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EFFECTIVE SCHOOL CHARACTERISTICS AND STUDENT ACHIEVEMENT CORRELATES AS PERCEIVED BY TEACHERS IN AMERICAN STYLE INTERNATIONAL SCHOOLS

by

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B.S. Florida State University 1971
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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Education in Curriculum and Instruction in the College of Education at the University of Central Florida Orlando, Florida

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Major Professor: Kay Allen
ABSTRACT

The purpose of this study is to investigate the relationships between effective school characteristics and norm referenced standardized test scores in American-style international schools. In contrast to schools in traditional effective schools research, international schools typically have middle to high SES families, and display average to above average achievement. Eleven effective school characteristics were identified and correlated with standardized test scores for grades 4, 6, and 8 and high school SAT scores. Data was gathered from an online teacher questionnaire designed for this study.

All eleven characteristics were present in high performing international schools while frequent analysis of student progress, high academic expectations and positive school environment were more prominent. Positive school environment, high academic expectations, strong instructional leadership and cultural diversity were chosen as important characteristics of an effective international school. Learning time is maximized was the only characteristic that was significantly correlated with achievement and only in grades 4, 6 and 8. There was no statistically significant relationship found between norm referenced test scores and the aggregate effective school characteristics score.
This dissertation is dedicated to my amazing wife and best friend, Vickie. Without her support, suggestions, critiques, editing, patience, and love this project would have been impossible.
ACKNOWLEDGEMENTS

After spending many years in education as a student, teacher, principal, and director I went into the doctoral program at UCF with a “show me” attitude. Could university professors really teach me anything?

I was lucky enough to have Dr. Kay Allen as my professor in my first class in the doctoral program; her quick smile, candid discussions, enthusiasm for life, and distain for bureaucracy alleviated my misgivings and shattered my conceptions of the ivory tower professor. I quickly realized that I was starting on a new road of discovery guided by kindred spirits who were dedicated to enhancing the lives of children by improving the knowledge of educators in the field. Dr. Allen became more than an advisor, she became my friend. Kay kept me on track and even went to bat for me when the system threw curve balls. She has earned a prominent place in my list of “Most Unforgettable People”.

Through Dr. Bill Gaudelli’s tutelage I discovered the writings of Paolo Freire and Nel Noddings and rediscovered John Dewey. He encouraged me to reflect on my own educational experiences through the eyes of great philosophers, both modern and ancient. I found that although so much seems different today it is all so much the same.

Dr. Larry Holt brought his joy and enthusiasm about children and teaching to life in his classroom. His animated discussions, varied teaching techniques, and vast knowledge of instructional practice made every session special. He also made each of his students feel important as we learned from each other and he learned from us. Dr. Holt models the life-long learner.
Educational researchers live in a world of extraordinary people; people who endeavor to make some quantitative and qualitative sense out of the complexities of human interaction. Dr. Sivo is one of those extraordinary researchers. I am in awe of his enormous understanding of statistical analysis, yet even more importantly, I am in awe of his uncanny ability to break the process into digestible chunks for us mere mortals.

Dr. Ron Clifton’s friendship spans some twenty five years and three continents. His offer to help him launch a new educational venture for Stetson University three years ago also provided me with the opportunity to return to the U.S. to complete my long held ambition of earning a doctorate in education. Ron’s insights into the writing process, questions about my research, and critiques of my conclusions were vital to the success of this venture. I will always be grateful for his support.

There are so many others to thank. My life is blessed with wonderful friends, family and colleagues. Dr. Cindy Hutchinson came to my aid both when I was applying for the program and when I became a doctoral candidate. Without the almost continuous help and eclectic knowledge of my friend and colleague Seth Ober I would still be struggling with web page set-up, data base calculations, and technology needs. And, even though there was much on her plate, Dr. Deb Touchton has always been there with both moral and collegial support.

How do I properly acknowledge my family? They have been so supportive as Dad hid away night after night and weekend after weekend. Jeff and Jill, I appreciate your sincere attempts at showing interest in my long winded explanations of the research.

The writing of a dissertation can be a lonely and isolating experience, yet it is obviously not possible without the personal and practical support of numerous people. Thus my sincere
gratitude goes to my family, my friends, my colleagues, both in the U.S. and abroad, and to my advisors for their support, patience and faith over the last few years.
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CHAPTER ONE: STATEMENT OF PROBLEM

Introduction

Over the last thirty years a large degree of educational research has focused on finding and defining effective schools to guide school improvement efforts that many parents and government leaders believed were desperately needed. Effective schools research attempts to determine the specific whole school factors that are associated with effective schools while school improvement research focuses on the manner in which schools can use those findings to become more effective. Both traditions are inspired by the conviction that schools can make a positive difference in the lives of their students. They are premised on the observational reality that some schools perform better than others and that if we can define what separates the better schools from the mediocre or bad schools teachers and administrators will be able to develop and implement policies and procedures that will improve student achievement.

This research effort is extensive, international in scope, and supported by a number of dedicated investigators throughout the world. The findings associated with these efforts and the definitions of the characteristics of effective schools have been accepted and adopted by many school administrators. A quick search of the World Wide Web will reveal that effective school characteristics are regularly used as a blueprint for school improvement in both public and private schools, in the U.S. and abroad. Some of the early researchers have turned their findings into commercial programs that are sold to schools throughout the world with the claim, “Thirty-five years of Effective Schools research has revealed strategies that empower schools and districts to implement the long-term, systemic changes needed to ensure that every student succeeds” (Lezotte and Pepperl, 1999). Unfortunately, almost all of the research in the field has
been done in low socio-economic (SES) elementary schools and may not be valid or applicable to all schools. The controversy surrounding the definition of the characteristics, research designs, statistical analysis and conclusions, even for low SES schools is probably unknown to many practicing school leaders.

The basis of this study originated during the researcher’s 23 year career in international education. During this almost quarter century association with American style international schools in six different countries and three different cultural regions, the Middle East, Asia, and Central America, it was vividly apparent that the local international school was a special place and of critical importance to the expatriates living and working overseas. These schools are generally staffed by English speaking administrators and teachers. As a rule, they also accept the validity of effective school characteristics even though traditional research has not included high achieving schools or schools with students from high SES families that would typify the international schools where they work.

Although the exact origins of Effective Schools Research as a field may be debated, there is a general consensus in the literature that effective schools research, as we know it today was developed in reaction to the seminal studies in the U.S. by Coleman, J. S., Cambell, E. Q., Hobson, C. J., McParland, J., Mood, A. M., Weinfeld, F. D (1966) and in the U.K. by The Plowden Committee (1967). The Coleman Report concluded that when socio-economic variables were taken into account the school had little effect on student achievement. These conclusions were largely taken to imply that public schooling made little difference in the educational lives of students and that socio-economic status was the determining factor in school success. The subsequent report in the United Kingdom by The Plowden Committee (1967) and the 1972 study of U.S. schools by Jencks (1972) a few years later came to similar conclusions,
lending credibility to Coleman’s findings. Effective schools research was born out of the controversy surrounding these findings.

Many of the subsequent studies designed to challenge and even refute Coleman’s report were conducted on low socio-economic urban schools that typically had a high number of students that spoke English as a second or even third language. The schools in these early studies were selected because their achievement results were better than otherwise expected given their socio-economic make up (Edmonds, 1979). The question then arises, does the efficacy of effective school characteristics hold true regardless of the socio-economic status (SES) and student culture, or are they baseline characteristics of the average school and have no real effect on high student achievement (Lamendola, 2002). American style international schools, utilizing curriculum materials and instruction similar to U.S. public schools, provide a unique venue to investigate this question as they also have culturally diverse student bodies, and a significant percentage of the international school students do not speak English as a first language. The similarities end there as the families who send their children to these atypical schools are classified as high SES and have high academic aspirations for their children.

This study seeks to determine if American style international schools exhibit a high degree of effective school characteristics. Drawing upon correlational methodology the study is also designed to determine if there are relationships between effective school characteristics, as perceived by the teachers and norm reference standardized test scores in this unusual set of schools.
Definitions

1. **High performing schools**: Schools where the majority of students score above the national average on norm referenced standardized tests are considered for this study as high performing. In international schools elementary and middle school students normally take norm-referenced tests such as the ITBS. High school students take the norm-referenced ACT and SAT. Students who opt to take AP or IB classes also take criterion references exams in each subject they choose. For this research, elementary / middle schools with average standardized test scores in grades 4, 6, and 8 above the 50 percentile based on U.S. norms and high schools with SAT average scores above the U.S. mean of 1026 were considered “High Performing”.

2. **Effective Schools**: The literature generally defines an effective school as one where students are academically successful, based on standardized testing (Edmonds, 1979). In fact, for several decades, the dominant measure of a school’s educational effectiveness has been the standardized test (Stemler, 2001). Yet, standardized tests do not assess many other pertinent factors, such as the perceptions of the staff, the students, or the parents. A number of characteristics have been identified in the literature that are commonly associated with “effective schools”.

3. **Effective School Characteristics** (as defined for this research)
   a. **Strong Instructional Leadership**: The principal is actively involved in the instructional process and develops instructional leadership in teachers. Teachers are recognized as the instructional experts and are given the authority to make appropriate instructional decisions. The basis for strong and effective instructional
leadership is rooted in the identification of educational challenges and the proposal of solutions by teachers and parents, as well as by the principal.

b. **Clear and Focused Mission:** Although the school adopts multiple goals, the goals to ensure academic excellence and to educate all students are nonnegotiable.

c. **Safe and Orderly Environment:** Respect is observed among all administrators, teachers, staff, parents, students and community members for people, property, and self. When students do not exhibit a level of respect which is appropriate to a safe and orderly environment and a positive learning atmosphere, they are guided toward understanding the inappropriateness of their action and what appropriate action is expected of them. This is accomplished in a cooperative effort by the student, parent, staff, teacher and administrator.

d. **Positive School Climate:** A positive physical and psychological environment is evident where the presence of strong, positive adult role models promotes respectful and nurturing interactions between and among adults and students.

e. **Climate of High Expectations:** All students are expected to achieve at high academic levels using established, measurable performance indicators. The standards emphasize conceptual understanding and the application of knowledge, skills, and processes.

f. **Frequent Monitoring of Student Achievement:** Student academic progress is measured frequently by an assortment of assessment methods. Instructional methodology, resources, and assessment measures are used by teachers and administrators to guide instructional planning and implementation.
g. **Emphasis on Basic Skills:** The school has developed grade-appropriate basic skills defined as the ability to read, write, employ mathematics and make use of higher-order thinking skills to a level where each student can function effectively in society.

h. **Opportunities for Learning are Maximized:** Very little instructional time is spent in non-instructional activities. Transitions are smooth and time is not wasted in undesirable digressions from the lesson. Co-curricular activities support the school’s instructional program.

i. **Parent/Community Involvement:** Parents are the first educators in the home. School personnel, parents, and community members are partners in all aspects of the educational program. Parents and community members are advocates for all children.

j. **Effective professional Development:** Professional development programs enhance teacher knowledge of subject content, improve the understanding of the academic, social, emotional, and physical needs of each learner and ensure that educators utilize appropriate teaching skills to enable students to meet or exceed their potential. Professional development is periodically assessed to evaluate its impact on teaching practice and/or student learning.

k. **Teacher Involvement in Decision Making:** Teachers are involved in the development and review of the school’s mission, goals and yearly plans. Proposals concerning curriculum, new or special programs, policy guidelines, budget and classroom management, are developed with the active involvement of classroom teachers.
4. **Student Achievement**: Level of academic achievement as measured by either norm-referenced or criterion-referenced tests.

5. **International Schools**: Non-profit American style schools located outside of the United States that are sponsored by the U.S. State Department’s Office of Overseas Schools. Typically 25%-35% of the student body in each school is composed of children of expatriate Americans. The remaining portion of the students usually represents 35-50 different nationalities. However, this make-up may vary widely from school to school.

6. **Expatriate Family**: Family whose parents have chosen to leave their native country to live and work elsewhere. The majority of the expatriate families that attend international schools move every 3-5 years as the demands of the father’s job dictate.

**Delimitations**

This study was delimited to the responses of the schools that were selected in the stratified random sample of ASOS sponsored international schools from March 2004 through June 2004. Responses from the population were obtained through a self-administered, web-based questionnaire solicited from the teachers in the schools selected. Standardized test scores were obtained from the school’s administrators.

**Limitations**

The following are identified in this research

1. The study will be limited to a stratified random sample of international schools sponsored by the U.S. Office of Overseas Schools.
2. Due to the difficulty in collecting data from students and parents in international schools, the questionnaire responses were limited to the teachers in each of the schools selected.

3. The questionnaire responses are based on the perceptions of the teachers working in each school.

4. As all schools do not offer the same standardized tests, comparisons were made based on the U.S. national average of a school’s scores on the standardized assessment(s) they normally use.

Assumptions

The specific assumptions of the study were as follows:

1. Although each school’s size and infrastructure varied, the assumption was that the stratified random sample selected both large and small schools and all grade levels from PK to 12.

2. The survey sample was assumed to be representative of the population of teachers working in international schools sponsored by the U.S. Office of Overseas Schools.

3. Teacher responses to the survey questions were assumed to be honest and truthful.

4. The survey instrument was assumed an appropriate vehicle to obtain information about the effective school characteristics in each school.

