What does school size do: Safety perceptions of educators and students[*]

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Abstract: The purpose of this study is to find out how teachers, principals, vice principals and students perceive school safety and how that differs related to school size. 194 educators and 1420 students' views were elicited by two self-deviced school safety inventories conducted in 10 state high schools in Istanbul in 2008. Cronbach alpha value for educators' safety perception inventory Cronbach was found to be 0.941 and 0.902 for Student School Safety Perception Inventory. Frequency, percentage, t-test, Kruskall Wallis H-analysis and Man Whitney U-techniques were used as statistical analysis. After analysis, it appeared that perceived safety problems in school as disciplines, interpersonal relations, school building, school counseling differ related to school size. When the school size increases, teachers reported that safety problems increase as well. Schools with 500-1000 students were perceived less problematic in discipline and interpersonal relations. Violence, drug dealing, carrying gun, stealing, appeared as common safety problems at schools. Principals and vice principals appeared as more optimistic than teachers in safety problems at schools. Female teachers and principals perceived building related problems, counseling problems more serious then male colleagues. School principals should scrutinize school safety problems, should develop school safety plans comprehensively and should update it regularly. Standards related to school size should be developed and number of students in a particular school should be determined according to those criteria. Social and cultural facilities should be built in connection with the number of students studying at school. Arrangements related to school size should take into account students grade, sex, duty of educators. School environment's safety should be paid more attention.

Key words: school management; school size; school safety

1. Introduction

Why is school safety important? Safety in our schools is important and necessary to support the academic success of each child, giving them the opportunity to learn and achieve in a safe and nurturing environment. School safety is important to protect all students and school personnel from violence that includes assaults, bullying, victimization, theft, classroom disorder, fights, robbery, use of weapons, sexual attacks, violent crime (Teacher perceptions of school safety: Cautious optimism, http://safety.lovetoknow.com/Teacher_Perceptions_of_School_Safety).

There is a growing consensus that small schools not only have an academic achievement advantage but also: (1) promote character development; (2) emotional stability among their students; (3) higher attendance; (4) lower

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dropout rates; (5) safer schools; (6) collegial working environments and higher levels of job satisfaction for teachers; and (7) as well as an increased public confidence and parent satisfaction with the schools their children attend.

Most importantly, small schools improve educational outcomes. Students from small schools tend to complete more years of higher education and score higher on standardized tests.

Major findings suggested by Nguyen, Schmidt and Murray (2007) show that small schools should:

(1) reduce student dropout rates and increase attendance (Fowler & Walberg, 1991; Wasley, et al., 2000; Fine, 1994; Oxley, 1995);

(2) enhance students' attachment to, and satisfaction with school, while improving the professional climate for teachers (Bryk & Driscoll, 1998; Lee & Smith, 1995, 1997; Oxley, 1995; Wasley, et al., 2000; Copland & Boatright, 2004; Meier, 2002; Klonsky, 2003);

(3) decrease student violence and misbehavior (Klonsky, 2002; Zane, 1996; Kennedy, 2003; National Centre for Education Statistics, 1998);

(4) close achievement gaps between socio-economically disadvantaged and affluent students (Howley & Bickel, 2000; Howley & Bickel, 1999; Lee & Smith, 1995, 1997);

(5) foster strong relationships between students with teachers, families and communities (Wasley & Lear, 2001; Copland & Boatright, 2004)

(6) be cost effective (Wasley & Lear, 2001; Stiefel, et al., 1998; Lee & Smith, 1995; Vander Ark, 2002).

Students in small schools are more satisfied with their school experience, and are less likely to drop out than those in large and comprehensive schools (Putman & Haughwout, 1987; Fowler & Walberg, 1991). Meanwhile, large schools are considered to act more as a sorting mechanism for children, dividing learners according to their social and cultural capital than smaller ones (Oakes, 1985; Howley & Bickel, 2000). Working class and ethnic minority youth constitute the majority of students in large comprehensive schools that often have the reputation for being the lowest achieving schools (Wasley, et al., 2000). Students from socio-economically disadvantaged families are often placed in lower academic tracks with less-experienced teachers and large classes (Anyon, 1980; Coleman, 1987). The small school movement advocates that the best way to offset educational inequality is protecting educational policy which promotes diversity in school structures, and protects a place for smaller schools (Cleary & English, 2005; Howley & Bickel, 2000). Researchers have found that many students unsuccessful in large schools are able to catch up with their peers after enrolling in small schools (Nathan & Febey, 2001; Howley & Bickel, 2000; Howley, Strange & Bickel, 2002).

