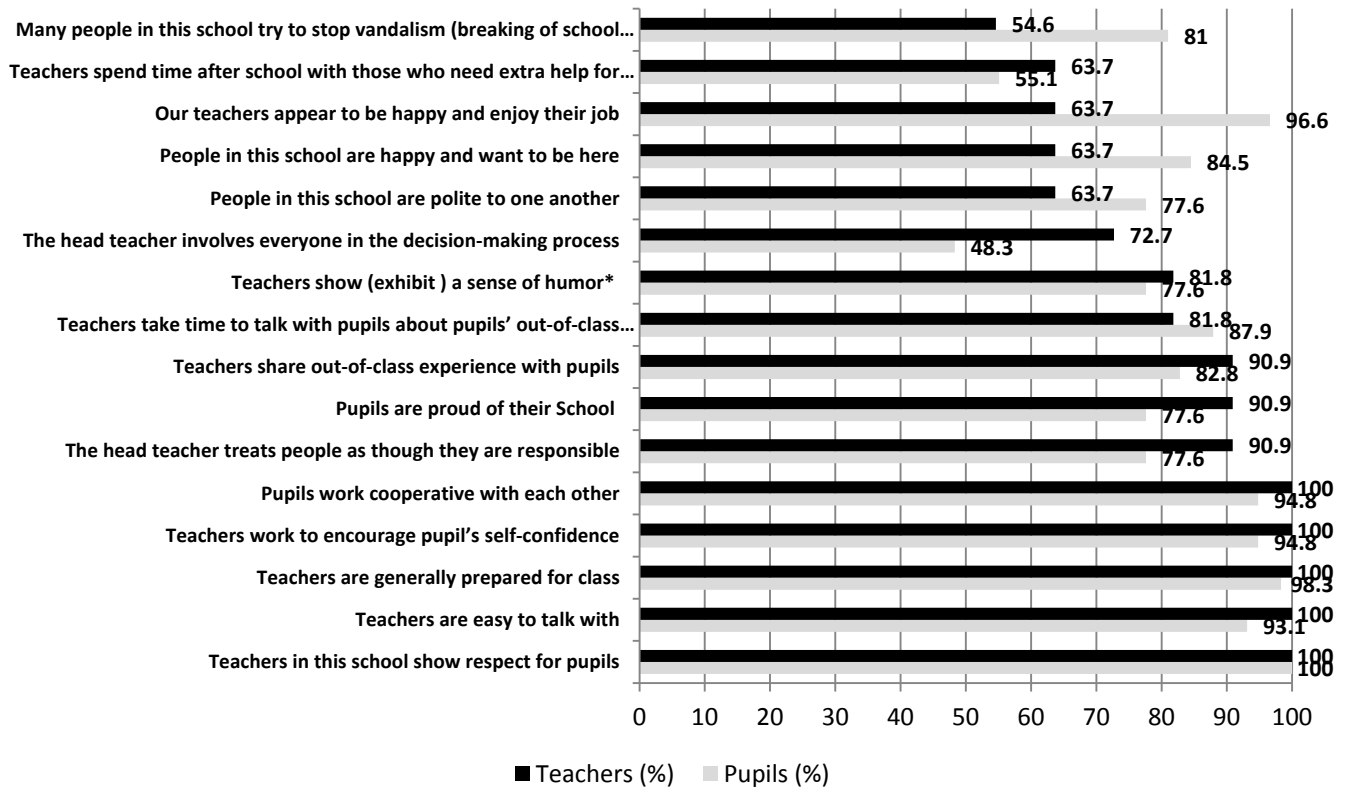


Figure 2. Percentage (%) of pupils and teachers who **Strongly Agree** and **Agree** on statements about **People**.

Place

As shown in Figure 3 perception of most pupils is that their desks are pleasant and comfortable (item 4) and offers a variety of arrangement (item 37); the air smells fresh in the school (item 8); the head teacher’s office is attractive (item 20); the school compound is clean and well-maintained (item 13). Slightly more than half of them felt that the toilets in the

school are clean and properly maintained (item 16); there is space available for their independent study (item 28); water taps are in good repair (item 40) and that there comfortable chairs for visitors (item 44). However the perception of most of them was negative on notice boards being attractive and up-to-date (item 25), and on the posting of safety measures (i.e. fire alarms) (item 32).