5. Collective teacher responses were assumed to be a suitable indication of the effective school characteristics at that institution.
6. Statistically comparisons of the four different U.S. norm referenced standardized tests for grades K-8, used by the international schools in this study were assumed appropriate.

7. To determine the standardized test scores at each school administrators were asked to complete a specific page on the website enabling this research to formulate grouping variables with which to compare the data. The assumption was that they filled in the data truthfully and correctly.

8. The assumption was that each administrator and teacher had access to the Internet including e-mail addresses and an Internet browser such as Netscape or Internet Explorer. Internet was the main communication link between the researcher, the respondents and the school administrators.

9. The use of electronic communications did not limit the potential responses from international schools teachers; rather the assumption was the internet swept away many of the previous obstacles to international school survey research.

Significance of the Study

Research and experience have shown that student achievement is often closely aligned to the socio-economic status (SES) of the family, i.e. the higher the SES the higher the level of student achievement (Coleman et al., 1966; Hanushek, 1986; Jencks, 1972; Lamendola, 2002; The Plowden Committee Report, 1967). Many observers have identified schools with low SES that have been successful in educating their students (W. B. Brookover, Beady, Flood, Schweitzer, and Wisenbaker, 1979; Edmonds, 1979; Madaus, Airasian, and Kellaghan, 1980 and others). The original purpose of the “Effective Schools” research was to identify the crucial
factors in education that promote academic achievement, especially in low SES schools, and then apply these characteristics to schools that were less effective (Edmonds, 1979; Weber, 1971). Yet very little research has been done that correlates effective school characteristics with high performing schools that have students from families with middle to high socio-economic status. Therefore, we do not have an accurate depiction of the relative efficacy of the “effective practices” or of the ways these practices work together to generate desired outcomes. For the person who asks, “what combination of schooling conditions and practices holds the greatest promise for improving student learning?” we have no scientifically provable or globally agreed upon answer (Cotton, 2000).

This study will be valuable to a wide range of audiences including educators and administrators both in the U.S. and in the international school arena. For instance, if a particular characteristic, such as, frequent monitoring of student progress, is correlated with school effectiveness, the finding could have immediate implications for teachers and administrators. If, however, these variables are not found to be related to school effectiveness in international schools, this conclusion will be equally significant. In particular, the study will be of importance to school effectiveness researchers around the world in that it will add to the knowledge base of school effectiveness by inserting the element of American style overseas international school comparisons that represent a unique set of variables that could not be studied in any other venue.

It must be kept in mind however that, “Questions about values in education, the purposes of schooling, the quality of students’ educational experiences, and of what constitutes a ‘good’ school rightly remain the subject of much argument and are unlikely to be resolved’ (White and Barber, 1997).
Research Questions

1. Are there effective school characteristics that are common in high performing overseas international schools?

2. What are the most important effective school characteristics of an effective international school based on the perceptions of teachers?

3. Are there effective school traits that are more crucial to higher student achievement in International schools?

4. Is there a correlation between the international schools that display a higher degree of the characteristics of effective schools and student achievement as measured by standardized tests?

Population

International education is a form of schooling experienced by a number of children who live abroad due to the professional mobility of their parents. The aim of international education is to provide English-language academic instruction to a wide variety of students living in a foreign environment. International schools focus on educational excellence while fostering the development of the whole person and are committed to academic excellence and to preparing students to be global citizens (Brewster, 2002). There are approximately 300,000 students attending 536 international schools in over 150 different countries ("The ISS Directory of International Schools 2003-2004," 2003, p.xi). These overseas schools provide for the educational needs of expatriates and locals who select to educate their children in English speaking schools. For thousands of dependent children from all over the world, international
education means a multi-cultural education, delivered in English, in a country that is not their own.

There are a variety of international schools; church associated: proprietary; company; DODDS (United States Department of Defense Schools); United Kingdom Ministry of Defense schools; and governmental schools from Japan, Germany, France, Australia and others. Schools associated with a religious organization have two purposes, the education of the dependents of missionaries or the education of local children aided by the church mission. Some international schools, usually referred to as “proprietary”, are profit-making establishments owned and operated by one person or small group of owners. Large businesses overseas may establish schools for the children of company employees. Company schools are usually situated in isolated regions of the world and are set up by a corporation as a way of attracting and retaining a competent workforce. U.S. Department of Defense schools and U.K. Ministry of Defense schools are built to meet the needs of military families and some research has indicated that there is a high level of student success at these schools (Smrekar and Owens, 2003). Government schools, i.e. the Japanese School, or the German School are established for those expatriates who desire an educational system that is the same as the one in their home country.

The majority of international schools are nonprofit, non-denominational, independent schools, with multi-national student bodies, established on a cooperative basis by Americans and other English speaking expatriates residing in foreign countries. The educational program at these schools may have an American focus, but a sincere effort is made to meet the educational, social and cultural needs of the multi-cultural student body.

Many American style international schools are located in the capital city of the country or other large population centers. Most international organizations and businesses also have their
headquarters in the commercial and industrial centers. Embassy personnel or those expatriates working for government agencies are also in the same locale, along with the Japanese, French, British, and Australian international schools. The size and extent of the international school faculty and facilities fluctuate in proportion to the magnitude and makeup of the people the school serves.

There were estimated to be between 50 and 100 international schools worldwide in the early 60’s. That number has now grown to well over 1000 schools (Miller, 2003). Typically 25 – 30% of the students of American sponsored international schools have American passports. Depending on the laws of the country where the school is located, from 5-10% of the student body will be from higher income local families who desire an American style education in English that will lead their son or daughter to college in the U.S. The balance of the student population typically comprises 35 – 50 different nationalities. Expatriate families whose children attend international schools are well educated and extremely mobile. They characteristically move from country to country every 3-5 years as their job dictates.

Many of the non-profit American style international schools receive some small assistance and support from the U.S. government under a program administered by the Office of Overseas Schools of the U.S. Department of State. Presently the Office of Overseas Schools is assisting 185 schools in 132 countries (Miller, 2003). The international schools receiving aid from the American State department are referred to as American Sponsored Overseas Schools (ASOS). The objective of that support is to help provide an education to those American children living abroad that is at least equal to that offered to students educated in the U.S. Although the level of support and the number of American Dependents in ASOS schools varies widely, the curriculum is usually more “American” oriented with many of the textbooks and
educational materials coming from the U.S. In the last 20 years more and more schools have embraced their international, multicultural make-up to enhance the educational program for all students, including U.S. dependents. Data collection for this research was focused on this type of international school.

Most ASOS schools are private, non-profit institutions, governed by a school board elected from the multi-national parent community. On average, tuition covers at least 95% of the operating expenses of an international school. This revenue structure normally limits the student body to families who receive education benefits from their employers or to upper-income host country families. Ninety seven percent of the graduates of American style international schools plan to go to college ("The ISS Directory of International Schools 2003-2004," 2003). The vast majority of those students go to colleges and universities in the U.S. At the beginning of the 2002-2003 school year student enrollments in international schools sponsored by the Office of Overseas Schools totaled 98,098, of whom 27,632 were U.S. citizens (Miller, 2003).

A large portion of the teachers in American Sponsored Overseas Schools are U.S. Citizens. American faculty are hired from the local expatriate community or hired directly from the U.S. Although the core of the faculty is U.S. trained, there are teachers from other nationalities, trained in either the educational systems their countries or the U.S. system. Out of 12,106 teachers and administrators employed in ASOS sponsored overseas schools, 5,463 are U.S. citizens and 6,643 are foreign nationals (Miller, 2003). For the English speaking expatriate families with high school aged children, the American/International School is frequently the only option for those parents who do not want to send their sons or daughters to boarding schools in the U.S. or Europe.
Many of the American/International schools, as well as offering Advanced Placement and college preparatory courses for students interested in attending American universities, now offer the International Baccalaureate (IB) program to satisfy the needs of the multi-national community while providing an advanced curriculum for university bound American students (Duevel, 1999). The introduction of IB into American schools began as a way of catering to the multi-national students. However, many American students also take advantage of this rigorous college preparatory program to enhance their competitiveness in university admissions.

Variety is one of the basic characteristics of American-sponsored overseas international schools. They range from tiny schools, such as the American Embassy School in Reykjavik, Iceland, with 13 students, to large overseas schools, such as the Singapore American School with 2,923 students. School facilities range from rented homes to multi-million dollar campuses, although increasing numbers of overseas schools now occupy purpose-built facilities. Very few schools have boarding facilities (Miller, 2003).

An outstanding characteristic of most American-sponsored schools is the use they have made of their location abroad to provide foreign language and local culture programs (Cockburn, 2002). The characteristics and range of instructional materials are usually excellent and the quality of technology programs in international schools overseas usually exceeds that of schools in the United States (Foster, 2001).
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Background

The parents in each American style international school come from a wide variety of cultural backgrounds. These international school parents expect educational excellence that they define not only by high academic achievement, but by well-rounded offerings that include strong fine arts and sports programs. Standardized test scores are very important to the parents as they generally believe that high scores indicate effective instruction and lead to acceptances at the most selective universities in the U.S. Therefore there is a major emphasis on academic achievement.

Many parents are active participants in the school’s social and support structure. The vast majority of the parents in the many international schools are vitally interested in their
children’s education. Generally the father of the expatriate family is the primary breadwinner. However mothers are also well educated and often held positions of responsibility in corporations and civic organizations before coming to their husband’s overseas assignment. These professional women have a variety of skills and experiences that they readily share with the international school, the expatriate community, and the local charity organizations.

Usually only 20 to 30% of the international school expatriate population are from the U.S. The other expatriate families come from countries in Europe, North America, Australia / New Zealand and Asia. These international families are also highly educated and expect strong academic programs. They also expect their children to attend university, often in the U.S., and believe that by giving their child the opportunity to gain a high level of fluency in written and spoken English, if they were not English as first language speakers, they will give their sons and/or daughters a strong advantage in their future careers.

These high academic expectations lead to constant discussion of the school’s activities. School policies and activities are conversational topics whenever the international community gathers socially. Therefore, the international school provides a common bond between various cultural groups as the school is often at the heart of the expatriate community.

The importance of a strong instructional leader is a controversial topic in effective schools research (Lezotte, 1992c) and many parents and teachers are concerned with the manner in which international school administrators fulfill their role. Although the teaching methods and curriculum of the international school are important, community feelings are often aroused by the methods employed to handle a situation with a controversial teacher or an unruly student. The school administrator is a very important factor in maintaining a cohesive and productive working unit in an international school situation.
An administrative position in an international location is stressful. One major cause of anxiety is enrollment fluctuation and the subsequent budget uncertainties. The size and social structure of the expatriate communities is very unstable as international families often move to a new post every three to four years thereby creating a high degree of student turnover. Typically 25 to 35 percent of the students in each grade level are new each year and new students often arrive daily.

Each year international businesses come into the country bringing new expatriate families with them. Economic downturns or a change in the business climate often cause businesses to downsize or to leave altogether. As a successful international business matures local staffs are trained to take over the positions of some of the expatriates that were part of the start-up operations. These local employees, as a rule, do not have the same education benefits that the expatriates enjoy and therefore their children may not attend the international school. Embassy personnel also rotate every three to four years and the number of embassy children from English speaking and non-English speaking countries fluctuate as the number of embassy dependents change.

Often these changes in enrollment whether up or down, occur during the summer, after the school schedule has been built and teachers have been recruited and hired for the upcoming school year. These uncertainties create numerous demands on the administration and faculty and make long-term budgeting and ordering of supplies challenging due to the difficulty of estimating yearly enrollment and the requisite staffing requirements.

This uncertainty concerning enrollment in international schools is growing. In an online article John Nicklas (2001), President of International Schools Services states: “With dynamic political and economic forces at work in the world, the broader questions regarding the future
directions that international education will take are a bit more of a crapshoot. Uncertainty has become a given in projections concerning the potential structure of international education.”

The stability of the student body was shown by Mullis, I. Jenkins, F., and Johnson, E.G. (1994) to be a significant predictor of school effectiveness in mathematics at the fourth grade, such that effective schools were more likely to have students who had not changed schools frequently. However, international school student populations, as illustrated previously, can be, and frequently are highly unstable.

The school is typically responsible for the expatriate teacher’s housing, transportation, and shipping. Teachers hired overseas often make complicated demands on the school and the administrators. Their requests go far beyond professional classroom needs to concerns about housing, health matters, local transportation and extended leave.

The location of international school, and the political climate of the country in which it is situated, also subject the administrators, teachers, parents and children to additional stress. The availability of good medical care and other health matters, combined with terrorist threats in some cities is also a concern. Other challenges may stem from the conflicting cultural demands of parent groups who had their own ideas about the purpose of the school and how it should be managed.

Research indicates that in comparison to stateside schools, educators in overseas schools are more focused on college preparation and more supportive of language instruction (Gillies, 2001). Typically most of the students are college bound and proficient in more than one language. The teachers are highly qualified with more than 50% holding a master's degree or higher. Teachers have higher job satisfaction than their counterparts in the U.S., although some staff may find it difficult to adjust to life abroad.
With their successful track record, given the difficulties that must be overcome, can American style overseas international schools, with diverse enrollments, academic distinction, large EFL enrollments and multicultural emphasis serve as a model for twenty-first century schools? Are there definable characteristics unique to international schools that can be utilized by other schools to become more effective no matter their location or socio-economic status?