Bryk and Driscoll (1998), Wasley and Lear (2001), and Howley and Bickel (2000) reasoned that teachers and school administrators in small schools have the opportunity to invest personal time in each student and provide more interaction with them outside of the classroom. This also enables teachers to learn more about the complex personalities and needs of the individual students and their colleagues. They also find that teachers in small schools are able to serve as advisors, mentors or tutors in several subjects. In addition, because the staff of small schools can focus on a well-defined learning agenda, and know and be known by every student, small schools clearly offer success for every student, regardless of their background, ethnicity, or social status.

Since students and teachers in small schools know one another and have more contact time, there are more opportunities for students to discuss norms and expectations of the school with teachers, and for teachers to recognize and prevent potential negative problems, such as violence or vandalism. Klonsky (2002), Zane (1996), and Kennedy (2003) found that small schools experience fewer problems with violence from students (Nguyen,

Schmidt & Murray, 2007).

Schools of more than 600 pupils tend to achieve poorer public exam results in the end and a higher proportion fail to gain any qualifications. School size affects attendance rates as well, and since attendance contributes to exam outcomes, there is an additional small indirect impact of size. Larger classes are also associated with poorer results. Schools offering post-compulsory education for 16-18 years old perform less well than those restricted to the 11-16 age range, consistent with excessive resources allocated towards the older students. In response to better exam results, schools slightly increase in size but there is no tendency for schools with higher proportions of deprived pupils to contract (Foreman-Peck J. & Foreman-Peck L., 2006, pp. 157-171).

There is little evidence about the effects of school size on school safety. In order to understand the effect of school size to safety this research was undertaken. The purpose of this research was to determine perception of school safety in general and specificaly in terms of school size, in high schools within the context of the ideas of educationalists (teachers, principals, vice principals) and the students.

2. Method

Opinions of 194 educators in 10 high schools and 1420 students studying in those high schools were elicited by self-deviced scale. The survey was carried out within 2006-2007 academic year in 10 high schools which were randomly selected in Istanbul, Turkey.

The data which were used to measure safety of schools were obtained by using educators school safety scale and students school safety scale which were built up by researchers. Scales were made up of 5 sub-dimensions. The total Cronbach alpha value of educators school safety scale was 0.941 and the total Cronbach alpha value of students school safety scale was 0.902.

3. Findings

Distribution of the 194 educators who marked the scale according to duty and sex were as follows: (1) 16% principals and vice principals; (2) 84% teachers; (3) 52% female; and (4) 48% male.

Half of the schools have below 1500 students, the other half have over 1500 students which shows that research was undertaken in large schools.

Experience of educators who participated in research: 57% have 0-10 years of experience so sample group consists of relatively younger educators.

Their subjects were humanities, science, math, foreign language, physical education, art education: 90% educators have not had in-service training in violence and safety at school, 10% have.

Research sample of student: Total is 1420.

Proportion of students who marked the scale: (1) 51% female; (2) 41% studying in 9th grade; (3) 27% studying in 10th grade; (4) 30% studying in 11th grade; and (5) 2% studying in 12th grade.

It appeared clearly that the most important safety problem which the educationalists experienced, respectively were the students' carrying dangerous items such as knife and jackknife, students fights within the school, etc., and the most important safety problems which the students experienced respectively were stealing, student fights within the school, threatened with weapons by kidding text.

It was identified that the safety of schools according to educationalists perceptions differentiate in a meaningful way in some subdimensions to variables of the duty, sex, size of the school, seniority, graduation,

subjects and in service education about safety in school variety.

It was identified that safety of schools according to students perception differ significantly in some subdimensions to variable of sex, grade, subject, and parents education situation.

School size makes a great influence on educators' safety perceptions of school ($p<0.001$, Kruskal Wallis H-test). In order to understand which size group makes difference, non-parametric Man Whitney U-test were undertaken that educators (teachers, principals, vice principals) who are in post in school size with 500-1000 pupils perceive safety problems at school as minor issue, than educators in post in school size over 1000 pupils. When the school size goes up, perception of educators in safety problems increase.