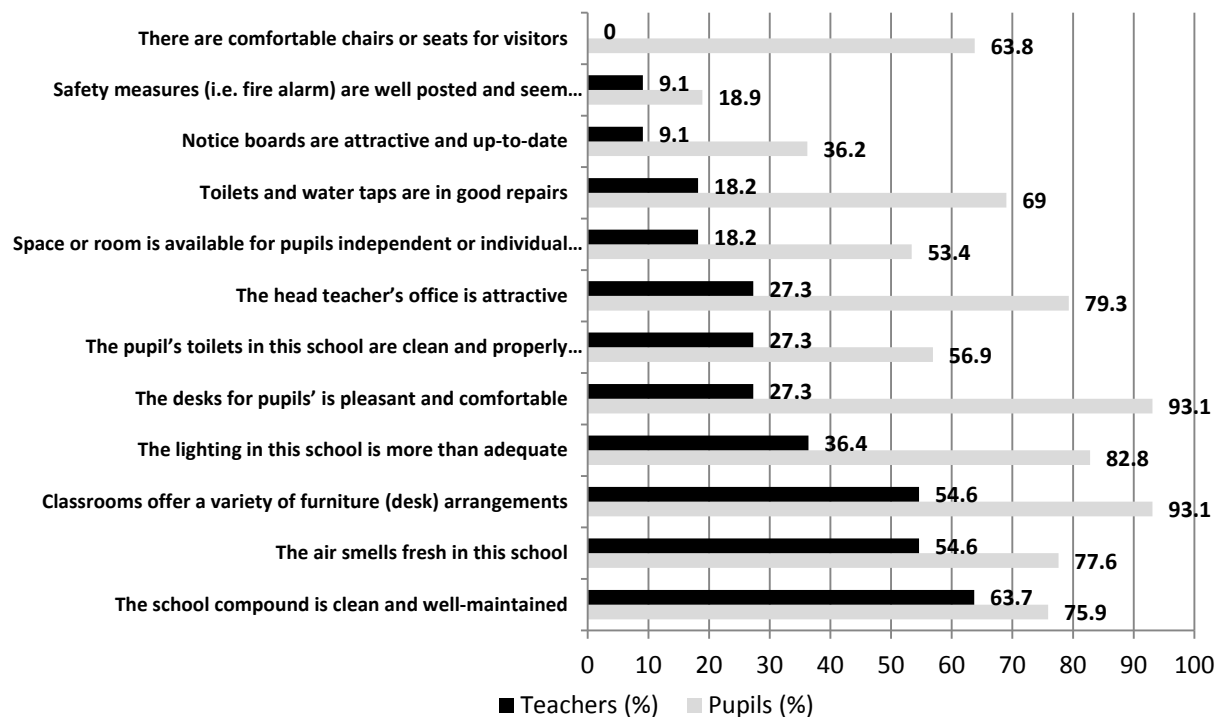


Figure 3. Percentage (%) of pupils and teachers who **Strongly Agree** and **Agree** on statements about **Place**

However, most teachers had negative perceptions of all aspects of the place except for the freshness of the air, the school compound being clean and well maintained, and classroom offering a variety of furniture arrangements. Generally, the perceptions of teachers contrasted considerably those of their pupils in all aspects. Most pupils were positive and appreciative of their school's physical environment while most teachers were negative. Because of their exposure and background, teachers had a higher expectation for the condition and cleanliness of these facilities, while most pupils' background of squalor would make them appreciate and be comfortable with the existing conditions

Process

According to Bernhardt (2012) an inviting "process" is one where (1) students feel as if they belong, are challenged, are cared for, etc.; (2) teachers feel supported and that they are working in collaborative environment, with high expectation for students and believe all can learn; and (3) parents feel welcome at the school and know what they can do to support their child's learning and there is effective home-school communication. From the perception of teachers and pupils in this school the process is somehow inviting (refer to Figure 4).

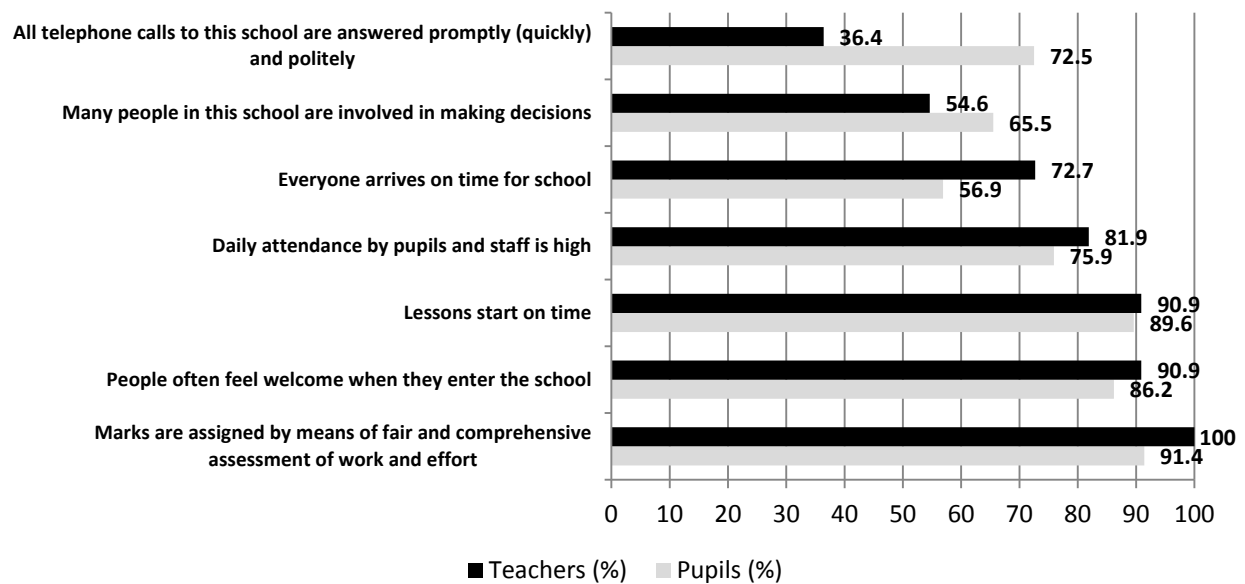


Figure 4. Percentage (%) of pupils and teachers who “Strongly Agree” and “Agree” on statements about “Processes”.