Over the past 30 years, thousands if not hundreds of thousands of schools, public and private, rich and poor, have used effective schools characteristics as a basis for judging their “goodness” or effectiveness. Yet, the vast majority of research on effective schooling was, and still is, centered on the premise “How do we educate the poor?” Are these characteristics actually a positive blueprint for all schools? Are they appropriate for the international schools? Is there more to effective schools research that needs to be understood in order to use the knowledge more effectively?
CHAPTER TWO: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Introduction

In this chapter, the researcher has attempted to gather a reasonably broad review of the literature on Effective Schools Research, American style international schools and overseas expatriate life in order to develop a wide-ranging conceptual framework for this study. This framework is vital to the data analysis and to the explanation of the many variables which affect both student achievement and effective school characteristics in the unique environment of the international school.

From the conclusions of the Coleman Report (1966) 37 years ago that schools made no difference in the educational achievement of students and that the socio-economic level of the child’s family was the greatest, in not the only, factor in their academic success, there is now a general acceptance that schools can and do affect a child’s academic progress. There is also a general societal consensus that there are discernible characteristics in schools that more positively affect student achievement. Therefore, the job of education policy makers, administrators, and teachers has been to improve all schools, especially the more ineffective schools, by spreading this information to educational institutions throughout the world (Teddle and Reynolds, 2000).

There are three main components of school effectiveness research: School Effects Research, School Improvement Research and Effective Schools Research, (Gray, 2001). The present study focuses on “Effective Schools Research”. Effective Schools Research has looked at the policies, practices, and characteristics of effective schooling by examining educational institutions, usually low SES elementary schools, which are more successful at raising student
achievement. Effective Schools Researchers have tried to identify the characteristics of those schools that were deemed ‘effective’ in order to help more ‘ineffective’ schools improve student achievement.

Theoretical and Societal Basis

Historically, the definitions of a good, i.e. effective, school depended not only on a critical review of its operation, but also on its educational goals. In recent decades debate has often focused on whether governments set up school systems as a way of controlling access to knowledge, as a way to promote democratic progress or as a way to prepare a nation’s work force.

Experience and observation would suggest that even the most committed politicians that enact the laws to support and regulate education have mixed motives. Changing the entrance age, lowering or raising graduation requirements, adding standardized testing, establishing a core curriculum or requiring new courses can be, and often is, politically motivated. Consequently the definition of an effective school is therefore tied to the numerous educational expectations of the local and the national community (Silver, 1994). Edmond put it succinctly in his article “Effective Schools for the Urban Poor” (1979) when he stated, “There has never been a time in the life of the American public school when we have not known all we needed to know in order to teach all those whom we chose to teach (p.20).”

As effective schools research studies increasingly used standardized assessments to determine school success, the age-old questions continue to be:

1. What is worth knowing?

2. How will we know when students know it?
3. Who has the legal and moral authority to decide these questions? (Lezotte, 1992d)

And, as the standards movement swept the nation Lezotte (1992d) acknowledged that Americas have, “more or less” a national curriculum. Yet, many stakeholders disagreed about whether schools should teach “the basics and the classics” or prepare young people for high-tech work with its own “basics” of technological knowledge.

*Effective Schools Research*

The modern-day search for ‘effective’ schools is a result of social and political concerns of the 1950’s and 60’s in a number of advanced industrial countries (Silver, 1994). The vast majority of this research, beginning with the Coleman Report published in the U.S. in 1966 in response to the Civil Rights Act of 1964, has dealt with high poverty schools. President Lyndon B. Johnson's administration released the two-volume report, *On Equality of Educational Opportunity* (Coleman et al., 1966), that is widely regarded as the one of the most important education studies of the 20th century,. In 1999, Dr. Albert Beaten stated, when speaking about The Coleman Report, ”I don't think there's anything close to it. It changed the way we thought about the whole issue of equality of educational opportunity” (Hoff, 1999, pg. 33). Beaton helped analyze the data for the Educational Testing Service. This seminal and controversial work, written by the sociologist James S. Coleman (1966) of Johns Hopkins University, proposed that family background and the socioeconomic makeup of the student body are the principle, and possibly the only, predictors of successful schools.

“It would be an understatement to claim that the research design and findings of Coleman's 1966 report, Equality of Education Opportunity, have impacted social science research, the field of education, and the policy arena. The Coleman report not only
reshaped the ways in which social scientists design and conduct research but it transformed how educators think about the purpose of education and significantly informed the policy arena” (Wong, 2004, p.123).

Coleman’s et al. (1966) research followed the diatribes of Admiral H.G. Rickover against the spirit of Dewey’s progressive education and the perceived failures of the American education system after the launch of Sputnik in 1957. Rickover was deeply concerned that the Soviets were going to overwhelm the “Free World” after their technological feat of beating the U.S. into space. Rickover believed that the math and science courses of the 1950’s had failed to provide the U.S. industrial and military complex with competent engineers. He particularly blamed Dewey’s progressive education model for what he believed was the steady deterioration of secondary-school curricula (Rickover, 1959).

In Britain, the public debate of the 1950’s and 1960’s pointed to the overwhelming restrictions placed on the population by the ingrained social order. The divided public education system that had taken shape in the nineteenth century seemed to clearly limit educational opportunities based on class (Reay, 2002). The subsequent fight by British educators and politicians to reorganize schools reinforced the logic that schooling practices must be important in determining the social and economic future of children. The Plowden Committee Report (1967), “Children and Their Primary Schools”, stressed the powerful impact of parental background, expectations and attitudes on children’s educational performance, but the report did not undermine the British school systems as significantly as Coleman’s conclusions had in the U.S. the year previously (Silver, 1994). In the shades of Admiral Rickover, a series of ‘Black Papers’ written by C.B. Cox and others during the late 60’s through the mid 70’s, held
‘progressive education’ responsible for the lowering of educational standards in the U.K. (Cox, Boyson, and Amis, 1975; Cox, Dyson, and Amis, 1968).

Coleman’s paper, “Equality of Educational Opportunity”, examined the concept of education in terms of its meaning to society. This federally sponsored ground breaking report involved 4000 randomly selected elementary and secondary schools, 570,000 pupils, and 60,000 teachers from across the United States. His research conclusions stated that schools did not really make a large difference in the educational success of its pupils. He stated that the socio-economic status of the family was the key indicator of school success. Using regression analysis, Coleman (1966) determined that “schools bring little influence to bear on a child’s achievement that is independent of his background and general social context” (p.325). In his analysis he contended that only 5-9 per cent of the total variance in individual student achievement was uniquely accounted for by conditions in the school while almost 35 percent of the variance in individual achievement was attributable to the differences between the schools. Coleman stated that the large variation range was due to disparity in the between schools effect for different cultural groups: there was more variance between schools in the achievement scores of Mexican-Americans, American Indians, Puerto Ricans and Afro-Americans in the southern states. While Afro-Americans in the northern states had less variance between schools in their scores (Coleman et al., 1966).

Coleman (1967) summarized the learning problems of urban schools by concluding, “Minority groups are consistently exposed to schools with a greater average number of problems than are whites, including property destruction, impertinence to teachers, racial tension, stealing, physical violence, drinking and the use of narcotics.” He asked the question, “Whose obligation
is it to provide equal educational opportunities or does it have inherent contradictions and
conflicts with the prevailing social organization of the population” (p.193).

The Plowden Committee Report, (1967) produced by the Central Advisory Council for
Education in England and officially titled ‘Children and their Primary Schools’, was the United
Kingdom’s counterpart to the Coleman Report. The Plowden Report reached a similar
conclusion as to the importance of schooling when compared to the influences of the family
structure and socio-economic status. The report stated, ‘Differences between parents will
explain more of the variation in the children than differences between schools’ (p.35). Parental
attitudinal factors, in fact, accounted for 58 percent of the variance in student achievement in this
study. (Teddlie and Reynolds, 2000)

In 1972 Jencks combined the data from the Coleman report with data from several other
research studies and concluded that student achievement or economic success in later life did not
depend on schools. In support of Coleman’s findings they stated that the research lead them to
the conclusion that success in school and success in their future economic life was largely
determined by the characteristics of their home environment (Jencks, 1972).

A number of educational researchers cried foul and sought to counter the findings of
Coleman (1966), Plowden (1967), and Jencks (1972). They believed that the estimation of the
size of effects of the school was questionable and that the statistical analysis was flawed.
Researchers subsequent to the Coleman Report tried to improve their research design and
analytical processes in order to obtain more reliable results, and to show that schools were more
effective than the Coleman Report concluded.

In his book entitled ‘The Impact of School Resources on the Learning of Inner City
Children’, Murnane (1975) concluded that both classroom and school assignment had a major
effect on student achievement. He found in his research that the reported student achievement
scores increased significantly when classroom and school assignment were added to the effect of
prior achievement and student background variables. Murnane believed that Coleman’s decision
to enter the variables of the home situation into the regression equation before the school
variables ‘biased the analysis against finding the school variables important’ (Murnane, 1975,
p.9).

Summers and Wolfe (1977) in their study of elementary students in Philadelphia
concluded “the empirical investigations have failed to find potent school effects because the
aggregative nature of the data used disguised the school’s true impact” (pp.652). Others believed
that the using of norm referenced tests to measure school achievement was less sensitive to the
school’s overall effect on student achievement. Madaus and his colleagues instead used criterion
referenced tests and concluded that school and classroom factors explained a larger proportion of
the variance (Madaus et al., 1980). Payne and Biddle (1999) contended that the Coleman
Report “used flawed procedures for statistical analysis, and these had generated falsely inflated
estimates for the effects of home-background factors and falsely deflated estimates for school
effects” (pg. 5).

Brookover and Erickson (1975) believed that school climate could be a powerful
predictor of student achievement. In their study of a random sample of elementary schools in
Michigan (n=68) they were the first to use simultaneous principal, teacher, and student
questionnaires that looked at a number of climate variables. They found a significant correlation
between climate factors and student achievement leading to their conclusion that the school does
have a significant effect on student achievement when the actual school variables that have the
greatest effect are studied.
Twenty years after the Coleman Report however, economist Erik Hanushek (1986) summarized the results of 112 research studies which investigated school inputs comparable to those Coleman considered, i.e. per pupil expenditure, school facilities, teacher years of experience, and their correlation to student achievement on standardized tests. In a report more than two decades later, his conclusions were similar to Coleman’s. He found that there is little verifiable evidence that increases in expenditure at the school level has a dependable influence on student achievement.

The results are startlingly consistent in finding no strong evidence that teacher-student ratio, teacher education, or teacher experience has an expected positive effect on student achievement. According to the available evidence one cannot be confident that hiring more educated teachers or having smaller classes will improve student performance. Teacher experience appears only marginally stronger….There appears to be no strong or systematic relationships between school expenditures and student performance (Hanushek, 1986, p.1162).

Concerns with External Validity

In response to the reports that schools made little difference, many researchers looked for high poverty schools that seemed to be educating their students well and attempted to identify the characteristics of these “outlier” schools. Teddlie and Reynolds (2000) contend that studies that use the outlier design (e.g. the upper 20 percent and lower 20 per cent of schools) are more likely to demonstrate the effects of the school upon student achievement. They argued that outlier studies focus on that part of the population where there is the most explainable variance and, due to the smaller sample size of the design, outlier studies are more apt to incorporate
process variables. Teddlie and Reynolds contend that process variables are better and more powerful school level factors than the traditional measures of Coleman’s time. Therefore randomly sampled schools would be less likely to demonstrate school effects than outlier studies using process variables.

The prominence of case study research of outlier schools during the 1970’s and 1980’s often led investigators in the field to overlook the issue of external validity. Many policy makers were convinced that they could develop a blueprint for effective schools that would have a large positive impact on student achievement. However, they soon realized that the findings from these case studies, conducted mostly in urban and impoverished environments, were not as successful in other contexts. Many researchers have invited further study into uncovering appropriate ways in which to generalize the findings of specific studies. They have recognized that generalizability is one of the most important aspects in the path to school improvement (Teddlie and Reynolds, 2000).

When reviewing the characteristics of effective and successful schools, it should be understood that there is no simple blueprint that fits every school (Purkey and Smith, 1983). There are commonalities in effective schools research, and effective schools researchers believe that repeated results are the basis for clear and corroborated ideas that can assist any school in its quest to become more effective institution. (Davis and Thomas, 1989). Purkey and Smith (1982) also warned, “There are many possible approaches to turning an academically inferior school into a more successful one”(p.70). This is a warning that many researchers reiterate. There is no recipe, nor should effective schools characteristics be used as a recipe to follow since external and interrelational factors can and do have a significant effect on school and student performance.
Determining School Effectiveness

Effective schools research is now essential to the professional educational dialogue in many nations. Thirty years ago there was grave doubt as to the ability of the educational system in many countries to improve the learning process and academic achievement of a large group of the world’s children. The home environment was then regarded as the greatest determining factor in a student’s ability to be successful in school and in life. Now, the conviction that effective schools can have positive results on student achievement is generally accepted, though not always supported by research, within the governmental, social and educational communities of many countries.

One of the principal debates surrounding effective schools research is the attempt to define a ‘good’ school? Often parents judge a school by the atmosphere in the classroom or by personalities of the teachers and administrators, depending upon one’s beliefs about the purpose of school, a number of criteria that can be used to judge goodness (Silver, 1994).