According to the educators' views, school size does not make difference in terms of safety precautions ($p>0.05$). School size does not make difference as educators perceptions in judging school climate as safe.

In terms of discipline and interpersonal relationships, according to educators' opinion, school size was found significantly effective ($p<0.05$). Discipline application and interpersonal relationships at school was found more positive (effective) in school size between 1001-1500 pupils than school with 500-1000 enrollment, which is an expected result.

In terms of physical structure and counseling, Kruskal Wallis H-test indicated that school size makes difference, educators reported ($p<0.001$).

Unexpectedly, educators in post in larger schools perceive physical side of school and student counseling more positive than educators in post in smaller schools. Maybe flow of information inside large school is not very effective and the awareness of the problems is restricted by the daily routine as everyone deals with their own teaching rather than managerial issues. It needs to be dug deeply with interviews.

Principals and vice principals perceive their school safe, by comparing teachers in post in the same school. Management team believe that there are less safety problems, safety precautions were adequate, school climate is positive and safe, physical conditions and interpersonal relationships were effective, school counseling system was good enough. Teachers in or out of the class were among the students much more than management team so they might easily see the problems and possibility of violence.

USA education ministry prepared a report in school safety and stated that, principals, staff, parents, leader of communities perceptions of school safety were found as different (USA Department of Education, 1998, p. 12). It is obvious that the opinions and perceptions of all the staff and parents should be taken into account in assessing school safety.

Male teachers assessed existing safety problems at school less than female teachers, namely male teachers found the school in post safer than their female colleagues. Males also found physical structure of the school and counseling service much better than female teachers did. This might be because of the social role of men and women. Two sexes needs and perceptions should be fulfilled in having safe school training.

After having statistical analysis, under the heading of safety problems in terms of school size, it appeared that:

(1) Educationalists in post in school size between 500-1000, by comparison with educationalists in post in school size 2501 and over;

(2) Educationalists in post in school size between 1001-1500, by comparison with educationalists in post in school size 2001-2501 and over perceive safety problems in school as less.

In the last one year, students' and educators' opinions about experiencing safety problems at school:

(1) 70 out of 194 educators reported that they experienced safety problems at school,

(2) 146 out of 1420 students stated that they experienced safety problems at school,

(3) Safety problems defined by educators as: (a) 11% student fight; (b) 14% bringing knives; (c) 11% suspected people waiting outside of school; (d) 11% violence between students.

(4) Safety problems defined by students: (a) 16% theft, stealing; (b) 5% teacher abuse; (c) 5% bringing gun to the school; (d) 5% fight outside school; (e) 8% fight inside school.

Violence between students (according to teachers 11%, accordance to students 1.37%), not to feel secure at school, feeling scared (according to student 4%), damaging teachers' property (3%), should be seen as an indicators which might lead to crisis at school in the future.

4. Discussion

It was seen that only 2 of 10 schools participating in the study had 400 to 800 students accepted as ideal school size standard (Bakioğlu & Polat, 2002, p. 149). Five of the schools in the study had 1000 and more students, 3 had 2000 and more. These results are worth considering as it is known that crime and problems increase as the same as the school size. Even though the population of schools are large, it is thought that they can take measures of physical arrangements and guidance for students. In schools with large size school management can make positive judgement if they take necessary measures and can take control of things. Management skills are of significance at this level. It is thought that schools with large size in the study can arrange the physical structure and guidance for students according to their size. The findings show that schools with large size are perceived significantly more positive than schools with small size in arranging physical structure and guidance. Research findings indicated that according to educators' perception large schools make no significance difference in subscales of school safety, safe climate and security measures. Noonan (2004, p. 64) noted that creating and sustaining a positive school climate requires a strong school management supported by school staff, families, school communities and students.

It is thought that no difference emerged between small and large schoolsdecause school management and staff could not make negative comments for the climate and measures that they have taken themselves. It is also thought that existence of security problems according to school size caused differences in perceptions regarding discipline and interpersonal relationships and made school management and staff consider students responsible rather than themselves.

Research findings show that students perceive burglary as the most important security problem. In the US, on the other hand, carrying a gun was found to be the most important security problem. The others are racial tensions, bullying and campus security respectively. Drugs were identified as the lowest security problem (Testani-Cafiero, 2003). The difference with the findings may be caused by cultural and economic differences between the countries.