Most pupils indicated positively that marks and grades are assigned by means of fair and comprehensive assessment of work and effort (item 7); people often feel welcome when they enter the school (item 29); lessons start on time (item 50); daily attendance by students and staff is high (item 43); all telephone calls to this school are answered promptly and politely (item 14). The perceptions of slightly more than half indicated that many people in this school are involved in making decisions (item 35) and everyone arrives on time for school (item 22).

According to most teachers the marks and grades are assigned by means of fair and comprehensive assessment of work and effort; people often feel welcome when they enter the school; lessons start on time; daily attendance by students and staff is high; all telephone calls to this school are answered promptly and politely. The perceptions of slightly more than half indicated that many people in this school are involved in making decisions and everyone arrives on time for school. However, the perception of most teachers on whether all telephone calls to this school are answered promptly and politely was negative. This differed considerably from what most pupils felt. In Kenya school access and use of telephone and mobile phones by students is prohibited, while parents from slums would rarely call the school, as they were too poor to have access to a telephone.

Policy

For a long time, education policy formulation in Kenya has been the role of the ministry of education; there is little effective participation by stakeholders (Oduol, 2006). In the current study the overall aspect of policy was rated favorably and the most inviting aspect of the school.

As shown in Figure 5, most pupils perceived their teachers as willing to help pupils who have special problems (item 5). They also thought that school policy encouraged freedom of expression by everyone (item 19); that the messages and notes sent home being positive (item 26). The pupils were also satisfied with the school’s academic performance believing that most pupils performed well in their school (item 34); that they have the opportunity to talk to one another during class activities (item 11); and that the grading practices were fair (item 47). Similarly, the perceptions of most of the teachers on the issues above were all favorable. However, there was a considerable difference between the percentages of the teachers (90.9%) and pupils (69%) who felt the pupils’ had an opportunity to participate in class activities.

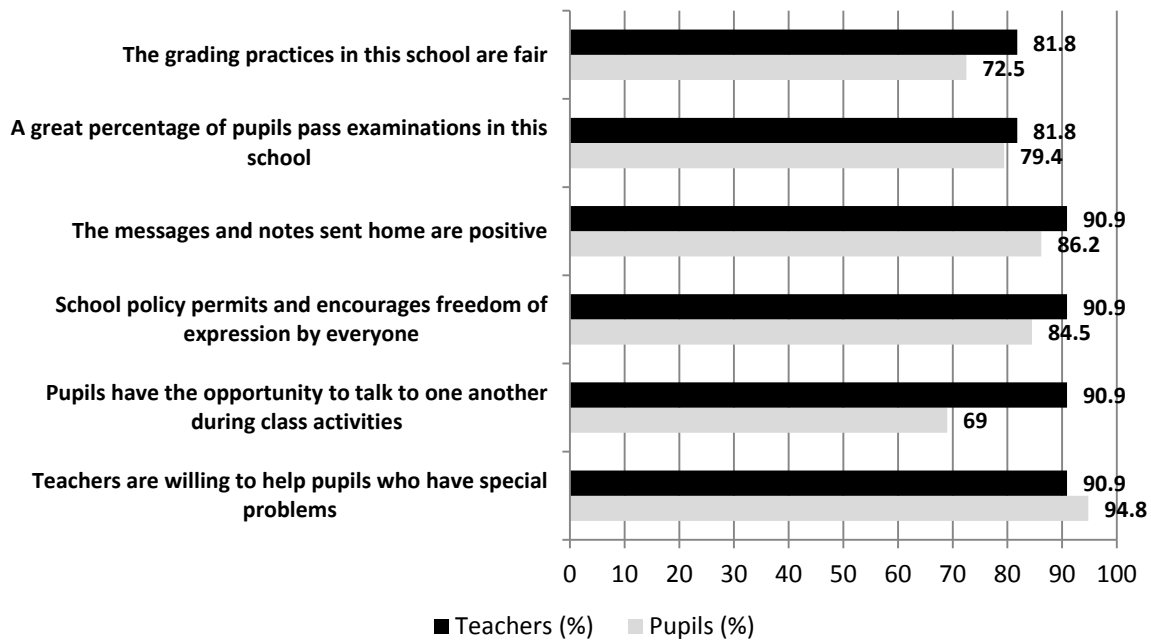


Figure 5. Percentage (%) of pupils and teachers who “Strongly Agree” and “Agree” on statements about “Policy”

Program

Most of the programs considered in this section are after-school programs also known as extra-curricular activities. However, in Kenyan context they are regarded as co-curricular activities since they contribute to the development of the learners. Such after-school programs make students to have a change of environment and diverse learning experiences which helps in maintaining their interest and attention (University of Michigan, 2012). Kenya’s Education Permanent Secretary, Prof. George I. Godia, argued that extra-school activities contributes to an all-round child

complete with harnessed creativity-socially, physically and academically (Oduor, 2013). Johnson, Crosnoe, and Elder (2001) found that levels of participation in school programs were strongly associated with the academic achievement. According to Granger, Durlak, Yohalem, and Reisner (2007) these programs can lead to improvements in academic achievement by increasing confidence, problem solving capacity and social skills. In the current study the perception of teachers and pupils of school programs indicated that they were somewhat inviting as depicted in Figure 6.