They include subjective appraisals such as:

- are the students happy
- are they emotionally and physically secure
- are they academically challenged, physically fit, morally upright, and
- are they prepared for life as constructive citizens

Parents also include objective measures including:

- standardized test scores
- grades
- academic preparation for college
The judgment as to how ‘good’ a school is often in the eyes of the beholder. Whereas the term good schools automatically imply that there are ‘bad’ schools, the term effective is considered by researchers to be more focused. Edmonds (1979) introduced the term effectiveness into the literature to differentiate and concentrate his research on the measurable academic achievement of students. This definition has also been criticized by many as being too narrow and leads to the questions, effective for whom and effective for what (Ainscow, 1991)?

School effectiveness is a complicated, multifaceted construct that consists of many variables. David and Shields (1991) maintain that enhancing school effectiveness is "more complicated than researchers and policymakers imagine "(pg. 28). Many qualitative studies have been designed to operationally define the construct of effectiveness, but most research studies use quantitative measures of students’ achievement, as determined by standardized tests, as the dependent variable (Stemler, 2001).

Whether we professionally agree or not, in this age of increasing accountability, standardized scores and other numerical measures have become key indicators of a school’s success for both the public and for governmental agencies at both the state and national levels. Most school effectiveness studies have focused on academic achievement in terms of basic skills in reading and mathematics (Goodlad, 1984). Effective or high performing schools are often identified as those whose mean achievement on standardized tests, whether criterion or norm-referenced, place them at or above grade level when compared to international, national or even local norms.

Good schools have been recognized by their compliance to precise principles of student control and conduct, scores on standardized tests or, in the U.S., on the number of high school
graduates and the number of graduates who attend college. However, the question remains, are the characteristics of effective schools related to high performing results on standardized tests or has the definition of effective schools, i.e. high performing/high-poverty, really given us the keys to effective schools for all student groups? “When good students go to good schools, how are we to know what accounts for the superior performance that is likely to be observed” (Silver, 1994)?

Statistical Attempts at Determining Effectiveness

Historically, what exactly constitutes an ‘effective school’ has varied across studies. Some studies have simply examined mean student achievement across schools and identified schools with the higher mean student achievement as ‘effective’. This approach is only defensible, however, when the effect of the schools is independent of the pupil background. “If the value added depends, say on students’ socioeconomic status, the effect of a particular school cannot be described without first specifying the SES of the student to whom the effect applies” (Raudenbush and Willms, 1995, p.311).

Purkey and Smith (1982) reviewed effective schools literature and determined that the lack of empirical data precluded them from performing a quantitative synthesis and grouped the research into four categories; outlier studies, case studies, program evaluation studies and “other” studies. Most of the outlier studies they examined utilized regression analysis of school mean achievement scores, controlling for the socio-economic status of the student body. To determine the “residual” mean, the expected mean achievement score was calculated for each school and then was subtracted from the actual achievement level to determine the most positive and the most negative, the “outliers” that represented effective and ineffective schools. Surveys to identify school characteristics were then used to determine the reason for the outcomes.
A review of the research by Purkey and Smith (1982) found significant differences in studies in New York, Maryland, Michigan and Delaware. For example, the Maryland study (Austin, 1978; Purkey and Smith, 1982) concluded that effective schools are characterized by strong instructional leadership, while Spatz and others (1977) found that effective schools had principals who emphasized administrative activities.

They also concluded that outlier studies commonly suffered from three weaknesses.

1. Narrow and relatively small samples suggesting that the discriminating characteristics defining high and low outliers are probably chance events.

2. Inappropriate comparisons. They suggested that when comparing positive outliers, “effective schools”, with average schools would be a more appropriate assessment.

Most of the eight case studies they reviewed investigated urban elementary schools in the U.S. However, one study, “Fifteen Thousand Hours: Secondary Schools and their Effects on Children”, (Rutter, 1979) examined 12 inner city secondary schools in London.

Purkey and Smith (1982) were critical of many of the research designs in both the U.S. and the U.K case studies. When examining the U.S. research they stated, “The inherent weaknesses of the case study approach and the small samples seem a frail reed upon which to base a movement of school improvement” (Purkey and Smith, 1982, p.25). They also felt that Rutter’s U.K. findings particularly suspect. They argued that the design should have controlled for socio-economic status as the more effective schools in their study had higher percentages of students from middle-income families. To further emphasize their concern they noted that only two of Rutter’s twelve schools could be considered academically effective.

They identified their third category of school effectiveness research as program evaluation. After looking at six evaluations that examined school level variables they concluded
that the program evaluations were methodologically stronger than the outlier and case study research. Nevertheless, they also noted, even though they had reservations about the other research methods, the characteristics that were identified by program evaluation were remarkably consistent with the outlier and case studies (Purkey and Smith, 1982).

Their fourth category, labeled “other studies”, discussed Coleman’s (1981) more recent comparative study of public and private secondary schools and the National Institute for Education’s “Safe School Study”. The methods of research used in “other studies” were not criticized or even discussed in the article. However, they acknowledged, “…that the implications of this study (by NIE) for building academically effective schools is intriguing.” (Purkey and Smith, 1982, p.68).

Given the general definition effectiveness, determined by using measurable, objective instruments, the researcher may conclude that a school is effective or ineffective if the findings from different measures of school effectiveness are consistent in all the grade levels and in all subjects. However, if the school seems to be effective when reviewing standardized math scores, but not effective with regard to standardized reading scores, then the overall effectiveness of the school is questionable.

It is also difficult to combine all grade levels in a study as the greater use of subject level specialists in departmental organization between elementary and secondary schools can affect the analysis. In most cases, research studies from the United States, the United Kingdom and the Netherlands do point to a moderate level of reliability of school effect across measures of achievement in mathematics, reading, and writing and the elementary level. (Teddlie and Reynolds, 2000). However, after analyzing secondary level data in the Netherlands, Luyten (1994) concluded that secondary school datasets were only moderately correlated and suggested
that the data (at the secondary level) should be reviewed separately, subject by subject. However this is often difficult to do and most educators would ask about the average SAT, ACT or IB score when attempting to determine effectiveness.

**Defining Effective School Characteristics**

During the mid 1970’s in the United States, Ronald Edmonds, then Director of the Center for Urban Studies at Harvard University refused to recognize Coleman’s *On Equality of Educational Opportunity* report as definitive. Although he acknowledged that family background does make a difference he and others believed that schools and teachers could and did make a significant impact on student learning and could therefore impact socio-economic status of the children as they matured into adulthood. His research team set out to find schools where children from families of low socio-economic status were academically successful (Comer, Edmonds, and 1989).

Edmonds project, “The Search for Effective Schools,” began by asking if there are schools that are instructionally effective for poor children. Using pupil performance data from schools in Detroit’s inner city which served predominantly poor and minority students, his research looked for schools that seemed to defy the odds by scoring higher than expected on achievement tests, the “outlier” schools. The researchers defined an effective school in Detroit as one that was at or above the city average in math and reading on the Stanford Achievement Test and/or the Iowa Test of Basic Skills (Edmonds, 1979).

After his analysis of successful Detroit schools, Edmonds stated what he believed were the most concrete and essential characteristics of effective schools:

1. Strong administrative leadership
2. A climate of expectation in which no child is permitted to fall below minimum levels of achievement.

3. The school’s atmosphere is orderly without being rigid, quiet without being oppressive, and conducive to instruction.

4. Pupil acquisition of basic skills takes precedence over all other school activities.

5. When necessary, school resources are diverted from other business to further the fundamental objectives.

6. Pupil progress is frequently monitored using various types for assessments from classroom quizzes through criterion-referenced standardized measures.

His conclusion differed significantly from Coleman. He found instead that “The large differences in performance between the effective and ineffective schools could not be attributed to differences in the social class and family background of pupils enrolled in the schools” (Edmonds, 1979, p.21).

In the same issue of “Educational Leadership” in which Edmonds article appeared, Ralph Scott and Herbert J. Walberg (1979) took issue with Edmond’s broad statement. They argued, “The student as an individual, the school, and the home are like a three-legged stool. It is as strong as its weakest leg ……… Therefore, we must part company from Edmonds and others to the extent that they single out schools alone for improvement” (p.24). In an article written in 1982 Edmonds conceded that the family is probably critical in determining whether or not students flourish in school while he continued to maintain the importance of effective school characteristics in the success of students, especially from low SES families (Edmonds, 1982).

Based on their review of previous research, Purkey and Smith (1982) declared that two elements appeared to be common to all effective schools:
1. High expectations for student achievement

2. Strong instructional leadership on the part of the principal or another staff member.

In addition 6 other elements were common in most of the studies they reviewed:

1. Well-defined school goals and emphases

2. Staff training on a school-wide basis

3. Control by staff over instructional and training decisions

4. A sense of order

5. A system for monitoring student progress


They went on to say, “The data indicate that school-level factors can promote learning in the classroom. By studying academically effective schools we can identify characteristics that together create a school culture conducive to student achievement.” (Purkey and Smith, 1982, p.68).

In a classic effective school’s study in 1978-79 Brookover, W. B., Beady, C., Flood, P., Schweitzer, J., and Wisenbaker, J. (1979) complemented their statistical analysis of a random sample of 68 Michigan elementary schools with case studies of four low SES schools. In all four schools, two high achieving (scores above the sample mean), one primarily white and one primarily black, and two low achieving (scores below the sample mean), one white and one black, the researchers used classroom observations and interviews with participants to gather their primary data. The schools were all in urban settings and each matched pair had similar racial composition and similar achievement levels, either high or low.
The researchers found eight areas that seemed to be determinates of achievement. The two high achieving schools reflected the following characteristics (Brookover et al., 1979; Good, 1986):

1. Time on task was emphasized.
2. All students were expected to learn.
3. Teachers had high expectations for student achievement.
4. Reinforcement practices were appropriate and rewarded good work.
5. Appropriate grouping procedures, with movement to higher groups the norm.
6. Teaching games that emphasized team learning were used regularly.
7. The principal was actively involved in academic matters.
8. The teaching and administrative staff was strongly committed to the students.

As discussed previously, while a number of researchers conducted effective schools research in U.S. elementary schools, similar research was being conducted in secondary schools by a team of researchers in the UK (Rutter, 1979). Their independent findings were published in America in 1979 in the book “Fifteen thousand hours: Secondary Schools and their Effects on Children”. However, there is some question as to the validity of the findings as their research did not control for socio-economic status, and they tried to generalize from a sample size of only 12 schools (Cuttance, 1982). Yet, the school attributes that they identified were virtually indistinguishable from those found in effective schools research in the U.S.

Lawrence Lezotte’s (1990) research also identified seven traits of effective schools.

1. Strong Instructional Leadership
2. Clear and Focused Mission
3. High Expectations
4. Frequent Assessment/Monitoring of Student Achievement

5. Maximum Opportunities for Learning

6. Parent/Community Involvement

The one correlate that was found to be most controversial was strong instructional leadership. Lezotte (1992c) quotes Ron Edmonds when he answers the questions and criticisms surrounding this characteristic.

“Ron Edmonds often said, ‘there may be schools out there that have strong instructional leaders, but are not yet effective; however, we have never yet found an effective school that did not have a strong instructional leader as the principal’” (p.14).

Lezotte (1992c) goes on to explain why he believes that strong instructional leadership is one of the more controversial characteristics of effective schools research.

A common misunderstanding is that strong instructional leadership means the principal runs the school and teachers like a tyrannical slaveholder.... Effective leaders lead through commitment, not authority. People follow because they share the leaders' dreams, not because they are afraid (p.15).

Effective schools research does not imply the principal supplants the teacher. The definition of instructional leadership is that the principal effectively and persistently communicates the mission of the school. The principal, according to the research, "understands and applies the characteristics of instructional effectiveness in the management (not the delivery) of the instructional program" (Kellison, 2001, p.1)

Some researchers found that the effective school characteristics did not correlate with student achievement levels. Using 1,100 public schools representing 7,407 students for his
analysis Zigarelli (1996a) collapsed the effective school variables into 6 constructs and each construct was empirically tested on student achievement level using the National Educational Longitude Study for 1988, 1990, and 1992. The 12th grade battery of examinations was used as the dependent variable. He collapsed the effective school correlates into:

1. Employment of quality teachers
2. Teacher participation and satisfaction
3. Principal leadership and involvement
4. A culture of academic achievement
5. Positive relations with the central school administration
6. High parental involvement

Using a regression analysis of the data and controlling for student effort (hours of homework and teacher perception), student ability (pretest score, academic track), student demographics (race, sex), parents’ influence (parental expectations and SES) and school demographics (region, urbanized location, school size) Zigarelli (1996a) found no evidence that teacher empowerment, teacher education level, principal influences or the quality of the relations between the administration and the teachers were related to student performance.

Defining the effective school as one in which the students master the course material as the cultural norm Zigarelli concludes, as Coleman did in 1967, that achievement seems to be much more a function of student and family variables than of school variables.

As the effective schools debate continues and educators and policy makers struggle to identify what works in educating children, one should remain cognizant that the greatest influences on a student achievement level are often beyond the control of the teacher or the school (Zigarelli, 1996a, p. 8).
Supporting Zigarelli’s conclusions, Barbara Lamendola, in an unpublished dissertation (2002) examined the effective school characteristics identified in research literature and the degree to which they are present in high performing, high poverty schools in Buffalo, N.Y. Lamendola (2002) found no significant correlation between school performance and effective school characteristics. She suggests that the traditional characteristics of effective schools may be baseline competencies for all schools and may not be wide-ranging enough to create schools whose students perform well on achievement tests.