In this study, burglary was found to be the most important security problem according to students' perceptions. TV culture emphasizing consumption and economic problems may be causing students to steal. Turkey statistics institute report reveals that 20.5% of the population is poor. Considering that there are groups not recorded for poverty, it is understood that a considerable number of citizens live on the poverty borderline. Stewart (2003) noted that poverty has no effect on security problems at schools and attributed this perception to cultural and economic factors. However, poverty can be said to be a factor on stealing. Ethics and character education must be given at school. This will have an impact on increasing ethical behaviour and decreasing the

rate of such events. Besides, the state provides poor students with monetary aid through their mothers. However, the guidance service should determine students in need through forms getting to know families and provide aids through management and municipalities in a kind manner without injuring their honour.

Research findings show that there are physical (students carrying knives or guns), social (violence among students, feeling insecure at school, fear), psychological (harassing teachers) problems that affect safety at school. Physical, social and psychological problems may affect students' personality development negatively. Ministry of Education and schools should take necessary measures against these problems.

Schools that have 500-1000 students experience less safety problems than schools with 2501 students. Buffo (2005) stated that small schools teachers have positive opinion about safety perception of their schools. Steward (2003) reviewed school social environment, school climate, and unwanted behavior at schools and found that large schools in the metropol disrupted behaviors much more than small schools. Cotton (1996) reported that less negative social behavior is monitored in small schools than large schools. When the school size getting larger, violence at school increases, and this leads to decrease positive perceptions about the school. Crime rates are increasing in large schools (Bakioğlu & Polat, 2002, p. 149).

5. Recommendations

5.1 For education ministry

Security problems increase at large schools. Standards should be developed about school size and populations should be limited accordingly. The Ministry of Education should found schools according to ideal size with social service areas. Necessary measures should be taken in order to decrease the population to ideal standards at schools currently in service.

Enough number of efficient counselors should be appointed to schools and they should be given authority regarding safety application.

The Ministry of Education should search documents related to school safety and prepare a web page covering coping methods including precautions for large schools particularly.

Involvement of safety bodies like hospitals, police and fire brigade around the school in safety activities should be arranged within a law.

The curricula should be made interesting for students and should be made to improve thinking, creativity, self-discipline. Academic development should be encouraged.

5.2 For schools

School administration should examine the current problems at schools, develop extensive school safety plans and update them accordingly. Moreover, they should develop plans for emergency crisis. Students from all grades, teachers from all subjects, staff, parents and community leaders should be made to participate in making and implementing plans.

School administration should develop relationships with their environment, take measures against potential threats, and carry out plans to fight against risk factors threatening students by examining families.

School administration should develop diverse social activities to attract students to prevent them from using their energy on negative sides.

School administration should increase their relationship with non-governmental organizations and receive support from them.

School staff should organize educational activities about school safety for parents.

5.3 For students

Class teachers should cooperate with the counselors to get to know about students and to reveal risk factors. Information about students should be gained through cooperation with parents, and safety measures should be taken if necessary.

All teachers should give examples and information about bad habits and harms of violence, and should pose a role model. It is evident that a student who sees the teacher smoking will not be influenced by his/her advice about the dangers of smoking.

Ethics, courtesy and other subjects related to character education should be incorporated in the curricula.

5.4 For researchers

The definition of insecure school should be made clear and how potential measures taken may be effective or ineffective, which should be revealed by doing research in large size schools. What kind of model can be developed to change crowd from disadvantage to advantage may be studied. For example, weekly meetings can be held where opinions related to risk factors of students that pose a role model in crowded schools and classes and their suggestions may be examined. Researchs may be done through examining events that can cause violence in class dynamics to form a system where prevention can be made possible before the problems occur.

Experiences of teachers, students or parents exposed to violence may be examined and the findings could be used as a material in safety educations in order to see the impact of trauma they went through.

Experimental studies may be carried out at large size schools to develop security problems.

5.5 For community

Our children carry on their education in a social life consisting of increasing violence, dissatisfaction, physical power and being superior. This puts a significant responsibility on families, media organizations and community leaders. Parents should be observers and friends of their children.

Media organizations should take necessary measures considering that violent programmes may affect children. Media should provide support to avoid violence.

There may be limited opportunities for organizing interesting and educative activities at school where students can direct their energy. These activities may be organized by municipalities or non-governmental organizations. Therefore, students can be prevented from directing their interest in harmful habits.

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