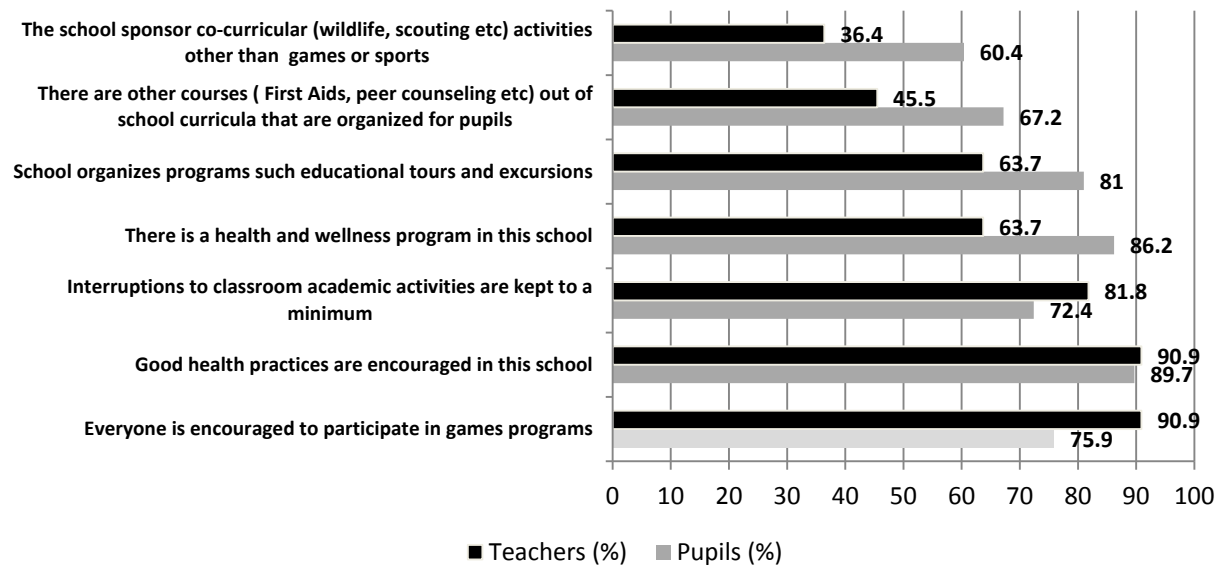


Figure 6. Percentage (%) of pupils and teachers who “Strongly Agree” and “Agree” on Statements about “Programs”

The perception of most pupils was favorable on the encouragement of good health practices (item 23); the existence of a health and wellness program (item 10); the organization of programs that involvement of out of school experience i.e. educational tours (item 17); everyone being encouraged to participate in games (sports) programs (item 2); and interruptions on classroom academic activities being kept to a minimum (item 31). On whether the school sponsors co-curricular activities (wildlife, scouting, etc.) (Item 38) and if there are mini-courses (First Aid, peer counseling, etc.) available for pupils (item 46), almost third of the pupils were positive.

Most teachers were positive on the encouragement of good health practices; the existence of a health and wellness program; and interruptions on classroom academic activities being kept to a minimum. About sixty-four percent of them indicated that there exists a health and wellness program and that the school organizes programs that involvement of out of school experience i.e. educational tours. However, most of them indicated that the school does not sponsor co-curricular activities (wildlife, scouting, etc.) neither does it avail mini-courses (First Aid, peer counseling, etc.) for pupils.

However, the views of most teachers and pupils differed considerably on most aspects of the “Program” except on the encouragement of good health practices and interruptions on classroom academic activities being kept to a minimum. More pupils than teachers held positive opinions about the organization of programs that involved out of school experience i.e. educational tours; school sponsoring

co-curricular activities (wildlife, scouting, etc.); availability of mini-courses (First Aid, peer counseling, etc.) for pupils and existence of a health and wellness program. More teachers than pupils stated that everyone is encouraged to participate in games (sports) programs.

Discussion

Social interactions between the people in the school affect and help to define the broad concept of school climate/environment (Koth et al., 2008; Marshall, 2004). A positive school climate exists when all people feel comfortable, wanted, valued, accepted, and secure in an environment where they can interact with caring people they trust. In this school, the perceptions of people by both teachers and pupils were favorable.

Most of the teachers and pupils concurred that the people in their school are caring, trustful, and respectful. This is evident from a teacher’s plea:

“Help the children because many of them are orphans and the teachers because they are the ones to take care of them in most cases. We will be very grateful”.

While the following comments from pupils about their teachers confirm that teachers are indeed caring:

The teachers attend to pupils who need them. They also spend time after school with those who need extra help in subjects they do not understand especially our class teacher. I am really proud of him. Sometimes, he sacrifices his time to be with us to

6pm in the evening. Our head teacher also sacrifices his time in spite of all businesses he has with parents and visitors to come to talk and teach us various subjects especially mathematics. Our teacher is very good and reasonable person. He normally teaches us well. He normally accepts to help those who want extra lessons. Teachers have good relationship with pupils hence bringing up pupils co-operation and good learning atmosphere. Teachers are very dedicated in teaching. I am proud of my teachers.