As the growing effective schools research base became the foundation for school improvement models, Cotton (2000) expressed the concern that the findings of the early school and teacher effects researchers were often regarded as discrete entities, without sufficient attention to their interactions or to their effects over time. She observed that many who wanted to improve their schools generated checklists of desirable practices based on the findings and sought to implement them in parallel but not necessarily in an integrated way.

After an extensive review of literature she divided effective school characteristics into two integrated areas, Contextual and Instructional Attributes. Cotton (2000) identified commonalities in the findings and used them to develop her list of effective school practices.

*Contextual attributes*

1. Safe and orderly school environment
2. Strong administrative leadership
3. Primary focus on learning
4. Maximizing learning time
5. Monitoring student progress
6. Academically heterogeneous class assignments
7. Flexible in-class grouping
8. Small class size
9. Supportive classroom climate
10. Parent and community involvement

*Instructional Attributes*

1. Careful orientation to lessons
2. Clear and focused instruction
3. Effective questioning techniques
4. Feedback and reinforcement
5. Review/re-teaching as needed

These attributes are closely related to those identified by Brookover and Lezotte (1979) and Edmonds (1979). Subsequent research has underscored the importance of these characteristics. It is probably safe to say that the effective schooling findings first identified by early researchers would still make the cut when evaluated in light of the research conducted in the years since. Rather than overturning earlier research, subsequent investigations have validated and added refinements to its findings. Cotton (2000) asks if all the effective school characteristics have to be present for a student to learn. Her answer is that most educational researchers would not go that far and that practitioners and researchers agree that these factors are most valuable for lower SES students.

In 1990, educational investigators in the Orange County School District in central Florida constructed the School Effectiveness Questionnaire (SEQ). A committee of district level staff and principals from the various elementary and secondary schools, plus parent and community representatives, developed the questionnaire after a thorough review of the literature on effective
schools. Although they discovered that the characteristics of effective schools fluctuated to some extent from study to study, the committee identified from the literature what they believed to be 11 common characteristics of school effectiveness (Baldwin, 1993).

1. Effective Instructional Leadership
2. Clear and Focused Educational Mission
3. Safe and Orderly School Environment
4. Positive School Climate
5. High Expectations for Students
6. Frequent Monitoring of Student Achievement
7. Emphasis on Basic Skills Acquisition
8. Maximum Opportunities for Learning
9. Parent and Community Involvement
10. Strong Professional Development Programs for Teachers
11. Teacher Involvement in Decision Making

Australian author Hadley Beare (1993) used the language of “good schools” in expressing the view that we already know what makes a good school. He contends that what has been discovered about good schools looks reliable because it is not spectacularly new. Beare states that good schools:

1. have clear educational aims
2. target learning outcomes
3. believe that every student can learn and is willing to learn
4. have an attitude of success that permeates the whole school
5. have a good Principal who is an educator rather than merely a manager
6. understand that their core task is educating
7. have teachers that direct their energy to academic learning
8. have a school-wide, systematic, regular assessment program
9. maintain an orderly and safe environment
10. provide an atmosphere where students are safe to be curious, to play with ideas, to experiment and to make mistakes
11. do not burden either their students or their staff so heavily that time for enrichment, time to reflect, time to participate in recreation or artistic or professional or other educational pursuits are crowded out of the program
12. are good places to live and work for everybody

Effective Schools Characteristics Grid

In an attempt to codify and simplify the many lists of characteristics, the table of effective school characteristics on the following pages groups the numerous and sometimes confusing definitions into thirteen general areas that this researcher determined to encompass the literature review. Some of the characteristics were summarized for clarity and in some cases more than one characteristic for each researcher was placed in a field. After assigning the characteristics to a specific area, the researcher then counted the number of times that area was mentioned and placed the total number in parentheses at the top of the column.
Table 2: Effective Schools Characteristics Grid by Researcher

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Leadership</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>Strong</td>
<td>Strong</td>
<td>The principal</td>
<td>Strong</td>
<td>Effective</td>
<td>Good</td>
<td>Principal</td>
<td>Strong</td>
</tr>
<tr>
<td></td>
<td>administrative leadership</td>
<td>instructional leadership on the part of the principal or another staff member.</td>
<td>is actively involved in academic matters.</td>
<td>Instructional Leadership</td>
<td>Instructional Leadership</td>
<td>Principal who is an educator rather than merely a manager</td>
<td>leadership and involvement</td>
<td>administrative leadership</td>
</tr>
<tr>
<td><strong>High expectations</strong></td>
<td>A climate of expectation in which no child is permitted to fall below minimum levels of achievement.</td>
<td>High expectations for student achievement.</td>
<td>Teachers have high expectations for student achievement.</td>
<td>High Expectations</td>
<td>High Expectations for Students</td>
<td>-Attitude of success that permeates the whole school</td>
<td>-Belief that every student can learn and is willing to learn</td>
<td>A culture of academic achievement</td>
</tr>
<tr>
<td><strong>Order and Discipline</strong></td>
<td>The school's atmosphere is orderly without being rigid, quiet without being oppressive, and conducive to instruction. When necessary, school resources are diverted from other business to further the fundamental objectives.</td>
<td>A sense of order</td>
<td>Reinforcement practices are appropriate</td>
<td>Safe and Orderly School Environment</td>
<td>Maintain an orderly and safe environment</td>
<td>-Clear aims</td>
<td>-Teachers core task is educating</td>
<td>Safe and orderly school environment</td>
</tr>
<tr>
<td><strong>Focused mission</strong></td>
<td>Well-defined school goals and emphases</td>
<td>Clear and Focused Mission</td>
<td>Clear and Focused Educational Mission</td>
<td></td>
<td></td>
<td>-Teachers direct their energy to academic learning</td>
<td>Primary focus on learning</td>
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<tr>
<td>Monitoring Progress</td>
<td>Pupil progress is frequently monitored using various types of assessments</td>
<td>A system for monitoring student progress</td>
<td></td>
<td>Frequent Assessment/Monitoring of Student Achievement</td>
<td>Frequent Monitoring of Student Achievement</td>
<td>-School-wide, systematic, regular assessment program</td>
<td>-Targeted learning outcomes</td>
<td>-Good places to live and work for everybody</td>
</tr>
<tr>
<td>Positive / Supportive Climate</td>
<td>The teaching and administrative staff strongly committed to the students.</td>
<td></td>
<td>- Positive School Climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Supportive classroom climate</td>
</tr>
<tr>
<td>Time on Task</td>
<td>Time on task emphasized.</td>
<td>Maximum Opportunities for Learning</td>
<td></td>
<td>Maximum Opportunities for Learning</td>
<td>Parent / Community Involvement</td>
<td></td>
<td></td>
<td>Maximizing learning time</td>
</tr>
<tr>
<td>Parent / Community Involvement</td>
<td>Staff training on a school-wide basis</td>
<td>Parent / Community Involvement</td>
<td></td>
<td>Parent / Community Involvement</td>
<td></td>
<td></td>
<td></td>
<td>Parent / community involvement</td>
</tr>
<tr>
<td>Staff Development</td>
<td>Pupil acquisition of basic skills takes precedence</td>
<td></td>
<td></td>
<td>Strong Professional Development Programs for Teachers</td>
<td></td>
<td>Emphasis on Basic Skills Acquisition</td>
<td></td>
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<tr>
<td>Basic Skills</td>
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<tr>
<td>Teacher Involvement in Decisions</td>
<td>Control by staff over instructional and training decisions</td>
<td>Appropriate grouping procedures, with movement to higher groups the norm.</td>
<td>Teacher Involvement in Decision Making</td>
<td>Teacher Involvement in Decision Making</td>
<td>-Flexible in-class grouping -Academically heterogeneous class assignments</td>
<td>Employment of quality teachers</td>
<td>Small class size</td>
<td></td>
</tr>
</tbody>
</table>
American Style International Schools

Funding

Governmental schools in the U.S. and other developed nations are publicly funded, whereas American style international schools are private and funded through tuition. There are some ‘for profit’ and ‘owner operated’ international schools, however most are non-profit and managed by an elected board of parents who hire a school director to oversee the educational, fiscal and human resource aspects of the school. International schools sponsored by the U.S. State Department’s Office of Overseas Schools (ASOS) are all non-profit.

There is a wide range of tuition rates from as little as $1,100 per year to as much as $22,000 per year and on average international school tuitions are significantly higher than the average U.S. per pupil expenditure (Zajda, 2002). Tuition income is the primary source of funding for international schools. Many schools also derive additional support from fund raising events and contributions from U.S. and local business firms, foundations, and individuals. All American Sponsored Overseas Schools have received some assistance from the limited funds available under the program of the Office of Overseas Schools (a total of approximately $8 million annually), but the grants typically comprise less than 1 percent of the school’s total income (Miller, 2003). The combined yearly operating budget of the 185 American Sponsored Overseas Schools is over $450 million. American style international schools are considered to be well funded.

Hanusheck (1986) maintains that expending more money on education does not increase academic achievement, “contrary to conventional wisdom, little systematic relationship has been found between school resources and student performance” (p.24). Hanushek argues instead for
more accountability on the funds spent. In international schools, the director and the board are intimately involved with the budgetary process and are directly accountable to the parent body that pays tuition.

Although Jencks (1972) did find a relationship between SES and student achievement in U.S. schools, he did not find a direct relationship between school resources and student performance on standardized tests. But he did comment that the more resources a school has, i.e. teachers, facilities, materials, support programs, the less often a student, in need of help, would probably be overlooked. Payne and Biddle (1999) disagreed and stating that student achievement scores were tied to funding differences even at the district level in the U.S. and added, “…surely it is time to put to rest the absurd myth that the level of funding does not matter” (p.12).

Academic Expectations and Peer Influence

Academic expectations at international schools are consistently high. The parents of international school students are well educated and expect their sons and daughters to go to college. More than 97 percent of the graduates of overseas international schools continue their education at universities in the U.S. and abroad ("The ISS Directory of International Schools 2003-2004," 2003).

Educators and parents have observed for many years that peer influence is a strong force in the lives of adolescents. Friends provide opportunities and incentives to achieve but can also distract each other from learning (Coleman et al., 1966; Kaklamanos, 2002; Yan, 1999). “…achievement is strongly related to the educational backgrounds and aspirations of the other students in the school…” (Coleman et al., 1966, p.22). In international schools being a good
student is the norm, therefore a child who does not do their homework or who does not study for a test is the outsider. In the majority of cases international high school students challenge themselves academically and often take a number of AP and/or IB courses. (Brewster, 2002)

In stark contrast to Coleman’s (1966) description of parents in poor school districts in the U.S., the majority of international schools parents are concerned about their child’s education, they are well educated, they usually have numerous books and other reading materials available in the home and the family structure is more stable. Therefore the international school student would typically have friends that have affluent and supportive families.

Jencks (1972), Zigarelli (1996b) and Lamendola (2002) supported Coleman’s conclusions concerning the direct correlation of family influence on student achievement in their research. Lamendola (2002) found that poor students and non poor students made similar improvements in reading and math and that their achievement disparity narrowed during the months they were in school. However, during summer vacation, when they did not have the same level of academic resources and support available to them, poor students lost ground faster than the non-poor students who had academic resources and supportive parents in their homes. Her findings supported the research by Entwisle, D. R., Alexander, K. L., Olson, L. S. (1997). The researchers studied increases and decreases in test scores over the school year and the summer break. Students were grouped based on their parents' socio-economic status. Children from families of high and low socioeconomic status made comparable improvement on math and reading assessments during the school year. But the achievement level of children from low-income families either declined or stayed the same during the summer, while the achievement levels of children from higher SES families continued to make improve.
Moreover, there is general agreement that social stratification in educational outcomes increases as children move through school (Entwisle et al., 1997; Phillips, Crouse, and Ralph 1998). In contrast, international students not only have resources available to them in the home but, many of them travel, go to camp, or even attend summer school sessions in specialized academic subjects or the arts.

*Stresses Related to Expatriate Living.*

The local international school is a vital component of the expatriate environment and the international school educator deals with parents and students who live within the borders of a tight, insular social group who are dependent on each other for emotional support and in some cases physical safety.

Expatriates have been described as living in a protected “environmental bubble” (Cohen, 1977) The term was used to illustrate the sheltered environment in which many expatriates live in order to deal with the unfamiliar foreign setting. Cohen reported that often the expatriate, whether American, European, or Asian withdrew into the sanctuary of a familiar social group of other expatriates, often in the same cultural group when living in a foreign land.

If the expatriate was unable to converse in the native language the dependence on the expatriate community becomes even more important and often leads to a rejection of the host nation culture. “Short timers” those who stayed three years or less, often view efforts at learning the local language as unrealistic and a waste of time. Cohen (1977) suggested that the expatriate could be viewed as a “transient, privileged minority, that gains status by its entrance into the society and hence tends to defend the exclusiveness of the enclave and its institutions from the hosts” (p.24).
In another illustration of how the insular character of many of the expatriate communities increase the consequent value to the expatriate of the international school community, Wolfe (1969) described how the American military personnel in Turkey solved the dilemma of existing in two diverse cultural environments by the rejecting of the host country culture and immersing their families in the expatriate American social scene. She found that language, educational background, and religious upbringing can become obstacles to cross cultural contacts in an overseas environment.

This insular character is not unique to Americans as many individuals from a variety of countries tend to seek out familiar surroundings, language, and cultural settings when overseas. However, recent threats and perceived threats from terrorist organizations have, in many cases, increased the fears of expatriate parents and increased their dependence on the expatriate social group. International schools are information distribution centers concerning events in the community and are possible targets for terrorist attacks. While in some countries western families are being asked to leave by their embassy, other expatriates are leaving due to the added stress and the possible closure of the international school because of local and international safety concerns. (Larkin, 2004) "People are wary and frustrated," said Jim Castle, a former president of the American Chamber of Commerce in Indonesia. "I think this will become a single person's assignment. People are not afraid per se, but the safety of their children is uppermost" (Perlez, 2002).

According to a survey conducted in 2001 by General Motors Acceptance Corporation Global Relocation Services, on average, 92 percent of expatriates blamed assignment failures on partner dissatisfaction, and 90 percent said they were caused by family concerns (GMAC, 2002). "When you are the wife of a general manager here," explained Jacob Szumanski a psychiatrist
and psychotherapist at Warsaw's Integrated Diagnostic and Therapeutic Center, who has treated many foreigners and cites detachment and separation from friends and family as a significant problem for the expatriates, "you can meet with your friends, go to the theater, but in a way you are not living your life" (as cited by Day, 2003).

The relatively small size of the expatriate community, which may force friendships or alliances, can also aggravate the situation. The old saying, “if you don't like it leave it”, is hard to follow in the expatriate community. In reality expatriates cannot change their friends easily and therefore stay attached to the group whether they like them or not. Expatriates also need to be very diplomatic as their personal connections can and do affect their professional lives.

Expatriates in the 2002 GMAC survey listed the following concerns about living overseas

- Safety: security, economic and political unrest, terrorism, pollution, level of violence and demonstrations, corruption, relatively high level of poverty of general population, lack of safety, prevalence of anti-Western sentiments, conflict, living in a conflict zone, dangerous operating environment.

- Bureaucracy and Taxation: taxation, government bureaucracy, complicated tax laws, difficult to do business and obtain visas, loads of red tape, difficult to localize employees at the end of an assignment, local laws create employment-related issues for termination and severance.

- Quality of Life: housing, lack of Western amenities in rural areas, medical facilities, lack of critical infrastructure or very limited access to services that are acceptable by Western standards such as medical care and prescription drugs, access to schools and churches, Internet access, groceries, and general
transportation, pollution, isolation, education and health facilities, high noise volume and density of population, lack of schools for American children.

- Culture: salaries are discussed freely, difficulty making friends with locals, procedures for renting apartments, buying cars, restrictions on women, emerging location trying to hold on to old-world customs while competing in the modern world.

The 2002 Global Relocation Trends 2002 Survey Report (GMAC, 2003) stated that 65 percent of expatriates were married and of those who were married their spouses accompanied them overseas 86 percent of the time. Fifty nine percent of expatriates brought children to their overseas assignment. The most critical family challenges reported were spousal resistance to the move, family adjustment to the new location, educational opportunities for their children, and their spouse’s career.

The respondents in the GMAC surveys, both in 2001 and 2002 cited the limitations or unavailability of employment for the spouses overseas as a cause of stress. The 2002 GMAC survey reported 50 percent of expatriate spouses were employed before an overseas assignment, yet only 14 percent were employed during the assignment. Although these results were similar to previous surveys, the percentage of spouses employed before an assignment increased from the 43 percent figure in the 2001 survey to 50 percent in the 2002 survey.

If the spouse has experience as an educator, a common opportunity for employment is teaching in the international school. However, this can add to the insular nature of the expatriate
community as the teaching spouse can provide a source of “inside” information about the school when asked about school activities at social gatherings.

These challenges may be different from those of low SES students in the U.S. yet research has shown that these kinds of stress can and do affect achievement. When normed to U.S. students however, international students frequently score well on standardized tests and many high school graduates attend highly selective universities.

**Summary**

The preponderance of effective schools studies have focused on reading, mathematics or college admissions results. Only a small number of studies have utilized social or affective outcomes as the dependent variable. Because of this focus on academic outcomes, the result of this literature review is concentrated on the association of effective school characteristics to academic effectiveness. Reynolds and Cuttance (1992) noted that we have less evidence defining the school characteristics that are important in determining success in promoting social or affective outcomes. Improving academic achievement however, is still a fundamental test of effective schooling for most parents. Identifying the correlates of effective school characteristics to academic effectiveness has a vital part to play in making assessments about schools, although additional research on the influence of effective schools characteristics on affective outcomes is certainly needed.

While there are some differences, the eleven characteristics identified in this review as effective in improving academic achievement generally seem to apply to both elementary and secondary school studies. The bulk of the literature addresses elementary school data primarily due to the complexities of measuring the departmental results and the departmental
characteristics unique to secondary education. Further research into the differences between the two levels would help clarify the true associations between academic results and effective school characteristics.

Schreerens (1997) has pointed to the significance of pedagogy and of classroom practices in determining a schools’ academic effectiveness. The eleven characteristics identified in this chapter spotlight whole school practices. Teaching quality may play the major role in academic achievement, however whole school characteristics remain significant as they determine the support structure within which teachers function. Researchers are now exploring the complex interactions between teaching practices and whole school characteristics (Cotton, 2000). This information will be vital in the search for effective schools.

Effective schools research findings have been criticized by teachers and administrators for being too simplistic as they may be clearly evident to any professional educator. Sammons (1997) believes this is because of the nature of the research. Effective schools research is designed to find and identify good practice therefore it is inevitable that some of the findings would be common sense to practitioners. Rutter (1979) argued that although many of the findings are not unexpected, it is still useful to the profession to attempt to determine which educational practices are more closely related to successful outcomes in order to guide planning and teacher training. The majority of the studies focus on schools for the urban poor, further research is needed to determine if these characteristics are applicable to a broader range of school situations.

Sammons (1994) argued that the definitions of effective school characteristics are dependent upon the methodology of the original research. Each investigation has focused on a different sample of schools but generally they have examined poor, inner city schools and this
framework influences the relevance of the results to a broader context. Sammons (1994) states that studies which rely only on academic achievement, measured in one way, will tend to furnish an incomplete portrait of school effectiveness. A wider variety of correlational assessments that point toward broader educational goals would be more useful to society and to the practitioner.

The literature reveals that the methodology of traditional studies is also problematic. Using small outlier schools that perform above the norm (Teddlie and Reynolds, 2000), or convenience samples limited to one locality, reduces the value of the results and makes it difficult to compare outcomes from different effective schools investigations (Thrupp, 2001). Investigations that use longer timescales may be necessary to address issues of student, teacher and administrative stability and the consistency of educational practices. Cross sectional snapshots have been criticized as being less reliable compared to longitudinal approaches designed to follow student achievement over a period of time.

This study attempts to address some of the gaps in the present literature by utilizing a stratified random sample of American-style international schools around the world. This unique dataset is being added to the overall database of information concerning the presence of effective school characteristics and their correlation to academic achievement. In direct contrast to the families in much of the traditional research, the families that send their children to international schools characteristically have a high socio-economic status and many of the challenges of poor urban families are absent. Expatriate families are faced, however, with other challenges, from lack of stability to threats of terrorism, which may be equally significant and have the potential of affecting student achievement.
CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

Introduction

The purpose of this chapter is to describe the methodology and the research design used in determining the effective school characteristics and how those characteristics are related to student achievement in each of the sample schools. The chapter includes characteristics of the sample, description of the instrument and data collection procedures used in the study to provide a basis to determine if there is a relationship between effective school characteristics and student achievement as measured by standardized tests.

Characteristics of the Sample

Stratified Random Sample

The schools selected were American style international schools located in five regions around the world. As stated previously the student populations in these schools range from less than 10 to almost 2,300. A stratified random sample, based on each of the five regions of the world, as defined by the American Office of Overseas Schools, was used to select the international schools in the sample population. The five defined regions are:

1. Africa, (including north, central and south African regions)
2. Central / South America,
3. East Asia, (Middle Eastern countries)
4. Europe, and the
5. Near East/ South Asia
At the 95% confidence interval, with a .25 bound for the 5-point Likert scale used in the questionnaire developed for this study, a total of 51 schools were randomly selected from the 185 ASOS schools. Table 3 and Figure 1 present the total number of ASOS schools, the selected sample and the schools that responded from the selected sample.

Table 3: Selected and Responding ASOS Schools

<table>
<thead>
<tr>
<th>Population</th>
<th>ASOS Schools</th>
<th>Selected Schools</th>
<th>Schools Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>40</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Central and S. America</td>
<td>26</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>East Asia/Pacific</td>
<td>59</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>Europe</td>
<td>21</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Near East / S. Asia</td>
<td>39</td>
<td>11</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 1: Selected Schools and Responding Schools by Region
Age of Schools

American style international schools were founded during the 20th century as American businesses, missionaries, and American governmental influence grew overseas. The oldest school in the sample was founded in 1912 and the youngest school was founded in 1994. (Range = 82, M=1963) Most of the schools began operations in the late 1950’s through the 1960’s.

Accreditation

Twenty two of the 24 schools were accredited by the four major accrediting organizations in the United States. Figure 2 presents the various accrediting organizations and the number of schools accredited by each.

<table>
<thead>
<tr>
<th>Accrediting Organization</th>
<th>Number of Schools</th>
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<tr>
<td>None</td>
<td>2</td>
</tr>
<tr>
<td>Southern (SACS)</td>
<td>8</td>
</tr>
<tr>
<td>Middle States (MSA)</td>
<td>8</td>
</tr>
<tr>
<td>Western (WASC)</td>
<td>4</td>
</tr>
<tr>
<td>New England (NEASC)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Figure 2: Accrediting organizations of selected schools

Some of these schools were also accredited by the Council of International Schools (CIS), formerly the European Council of International Schools (ECIS). Two of the schools were not accredited by either the U.S. organizations or by CIS.
The mean maximum tuition costs varied over the five AOS regions with the East/Pacific Region and European Regions highest, averaging approximately $14,500 per year and with Central and South American averaging the lowest at $10,039. (See figure 3)

Tuition ranged widely with rates as high as $22,679 for secondary schools in Asia. (M= $12,202, mode = $11,948, range= $17,679) Often tuition for secondary school education is significantly more than the elementary tuition due to the costs of running inclusive programs which require science labs, sports facilities and musical instruments. Almost all of the schools collected tuition in US dollars; however, some schools collected tuition in the local currency. The researcher has converted the local currency to the U.S. equivalent for the purposes of comparison. The “mean maximum tuition in US $” reflects the tuition rate for students attending the secondary school level of the sample schools, converted to US dollars.
Figure 3: Average Maximum Tuition in U.S. Dollars by Region

Instrument

The principle gauge of a school’s effectiveness continues to be standardized test scores. However, this process neglects a range of alternative effectiveness factors. Information gathered through the Effective International Schools Questionnaire (EISQ) designed for this study is intended to look at those other factors and provide a database for determining whether there is a relationship between effective school characteristics and standardized test scores.

The instrument specifically designed for this study is a web-based questionnaire intended to solicit teacher perceptions of the international schools in which they teach. The instrument was intended to gather data on the opinions of teachers about the correlates of effective schools...
both at their school and to gather their opinions of the importance of the characteristics to an effective international school.

The questionnaire had three sections.

1. The first section included fifty-five questions that reflected the correlates of the selected eleven characteristics of effective schools based on the literature review; five questions were written for each characteristic.

2. The second section consisted of five demographic questions: gender, years of teaching experience, years of teaching experience in the school, nationality, and native language.

3. The third section asked teachers to select, from the list of eleven characteristics, what they believed were the most important characteristics of an effective international school. They could choose more than one characteristic. This section also included an open ended question asking the respondent to identify any other characteristic that they believed important that was not identified on the list provided.

The design of the EISQ was based on school effectiveness research throughout the U.S., the U.K., the Netherlands, Australia, and other countries (W. B. Brookover et al., 1979; Cotton, 2000 and others; Edmonds, 1979; Luyten, 1994; Purkey and Smith, 1982).

The EISQ addresses the following 11 characteristics.

**Effective School Characteristics (as identified for this research)**

1. Strong Instructional Leadership

2. Clear and Focused Mission

3. Safe and Orderly Environment
4. Helpful and Encouraging School Climate
5. Atmosphere of High Expectations
6. Regular Monitoring of Student Progress
7. Basic Skills Acquisition is Stressed
8. Opportunities for Learning are Maximized
9. Parent/Community Participation
10. Effective professional Development
11. Collaborative Decision Making Process

These eleven characteristics were chosen after extensive review of the research by Edmonds (1979), Purkey and Smith (1982), Brookover (1978), Lezotte (1990), Baldwin (1993), Beare (1993), Zigarelli (1996a) and Cotton (2000), as representing the major defined constructs for effective schools (See Table 2). Cotton (2000) and others have also defined effective classroom characteristics, but the onsite qualitative observations of international school classrooms in over 30 countries were beyond the scope of this study.

**Questionnaire Design**

To ensure content validity of the questionnaire, input concerning each item was solicited from several sources. Popham (1993) defines content validity as the attempt "made to judge the degree to which a test is consistent with the content, skills, or objectives it is supposed to measure" (p. 123). All members of the dissertation committee also reviewed the instrument to specifically align the survey questions with the research questions.