However, the opinions of most teachers and pupils differed on a number of issues; these included people wanting to be at the school; teachers appearing to enjoy life; pupils being proud of their school; the head teacher involving everyone in decision making and treating them as responsible. The pupils might have based their perception that their teachers appear to enjoy life from their appearance, as stated by one of them:

"...they (teachers) are always smart."

Not being privy of the challenges facing their teachers which include inadequate instructional materials, poor infrastructure, school location, lack of transparency in financial matters, poor remuneration, and heavy work load. From the pupils' background, people who are smart, i.e. smartly dressed, are enjoying life-so their teachers are among them. However, the main issues that appear to make most teachers unhappy are inadequate instructional materials and infrastructure as captured by the following comments from teachers:

"Challenges are many that affect our school. For example, there are less instructional materials. Textbooks are not enough due to the large school population."

On infrastructure they stated:

"We are lacking enough classrooms to accommodate the new admissions. Teachers' staffroom should be improved. We have limited facilities like classrooms, washrooms, etc. The "mabati" structure in the school is not safe for young children. As teachers we need to feel comfortable in our staffroom; we need comfortable chairs to sit on and they should be adequate. Infrastructure needs to be constructed since it degrades and interferes with school performance, it's too small classroom for learning"

Teachers' perception was more favorable than most pupils on the head teacher's involvement of everyone in the decision-making process. This is because the pupils' participation in decision making at classroom or school level, in most public schools in Kenya is rare (Jeruto & Kiprop, 2011). It is often viewed as problematic to school administrators, parents and

society at large, since they are viewed as minors, immature and lacking in the expertise and technical knowledge that is needed in the running of a school. Yet most educationists have stated that the involvement of students in school decision-making at organisation and classroom level is important in making the school processes inviting (Barrera-Osorio, Fasih, Patrinos, & Santibanez, 2009; Jeruto & Kiprop, 2011; Smith, 2013).

In addition, head teachers fail to involve all people in decision-making because they make decisions through the school boards/management committee. The school boards are typically advanced as arenas for democratic governance, as mechanisms that enable site actors, notably teachers and parents, to wield significant influence on significant issues (Montgomery, Gragnolati, Kathleen, Burke, & Paredes, 2000). Presumably, the existence of such a board or committee would result in other benefits, such as better quality decisions regarding school management, more humane work environments, more equitable educational opportunities, and noticeable improvements in teaching and learning (Malen, Ogawa, & Kranz, 1990). Bandur (2012) postulates that school-based management with the devolution of authority and responsibility to school level decision-makers is the most prominent feature of public school management systems. However, Malen (1999) has shown that parents in low-income populations typically assume or resume the familiar "listen and learn" roles, ratify or "rubber-stamp" decisions made elsewhere.

According a UNICEF (2012) report, where pupils learn either in permanent or temporary buildings, in tents or under trees, their learning is less successful; the lack of suitable classrooms can thwart learning. It is further stymied by inadequate toilets, a dusty and noisy environment, and lack of running water and/or electricity. The report further states that fulfilling the education-related Millennium Development Goals (MDGs) requires not just getting all children into school, but ensuring that the physical environment, "Place", is safe, equipped with adequate resources, and graced with appropriate conditions for learning. Mayer (2007) argued that a school's buildings and grounds announce a welcome to the students. Yet in this school the majority of teachers and pupils do not have a favorable perception of "Place".

Despite the high rating by most pupils on most aspect of the "Place", written comments on the condition of most facilities in the school depict them as disinviting and in need of improvement. The following are some sentiments from the pupils about their school:

"Our field is full of dust that causes coughs. The sewage in our school make some pupils suffocate. Our toilets have some problems and that interferes

with our environment. Please, I hope you will try to help us with that problem especially toilet for boys”

While the teachers also stated that:

“I feel this school must be far much better than it is; teachers’ staffroom should be improved. The location of the school is not good in terms of sewage; the “mabati” (iron sheets) structure in the school is not safe for young children. As teachers we need to feel comfortable in our staffroom; we need comfortable chairs to sit on and they should be adequate. The classrooms are too small for learning.”

Generally, the pupils are positive on the school programs than their teachers. However, there appears to be a different understanding on what some of the aspects of the program mean for teachers and pupils. For example, what pupils would consider as an educational tour or a mini-course might not be considered so by their teachers. In Kenyan schools, organization of after school programs must involve teachers, as a ministry of education’s requirement, and therefore teachers’ perception would be more reliable in this context than the pupils. Nevertheless, the pupils indicated that their school has after school programs such as debates.

As commented by one pupil:

“Every Wednesday and Thursday we are doing debate to improve in writing composition.”

Apart from the after-school program, this school has a feeding program, which was not among the items in the instruments, as indicated the following comments:

“I would like our teachers to change for us a balance diet. In the school we don’t eat balance diet. The school committee should change the diet; pupils should eat a balanced diet and not “githeri” [mixture of corn and beans cooked together] everyday”.

This program was lauded by teachers as being very beneficial to the learners as indicated by a teacher’s comment:

“The pupils are fed in the school which discourages absenteeism since most of the pupils depend entirely on the food provided by the school”.

All children have the right to adequate nutrition, which is essential for attainment of the highest standard of health and is important as it determines their health, physical growth and development, academic performance and progress in life. Malnutrition has been found to affect schoolchildren’s scholastic performance, age of enrollment, concentration in class, attendance, and infection rates (Finan et al., 2010). Langer (2011) argues that children whose health is already at risk due to nutritional problems come to school tired and hungry; children such as the ones from Kibera, are

unable to cope or to benefit from their lessons. Therefore, a school feeding program was introduced in Kenya’s most impoverished areas, such as the slum communities from the urban fringes. The free meals acted as an incentive to attract school-aged children to class and provide the minimum recommended daily allowances (RDA) of calories, protein, and essential micronutrients to their children (Finan et al., 2010; Langer, 2011). It is meant to alleviate hunger while supporting education, health and community development. This program takes different forms in different locations: in some schools the program provides school meals or snacks to be eaten during school hours, in others food rations are distributed to pupils at the end of each month or school term if they attended school regularly (Espejo, Burbano, & Galliano, 2009). At Raduce Primary School, the school feeding program provides lunch consisting of a mix of cooked beans and corn for all children attending school each day.

The “magnetic” effect of the meal programs has greatly increased school attendance rates, especially among younger children, while schools that provide meals showed higher attendance rates and lower initial dropout rates than schools that do not (Finan et al., 2010; Langer, 2011). The nutritional importance of the school meal (usually around 700 kcal) is immense, representing more than half of the consumed RDA values for 40 percent of the participating students (Finan et al., 2010). Additionally, Finan et al. (2010) assert, that no longer distracted by hunger and the crippling effects of extreme malnutrition, students are better able to concentrate, understand new material, and positively socialize with teachers and peers.

Conclusion

The current study has revealed that in spite of the challenges associated with public schools in urban low socio-economic setting it is possible through the implementation of inviting policies, programs, processes, and people, to realize positive academic achievement with students in this population. The physical environment or the “Place” was found to be unpleasant, unattractive, and poor maintained, dusty and disinviting especially the restrooms/toilets. Nevertheless, in spite of these challenges associated with the physical environment there was a gradual growth in academic achievement i.e. KCPE scores of the school. This study has shown that the quality of education of public primary schools in urban low socio-economic setting can be improved through the people, policies, program, and processes.

This study has shown concurrence and differences in the perception of teachers and pupils in urban low socio-economic settings. Most teachers and pupils of Raduce primary school concurred that the “People” in the school are

caring, trustful, and respectful but differed considerably on people wanting to be there, teachers appearing to enjoy life, pupils being proud of their school, head teacher involving everyone in decision making and treating them as responsible. On the school “Process”, most of them agreed that visitors feel welcomed when they visit the school, assessment grades/marks are assigned fairly, and lessons start promptly, high attendance by pupils and staff but differed on whether all telephone calls to the school are answered promptly and politely. There was concurrence on most aspects of school “Policy --- teachers” willingness to help pupils who have special problems, school policy encouraging freedom of expression by everyone, messages and notes sent home being positive, and percentage of pupils who perform well in their school but there were considerable differences on the opportunity of pupils to participate in class activities. The perception of most pupils differed to most of their teachers on the aspects of “Place” factor. On school “Program”, they concurred on the encouragement of good health practices, interruptions to classroom academic activities are kept to a minimum, and everyone is encouraged to participate in games (sports) programs.

However, they differed on the involvement of out of school experience i.e. educational tours; school sponsoring co-curricular activities (wildlife, scouting, etc.); availability of mini-courses (First Aid, peer counseling, etc.) for pupils and existence of a health and wellness program. The concurrences of perceptions reflect shared expectations, while the differences reflect the varied expectations and backgrounds of the respondents.

It is suggested that the ISS- R be used to compare how public schools in urban low socio-economic settings are similar or different in terms of their school climates. Additionally, the ISS-R can be used to determine the variations of perceptions among pupils, teachers, and parents of schools, which share similar characteristics such as urban low socio-economic settings, rural settings among others. Measuring Invitational index can enhance the quality of education of a school by providing feedback to the managers and policy makers on what aspect of school climate they need to improve. Finally, we propose that the climate of schools in the urban low socio-economic settings be measured and compared in order to understand and improve the inviting qualities of Kenyan schools.