The traditional method of collecting data for educators is through the use of paper based surveys. Although surveys appear to be simple, they have their drawbacks. Survey questions
must be carefully scrutinized especially when the questionnaire has not been previously tested. It is highly recommended that a new survey be field-tested (Dillman, 2000). The Effective International Schools Questionnaire (EISQ) was reviewed by members of the dissertation committee and colleagues at Stetson University before piloting. The ESIQ was piloted with the assistance of international school administrators and teachers who were not part of the selected random sample.

_Electronic Communications_

The Effective International School Questionnaire was designed using many of the techniques for web-based questionnaires that were developed and studied by Dillman (2000). He states: “the two most significant advances in survey methodology during the twentieth century were the introduction of random sampling in the 1940s and interviewing by telephone in the 1970s. Both of these innovations have transformed how most major surveys are done (p.352).” Yet, he goes on to state that the ability to collect data through electronic means such as e-mail and the web, is an advancement that may be even more profound in that it allows access to a much larger number of possible participants in regions of the world that were previously very difficult to contact. A survey of 51 schools in five separate regions of the world could not have been accomplished by the traditional method of mailing due to both the cost and the lengthy time frame between mailing requests, questionnaires, reminders, and thank you cards. The telephone would have also been very difficult to use as the costs would be prohibitive and the practicalities of contacting over seven hundred teachers by phone in countries scattered throughout the time zones of the world would have been unfeasible. Thus, the use of electronic communications not only facilitated this research, it made it possible.
The use of web based questionnaires has drawbacks. The lack of electronic access for all the potential respondents in the research could have limitations and contribute to sampling error. Researchers might assume that not all teachers in international schools in these far flung nations would have access to e-mail. However, as stated previously, American style international schools have a high degree of technology access. Almost all of the international school administrators and teachers have e-mail addresses assigned to them by the school and e-mail is regularly used to communicate from administrator to faculty and faculty member to faculty member. Administrators and faculty members also use the internet to correspond with the school’s parents and students and with colleagues, friends and family in other parts of the world. A primary assumption for this research is that using electronic communications did not limit the potential responses from international school teachers, rather the internet swept away many of the previous obstacles to international school survey research.

**Questionnaire Description**

The questionnaire utilized four input options and was divided into three sections. (See Appendix D)

**Input options**

1. Likert scale, “radio-button” responses for the characteristics questions
2. “Drop down” boxes for demographic questions
3. “Fill-in-the-blank” responses for school information, personal demographics
4. Large “text boxes” for open ended questions and
5. “Check” boxes for teacher opinions of the most important characteristics of effective international schools.
Sections

In the first section of the questionnaire the respondents answered 55 questions, on six pages, using a single radio-button response format to select Likert scale answers. “A Likert scale is widely used tool in the social sciences and is an appropriate response to measure attitude, perception or opinion” (Vogt, 1999, p.160). To permit an easily understandable correlation of standardized scores to effective school characteristic scores, the original value selections, SA, A, N, D, and SD were coded for the data analyses with the following values: “Strongly agree” = 5, “Agree” = 4, “Neutral” = 3, “Disagree” = 2 and “Strongly Disagree” = 1.

The second section of the questionnaire included five demographic questions using both drop-down and fill-in-the-blank formats located on the sixth page of the instrument. The third section asks for teacher opinions about the most important characteristics by directing them to select one or more characteristics using check boxes. This section also included a text box for an optional open-ended response. All responses were on one page. The web site version of the questionnaire was developed using the Microsoft Office FrontPage 2003 and Microsoft Access 2002. This software combination allowed the database survey instrument to be posted on a web site without extensive HTML programming skills.

This is a fairly new method of conducting a survey. The use of a web page survey for this study was expected to generate a higher return from the respondents due to the quick and efficient method of responding. Respondents answered the questionnaire at their own convenience; however, once they began the questionnaire each respondent was required to complete all questions on each page of the questionnaire before moving to the next page. All questions were required to be answered before final submission. Upon submission the teachers
received a thank you message and a text box on the last web page soliciting comments about the questionnaire, the process, or their school.

Web Design

To use the electronic database features of Microsoft FrontPage and Microsoft Access database on a web page it was necessary to host the website on a server with “.asp” protocols. Active Server Pages, (ASP) generate dynamically created Web Pages. Web pages designed with ASP allow user interaction and database connectivity (Webopedia, 2004). The researcher secured the website name “effective-international-schools.org” and found a recognized commercial hosting service with ASP protocols to host the website.

The questionnaire consisted of a 72 - item document divided into seven separate web pages so that the respondents did not have to scroll to answer questions. (See Appendix D) Whether to scroll or not to scroll on a web page is a debated issue. Dillman (2000) suggests scrolling as his preferred method. However, Microsoft (2004) states that scrolling through tables can cause a computer to ‘hang’. The authors of the online article “What Makes a Great Website” (Jupitermedia, 2004) suggest that web developers “Break up tables vertically for a cascading load to appear more responsive.” One huge table takes much longer to display content compared to smaller tables which display one at a time. They also suggest that graphics be used sparingly to transmit information. Each graphic requires another connection to the server which can limit, hamper and even stop long distance web responses. To keep the respondents’ interest, the first questions were selected as ones that would peak professional interest and encourage teachers to continue through the entire questionnaire. Demographic questions were at the end of the questionnaire as suggested by Dillman (2000).
Field Test

The online questionnaire and school demographic information pages were developed and posted on the website “www.effective-international-schools.org” in January of 2004 for debugging and field testing utilizing local and international colleagues and Stetson University graduate students. The initial concern was the ability of the respondents to access the web page, follow the instructions for responding to the questionnaire, and ensure the functionality of the software.

After the field test, several changes were adopted in order to simplify the questionnaire as well as the input process. Some of the changes included removing the authentication of the username and password from the process allowing the respondents fewer barriers when completing the task. Although the need for a username and password seems to be a requirement for security it was found, after viewing the database that logs the time and ID of the server, that there were no attempts at completing and/or submitting the questionnaire by unauthorized users or multiple submissions by the selected respondents. The added layer of providing a username and password was therefore deemed to be an unnecessary barrier to high response rates from the selected sample in this study. Once the technical aspects of the survey were found to be reliable for the web page and the server to capture, record the data, and demonstrate flawless input, a pilot test was conducted using an overseas school not in the sample.

Pilot Study

To ensure international school teacher respondents understood the instructions for finding the questionnaire on the web, the directions for filling out the questionnaire, the electronic
submission process, and to determine internal reliability, a pilot study was conducted using respondents from an international school in early February of 2004. A direct link to the researchers e-mail was included on both the first and last page of the website. A comments section concerning the questionnaire was also incorporated. The researcher e-mailed the administrator of the pilot school and asked that they send their faculty an attached request. Of the 62 teachers in the pilot school 42 completed the questionnaire. At the end of the questionnaire, they were asked for any suggestions for improving the survey and if questions were either unclear or ambiguous.

The pilot study provided vital information as to the length of time needed to complete the questionnaire (8-10 minutes), poorly worded questions, and web design flaws. The feedback from this pilot study helped refine the questionnaire and the school test information page. An e-mail and faxable version were also developed when it was found that a few respondents were unable to connect with the web site. However, in actual practice, only two of the more than 700 responses were submitted using e-mail.

After the field testing and the pilot study, corrections were made to the questionnaire format and modifications were made to both the e-mail requests and to the instructions on the first page of the web site. A number of respondents in the pilot study asked more detailed information about the research goals, methodology and sampling. To clarify the purpose of the research, the research proposal and the definitions of the effective international school characteristics, as defined for the questionnaire, were posted on the website. Information concerning the average length of time to complete the questionnaire was also added to the e-mail requests. The final survey instrument was approved in February of 2004 by members of the
dissertation committee and the first requests for responses to the administrators in each international school were sent out in early March 2004.

Reliability

The researcher investigated the reliability of the EISQ by employing the Cronbach alpha measure of internal consistency. The survey instrument consisted of 11 distinct constructs corresponding to the 11 effective school characteristics. For design and statistical purposes, individual constructs were designated with a letter a-k. Five questions were developed for each of the 11 constructs. The questions were assigned a letter corresponding to the characteristic they addressed and numbered from 1-5. Each of these 11 sets of questions (a-k) were analyzed separately. According to the item analysis and corresponding alpha scores, removal of questions from the survey instrument provided no significant increase to the survey reliability. (See Table 4) In only two constructs, J and K, would the removal of one question raise the alpha score. In each case the score would have increased by approximately .01. Therefore, to maintain questionnaire consistency, no questions were removed from the survey instrument.
Total respondent replies to all items on the questionnaire were also judged to be very reliable for the international school teachers to whom it was given with an alpha coefficient of .9657.

**Factor Analysis**

Using SPSS reliability analysis procedures, promax rotations yielded 11 identifiable factors in 6 itinerations with Eigenvalues above 1.0 (accounting for 64.73% of the variance) from questions 1-55 (See Table 5 and Figure 3). Questions 56-60 were excluded from the factor analysis because they are demographical classifications and were reported previously using descriptive statistics.

<table>
<thead>
<tr>
<th>Five Question Set</th>
<th>Alpha</th>
<th>Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.9105</td>
<td>Strong Instructional Leadership</td>
</tr>
<tr>
<td>B</td>
<td>0.8515</td>
<td>Clear Educational Mission and Goals</td>
</tr>
<tr>
<td>C</td>
<td>0.7947</td>
<td>Safe and Orderly Atmosphere</td>
</tr>
<tr>
<td>D</td>
<td>0.7992</td>
<td>Positive School Environment</td>
</tr>
<tr>
<td>E</td>
<td>0.7571</td>
<td>High Academic Expectations.</td>
</tr>
<tr>
<td>F</td>
<td>0.8319</td>
<td>Frequent Analysis of Student Progress</td>
</tr>
<tr>
<td>G</td>
<td>0.7836</td>
<td>Basic Skills Acquisition is Emphasized</td>
</tr>
<tr>
<td>H</td>
<td>0.8261</td>
<td>Learning Time is Maximized</td>
</tr>
<tr>
<td>I</td>
<td>0.8565</td>
<td>Parent/Community Involvement</td>
</tr>
<tr>
<td>J</td>
<td>0.8541</td>
<td>Effective professional Development</td>
</tr>
<tr>
<td>K</td>
<td>0.7732</td>
<td>Teacher Involvement in Decision Making</td>
</tr>
</tbody>
</table>
Table 5: Factor Analysis Eigenvalues

<table>
<thead>
<tr>
<th>Factor</th>
<th>Initial Eigenvalues</th>
<th>% of Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>19.93</td>
<td>36.24</td>
<td>36.24</td>
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<td>2</td>
<td>3.07</td>
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<tr>
<td>3</td>
<td>2.17</td>
<td>3.94</td>
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<td>4</td>
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<td>3.09</td>
<td>48.85</td>
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<td>51.84</td>
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<td>1.44</td>
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<td>1.26</td>
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<td>1.23</td>
<td>2.24</td>
<td>58.98</td>
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<td>9</td>
<td>1.11</td>
<td>2.01</td>
<td>60.99</td>
</tr>
<tr>
<td>10</td>
<td>1.04</td>
<td>1.89</td>
<td>62.89</td>
</tr>
<tr>
<td>11</td>
<td>1.01</td>
<td>1.85</td>
<td>64.73</td>
</tr>
</tbody>
</table>

Extraction Method: Maximum Likelihood.

11 factors extracted in 6 itinerations
Correlation coefficients among the factors were substantial (> .30) with only four out of 110 bivariate correlations less than .30.

**Questionnaire Administration**

The questionnaire was administered in the spring of 2004. The survey’s time frame was designed to avoid the hectic schedule of end of the year activities. However, due to the repeated requests needed to obtain a satisfactory number of responses from each school, some of the questionnaires were not completed until late in the school year. This may be a limiting factor as the stress of deadlines and grading may have lead to responses that may not have represented the
true feelings of the teacher, although no research could be found which supported the researcher’s concern. An assumption for this research is that teacher perceptions of a school are a reliable source of information about the school’s instructional program, environment, expectations for achievement, etc. This assumption is supported by other school effectiveness researchers (Degenhart and Advisor: Chairman Maurice, 1990; Hayden, 2000; Lamendola, 2002 and others).

Data Collection

Procedure

An initial e-mail was sent in early March 2004, to administrators at the 51 selected schools alerting them to the purpose of the study, expressing the importance of their contribution to the study, and how the study would benefit the educational community as a whole. (See Appendix C) The e-mail to the administrators also included specific instructions on how to access the web site for the questionnaire. A link was imbedded in the e-mail to the web site: http://effective-international-schools.org to simplify connection. Seven to ten days later, a second e-mail was sent with a polite reminder asking the administrator if they had received the first e-mail and asking them to send an attached message to their faculty. The e-mail also included instructions to e-mail or to call the researcher if problems accessing the web site occurred. One week later, a follow-up phone call was attempted to each school administrator if a reply was not received or a solicitation for information was not requested. This process was repeated a number of times in an attempt to get the highest number of responses.

It should be noted that any e-mail not properly delivered to the respondent was returned to the researcher as a warning notification of an undeliverable address. This red flag indicated an
erroneous e-mail address or the inability of the respondent to receive e-mail. The system administrator also provided this researcher a receipt verification of any e-mail activated by the respondent. This method indicated if and when the e-mail was successfully delivered and was opened by the respondent.