References

- American School Counselor Association (ASCA) (2003). Taking your school's temperature: How school climate affect students and staff. *School Counselor Resource Series*. Retrieved from <http://www.schoolcounselor.org/files/school%20climate.pdf>
- Bandur, A. (2012). School-based management developments: Challenges and impacts. *Journal of Educational Administration*, 50(6), 845-873.
- Barrera-Osorio, F., Fasih, T., Patrinos, H. A., & Santibanez, L. (2009). *Decentralized decision-making in schools: The theory and evidence on school-based management*. Washington, DC: The World Bank.
- Bernhardt, V. L. (2012). Measuring school processes. Education for the future. Retrieved from <http://eff.csuchico.edu/downloads/MeasuringProcesses.pdf>
- Catalano, R. F., Oesterle, S., Fleming, C. B., & Hawkins, J. D. (2004). The importance of bonding to school for healthy development: Findings from the Social Development Research Group. *Journal of School Health*, 74(7), 252-261.
- Chesire, E. J., Orago, A. S. S., Oteba, L. P., & Echoka, E. (2008). Determinants of under nutrition among school age children in a Nairobi Peri-Urban slum. *East African Medical Journal*, 85(10), 471-479.
- Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *School Climate Research and Educational Policy*, 3(1), 180-213.
- Espejo, F., Burbano, C., & Galliano, E. (2009). *Home-grown school feeding: A framework to link school feeding with local agricultural production*. Rome: World Food Program.
- Finan, T. J., Rashid, A., Woel, B., Arunga, D., Ochola, S., Rutere, S., & Muindi, M. (2010). Impact evaluation of WFP school feeding programs in Kenya: A mixed method approach (Vol. 1). Retrieved from <http://documents.wfp.org/stellent/groups/public/documents/reports/wfp219433.pdf>
- Flay, B. R. (2000). Approaches to substance use prevention utilizing school curriculum plus social environment change. *Addictive Behaviors*, 25(6), 861-885.
- Freiberg, H. J. (1998). Measuring school climate: Let me count the ways. *Educational Leadership*, 56(1), 22-26.
- Furlong, M. J., Greif, J. L., Bates, M. P., Whipple, A. D., Jimenez, T. C., & Morrison, R. (2005). Development of the California school climate and safety survey-short form. *Psychology in the Schools*, 42(2), 137-149.

- Granger, R. C., Durlak, J., Yohalem, N., & Reisner, E. (2007). *Improving After-School Program Quality*. New York, N.Y.: William T. Grant Foundation.
- Griffith, J. (2000). School climate as group evaluation and group consensus: Student and parent perceptions of the elementary school environment. *The Elementary School Journal*, 101(1), 35-61.
- Halpin, A. W., & Croft, D. B. (1963). *The organizational climate of schools*. Chicago, IL: Midwest Administration Center of the University of Chicago.
- Haynes, N. M., Emmons, C. L., & Comer, J. P. (1993). *Elementary and middle school climate survey*. New Haven, CT: Yale University Child Study Center.
- Hoy, W. K., Smith, P. A., & Sweetland, S. R. (2002). The development of the organizational climate index for high schools: Its measure and relationship to faculty trust. *The High School Journal*, 86(2), 38-49.
- IBM Corp. Released 2010. *IBM SPSS Statistics for Windows* [computer software], Version 19.0. Armonk, NY: IBM Corp.
- Integrated Regional Information Networks(IRIN) (2011). In-depth: 'Slum Survivors' inspires and uplift. Retrieved from <http://www.irinnews.org/InDepthMain.aspx?indepthid=89&reportid=91545>
- Jeruto, T. B., & Kiprop, C. J. (2011). Extent of student participation in decision making in secondary schools in Kenya. *International Journal of Humanities & Social Science*, 1(21), 92-99.
- Johnson, M. K., Crosnoe, R., & Elder, J. G. H. (2001). Students' attachment and academic engagement: The role of race and ethnicity. *Sociology of Education*, 74(4), 318-340.
- Johnson, W. L., Johnson, A. M., Kranch, D. A., & Zimmerman, K. J. (1999). The development of a university version of the Charles F. Kettering Climate Scale. *Educational and Psychological Measurement*, 59(2), 336-350.
- Karanja, I. W., & Makau, J. (2009). An inventory of the slums in Nairobi. Retrieved from http://www.irinews.org/pdf/nairobi_inventory.pdf
- Keefe, J. W., & Kelley, E. A. (1990). Comprehensive assessment of school environments. *NASSP Bulletin*, 74, 54-63.
- Koth, C. W., Bradshaw, C., & Leaf, P. J. (2008). A multilevel study of predictors of student perceptions of school climate: The effect of classroom-level factors. *Journal of Educational Psychology*, 100 (1), 96-104.
- Kuperminca, G. P., Leadbeatera, B. J., & Blatta, S. J. (2001). School social climate and individual differences in vulnerability to psychopathology among middle school students. *Journal of School Psychology*, 39(2), 141-159
- Kweyu, C., & Otieno, R. (2012, p. 35). Three die, 2,000 houses burnt down. *East African Standard*. Retrieved from <http://eastandard.net>
- Langinger, N. (2011). School feeding programs in Kenya: Transitioning to a homegrown approach. *Stanford Journal of International Relations*, 13(1), 30-37.
- Lehr, C. A. (2004). Positive school climate: Information for educators. Retrieved from http://www.nasponline.org/communications/spawareness/schclimate_ho.pdf
- Malen, B. (1999). The Promises and Perils of Participation on Site-based Councils. *Theory Into Practice*, 38(4), 209 - 216.
- Malen, B., Ogawa, R., & Kranz, J. (1990). What do we know about school-based management? A case study of the literature- A call for research. In W. H. Clune & J. F. Witte (Eds.), *Choice and control in American education* (Vol. 2, pp. 289-342). Philadelphia, PA: Falmer.
- Marshall, M. L. (2004). Examining school climate: Defining factors and educational influences [white paper, electronic version]. Retrieved from Georgia State University Center for School Safety, School Climate and Classroom Management website: <http://education.gsu.edu/schoolsafety>
- Mayer, J. E. (2007). *Creating a safe and welcoming school*. Geneva: UNESCO.
- McEvoy, A., & Welker, R. (2000). Antisocial behavior, academic failure, and school climate. *Journal of Emotional and Behavioral Disorders*, 8(3), 130-140.
- McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the National Longitudinal Study of Adolescent Health. *Journal of School Health*, 72(4), 138-146.
- Montgomery, M. R., Gragnolati, M., Kathleen, A., Burke, & Paredes, E. (2000). Measuring living standards with proxy variables. *Demography*, 37(2), 155-174.
- Muraya, J. W. (2011, September 21). Greed and bad politics encourage urban slum. *Daily Nation*, p. 21. Retrieved from <http://www.nation.co.ke>

- Mutambo, A. (2012, December 21). Five Children Found Dead in City Slum. *Daily Nation*, p. 2. Retrieved from <http://www.nation.co.ke>
- Mutiga, M. (2012, October 28). Movie casts a harsh light on yawning inequalities that threaten stability. *Sunday Nation*, p. 12. Retrieved from <http://www.nation.co.ke>
- Noguera, P. A. (2003). The trouble with black boys: The role and influence of environmental and cultural factors on the academic performance of African American males. *Urban Education*, 38(4), 431-459.
- Novak, J. M., Rocca, W., & DiBiase, A.-M. (Eds.). (2006). *Creating Inviting Schools*. San Francisco, CA: Caddo Gap Press.
- Oduol, T. (2006). Towards the making of education policy in Kenya: Conclusions and implications. *International Education Journal*, 7(4), 466-479.
- Oduor, A. (2013, January 3). Top marks alone will not assure excellence. *The Standard*, pp. 20-21. Retrieved from <http://www.standardmedia.co.ke>
- Purkey, W. W., & Novak, J. M. (1996). *Inviting school success: A self-concept approach to teaching, learning, and democratic practice* (3rd ed.). Belmont, CA: Wadsworth.
- Purkey, W. W., & Novak, J. M. (2008). *Fundamentals of invitational education*. Kennesaw, GA: International Alliance for Invitational Education.
- Purkey, W. W., & Schmidt, J. (1987). *The inviting relationship: An expanded perspective for professional helping*. Englewood Cliffs, NJ: Prentice-Hall.
- Purkey, W. W., & Schmidt, J. (1990). *Invitational learning for counseling and development*. Ann Arbor, MI: Eric/Caps Clearinghouse.
- Purkey, W. W., & Schmidt, J. (1996). *Invitational counseling: A self-concept approach to professional practice*. Pacific Grove, CA: Brooks/Cole.
- Purkey, W. W., & Stanley, P.H. (1991). *Invitational teaching, learning and living*. Washington, DC: National Education Association.
- QSR International Pty Ltd (2012). QSR NVivo [computer software], Version 10. Doncaster, Victoria, Australia: QSR International.
- Smith, K. (2005a). Invitational education: A model for teachers and counsellors. *Education Connect*, 2, 9-11.
- Smith, K. (2005b). The Inviting School Survey - Revised (ISS-R): A survey for measuring the Invitational Qualities (I.Q.) of the total school climate. *Journal of Invitational Theory and Practice*, 11, 35-53.
- Smith, K. (2013). Manual for the Inviting Survey (ISS-R): A survey for measuring the invitational qualities (I.Q.) of the total school climate (2nd ed.). Retrieved from: <http://www.invitationaleducation.net>
- Tooley, J. (2007). Educating Amarech: Private schools for the poor and the new frontier for investor. *Economic Affairs*, 27(2), 37-43.
- U.S. Department of Health and Human Services (2000). *Healthy people 2010. With understanding and improving health and objectives for improving health*. Washington D.C.: U.S. Department of Health and Human Services.
- UNICEF (2012). Child Friendly Schools. Retrieved from <http://www.unicef.org/cfs>
- University of Michigan. (2012). Educational programs for under privileged Children. Retrieved from http://sitemaker.umich.edu/356.weinberg/creative_examples_of_after_school_programs.
- Vieno, N. M., Tuhkanen, T., & Kronberg, L. (2005). Seasonal variation in the occurrence of pharmaceuticals in effluents from a sewage treatment plant and in the recipient water. *Environmental Science & Technology*, 39(21), 8220-8226.
- Whitlock, J. L. (2006). Youth perceptions of life at school: Contextual correlates of school connectedness in adolescence. *Applied Development Science*, 10(1), 13-29.
- Wilson, D. (2004). The interface of school climate and school connectedness and relationships with aggression and victimization. *Journal of School Health*, 74(7), 293-299.
- Worrell, F. C. (2000). The reliability and validity of the instructional climate inventory-student form. *Psychology in the Schools*, 37(3), 291-298.
- Zullig, K. J., Koopman, T. M., Patton, J. M., & Ubbes, V. A. (2010). School climate: Historical review, instrument development, and school assessment. *Journal of Psychoeducational Assessment*, 28(2), 139-152.