When the respondent successfully submitted the questionnaire, an e-mail was generated to the respondent thanking them for their participation. This process kept this researcher abreast as to the status of the survey and shed light on how the researcher should react to each respondent when delays in the process were experienced. Each day the researcher checked the website to monitor the activity rate and the database to determine if teachers were answering the questionnaire and to determine which schools were answering. Responses were downloaded daily to the researcher’s computer and then backed-up on both a floppy disk and an additional secure hard drive.

**Time Frame**

The researcher assumed that by using electronic communications, the time frame for questionnaire response would be only about 4-6 weeks. This assumption proved incorrect as many more attempts were made to contact administrators and teachers than originally planned. Baldwin (1993) suggests administering this type of instrument in the spring of the year to allow ample time for the new teachers to build opinions about the school and not yet be hindered by end of the year activities such as testing, grading, inventory, report cards, etc. The pilot study in January 2004 and the first world wide requests were sent in early March of 2004. However, due to the late response from a number of the school administrators, final appeals to some of the schools were made as late as the last week in May 2004.
The actual study was conducted during the 2004 spring semester to ensure that all faculty members had at least one semester of experience in each school. Notification of the questionnaire was e-mailed in early March of 2004. Although teachers are always busy, this timing was chosen to utilize a time of the year that would least burden.

**Contact Sequence**

This research used, in an e-mail format, Dillman’s four-contact sequence with both the administrators at each school and subsequently with the teachers at each school. E-mail addresses for the teachers were not readily available to the researcher and, as this research was specific to each school site, contact was first attempted with the director/principal requesting their cooperation with the study.

In an attempt to get the maximum number of responses from each site, administrators were sent a minimum of four e-mails, one every two weeks. These e-mail requests began by using titles that attached the appearance of importance to the survey, moved to asking for advice and help and finally resorted to posting a very personal appeal in the subject line of the e-mail, “This is a desperate appeal from a desperate doctoral candidate.”

School administrators who responded were sent a pre-notice e-mail to forward to their teachers. In four of the schools, the administrators provided the e-mail contacts for their faculty and the researcher was able to contact those teachers independently. However, in the majority of cases messages were sent directly to the site administrator who then distributed the electronic message to the school staff.

The researcher was not able to find a practical way to provide a pecuniary reward through the web-site and therefore was not able to use what Dillman (2000) calls a major element of
achieving high quality survey responses, the “issuance of monetary rewards”. The research method did utilize the idea of “sponsorship by legitimate authority” (Dillman, 2000, p.20) by stating that the survey analysis was approved by both the U.S. Office of Overseas Schools and that it would be presented at the American Association for International Education (AAIE) conference in February 2005. The e-mail subject title of the faculty reminders, as in the case of the initial administrator contacts, became more personal with each succeeding reminder, until the appeal, as Dillman suggests “Invokes other exchange relationships” (Dillman, 2000, p.20), the final prompts to the teachers were also personal “A desperate appeal from a desperate doctoral candidate”.

Guidelines

The research protocol was approved for one year by the University of Central Florida Institutional Review Board on December 12, 2003. All teachers at the selected schools were asked to voluntarily complete the web-based version EISQ. The survey responses were anonymous to encourage teachers to express their opinions freely.

To increase the truthfulness of the answers and safeguard the anonymity of the respondents, personal identification was not collected. However demographic information including gender, teaching experience, number of years in the school, country of birth, native language, and region as defined by the Office of Overseas Schools, i.e. Asia, Western Hemisphere (Central and South America and the Caribbean), Africa, Europe, Middle East, Asia was gathered.

Teachers were assured that the responses would remain anonymous and there would be no attempt at using demographics to attach names to responses. The teachers and the
administrators were also promised that their schools would remain anonymous, although
analyzed results for each school, without teacher demographics, would be available to the
administrators if they so desired. It was emphasized that individual responses would not be
shared; only cumulative data would be available to the administrator.

Data and Statistical Analysis

As each respondent completed and submitted the questionnaire, the data were
electronically transmitted through the Internet and stored on the Microsoft Access database
located on the web server. Each respondent’s entry was stored as a record and was automatically
compiled on the database. The final data collected were imported to SPSS for statistical analysis.
The small number of e-mail questionnaires and faxed questionnaires that were submitted were
recorded into SPSS by hand.

The raw data were coded and tallied utilizing the SPSS 11.5 “Grad Pack” statistical tool.
Analyses of the data were reported using descriptive statistics, percentages, and mean scores for
each of the variables. The data will be presented in Chapter Four using several methods and in
tables and graphs to best convey the appropriate information and analysis of the responses.

Responses for the fifty five, five-point Likert-type scale questions were translated into
numerical scores for each item: 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 =
Strongly Disagree. Characteristic totals and overall school totals were determined by grouping
and then totaling the 5 questions for each of the 11 characteristics and dividing by the number of
respondents. This resulted in a mean score for each effective school characteristic and an overall
“effective school” mean score.
Standardized Test Information Collection

At the same time the EISQ was administered, data were collected from the school’s administration. The administrator, or their designee, was asked to fill out a web-based “Test Information” form (Appendix D) on the “Effective International Schools” website. This data included standardized test results, student nationalities, and pupil/teacher ratios. The vast majority of International schools use norm-referenced standardized tests such as the ITBS in elementary/middle school and the SAT and/or the ACT in high school. I was able to obtain some criterion referenced test scores in high schools who offer the International Baccalaureate and the Advanced Placement tests. However, the response rates were too low at those schools to analyze.

Preliminary research and subsequent communication with each school indicated that not all schools used the same standardized test. However, all but one school used tests that reported U.S. norms. Each school indicated the elementary/middle school test used and then provided the average reading, language, math and the core total scores for each grade, 1 through 8. They were also asked for the number of students taking the SAT, ACT and IB tests and average scores for each assessment. Finally they were asked to fill in the average class size for grades: PK-1; 2-5; 6-8, and 9-12.

Data Analysis Procedures

Research Question One

Are there effective school characteristics that are common in high performing overseas international schools? The schools that scored above 50% on the elementary/middle school
standardized test and those high schools that performed above the U.S. national average SAT score of 1026 were defined as high performing and the responses from the teachers in these schools were used to determine if common effective school characteristics could be found. Mean scores for the teacher’s aggregate responses to each characteristic were used to determine if there are common effective school characteristics.

**Research Question Two**

What are the most important effective school characteristics of an effective international school based on the perceptions of teachers? In order to answer research question two, the third section of the EISQ was used to calculate the most frequent responses from all of the responding teachers from the list of 11 characteristics defined for this study. This analysis will also include a summary of the open ended question, “Are there other characteristics that have not been identified on this list that you believe are important to an effective international school? If so, please describe in the box below.”

**Research Question Three**

Are there effective school traits that are more crucial to higher student achievement in International schools? To answer research question three comparisons will be made between the individual characteristics and the standardized test scores for each school to determine if any significant relationship existed between the school’s mean score on each characteristic and student achievement based on the reported standardized test score for that school.
Research Question Four

Is there a correlation between the international schools that display a higher degree of the characteristics of effective schools and student achievement as measured by standardized tests? Research question four focused on the overall comparison of each school’s “effectiveness” score and student achievement based on the reported standardized test scores. The total “effectiveness” score for each of the selected schools was determined by averaging the scores on each of the eleven characteristics to determine an overall score. This score was then compared to the school’s standardized test score using Pearson’s product-momentum correlation.

Summary of the Methodology

The purpose of chapter three is to present the methodology of this study as it applied to the research. The questions in this survey were framed around the “Effective School Characteristics” defined through an extensive literature review. The questionnaire was developed to identify the characteristics of effective schools, as perceived by the teachers, evident in the international schools in the sample. A web based questionnaire was used to enable contact with schools in many parts of the world.

The method of collecting the survey data through an online Internet questionnaire is relatively new to the dissertation process. The survey included radio button, check box responses, Likert-scale and open-ended questions. The assumption was that each respondent would have the technology to receive e-mail as well as the ability to access the web based questionnaire. This researcher also expected a higher than normal rate of return due to the monitoring system employed via the e-mail communication system and the ability to send
multiple reminders to the respondent. The innovative technique described in this chapter is evaluated as part of chapter four.
CHAPTER FOUR: DATA ANALYSIS

Introduction

This quantitative study was designed to gather data about the relationship of effective school characteristics in American style international schools to student achievement. As these characteristics had not been studied in this population, the research was intended to add to the available body of knowledge on effective school characteristics.

Chapter four has been divided into five sections. The first section contains response rate and demographic information. The second section contains data analysis related to the first research question: “Are there common effective school characteristics in high performing overseas international schools?” The third section contains the data analysis related to research question two: “What are the most important effective school characteristics of an effective international school based on the perceptions of teachers? Data analysis for the third research question, “Are there effective school traits that are more crucial to higher student achievement in International schools?” is included in section four and the analysis for the fourth research question, “Is there a correlation between the international schools that display a higher degree of the characteristics of effective schools and student achievement as measured by standardized tests?” is contained in section five.

Schools Selected for Data Analysis

Numerous e-mails were sent to the administrators and teachers in each of these schools from early February 2004 through early June 2004 following the procedures defined by Dillman (2000). Of the 36 schools that replied to the requests to participate, the total teacher responses to
the Effective International Schools Questionnaire (ESIQ) varied widely from 1 percent to 98 percent per school \((Range = 97\%, \ M = 43\%, \ SD = .18)\). For the purposes of this research the 25 schools with a response rate of 20% or more. \((n = 25, \ M = .47, \ SD = .18)\) were initially selected for analysis.

However one school, with a relatively large number of teacher responses, did not use standardized testing. Their data was not usable in the correlational analysis seeking a relationship between student achievement and effective school characteristics. Therefore there are 24 schools represented in research questions one, three and four. The sample schools responding are located in 31 different countries. The 24 schools who did give standardized tests had a mean response rate of 43%.

Not all of the 24 schools gave norm-referenced standardized tests at each grade level. Some schools tested every grade from one through eight, but most alternated years and began testing at grades two or three. The testing grades common to the 24 selected schools were grades 4, 6, and 8. Therefore the total scores from each of these three grades were used in the analysis of the data. Of the 24 schools, 21 had high schools and 20 gave the SAT. Those high schools giving the SAT were used in the analysis.
**Standardized Tests**

The standardized tests used by the sample schools to determine student achievement varied. The Iowa Test of Basic Skills (ITBS) was given by more than half of the schools (52%, \( n = 13 \)) followed by the Stanford (20%, \( n = 5 \)), Comprehensive Testing Program (CTP 4) was next with (16%, \( n = 4 \)), followed by the California Test of Basic Skills (CTBS) (4%, \( n = 1 \)) and finally the Terranova (4%, \( n = 1 \)). (See figure 5)

![K-8 Standardized Test](chart.png)

*Figure 5: Elementary/Middle School Standardized Tests*
Faculty Responses by ASOS Region

The teachers who responded worked in international schools in the five different regions. Figure 6 displays the total number of teachers in the selected schools by region with a graphic comparison to the number of responses. The largest number of full time faculty in the sample are from schools in Central/South America ($n = 492$).

![Figure 6: Faculty Responses by Region](image-url)
**Percent of Responses by Region**

Figure 7 illustrates the percent of responses by region. The highest percentage of the responses, with 37% of the total, came from teachers in Central/South America. The East Asia/Pacific region followed with 25%, the Near East with 21%, Africa with 10% and finally the European region with 6%.

![Bar chart showing the percent of total responses by region: Americas 37%, E.Asia/Pacific 25%, Near East 21%, Africa 10%, Europe 6%]

**Figure 7: Percent of Total Responses by Region**

**Nationality of Teachers**

A total of 736 teachers from the 36 schools responded to the EIS questionnaire. They represented 28 nationalities with almost 50% (n = 436) of those who replied describing themselves as American. This relationship is similar to the responses from the teachers in the 24 schools selected for the analysis.

A total of 652 teachers responded from the 24 selected schools. They represent 27 nationalities with 59% (n = 389) of the respondents listing the USA as their home country. This
is consistent with the demographic information for faculty nationalities in the selected sample of 51 schools as described in the 2003-2004 edition of the ISS Directory of International Schools ("The ISS Directory of International Schools 2003-2004,"). Miller (2003) reported that that out of 12,106 teachers and administrators employed in ASOS sponsored overseas schools, 45% \((n = 5,463)\) are U.S. citizens and 55% \((n = 6,643)\) are foreign nationals.

Table 6 presents a list of the nationalities, the total number of respondents in each category and the percentage of the total each nationality represents.

Table 6: Nationality of Teachers

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Frequency</th>
<th>Percent</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>American</td>
<td>389</td>
<td>59.7</td>
<td>Croatian</td>
<td>5</td>
</tr>
<tr>
<td>Canadian</td>
<td>34</td>
<td>5.2</td>
<td>Greek</td>
<td>5</td>
</tr>
<tr>
<td>British</td>
<td>30</td>
<td>4.6</td>
<td>German</td>
<td>4</td>
</tr>
<tr>
<td>Panamanian</td>
<td>28</td>
<td>4.3</td>
<td>Japanese</td>
<td>4</td>
</tr>
<tr>
<td>Brazilian</td>
<td>21</td>
<td>3.2</td>
<td>Spain</td>
<td>4</td>
</tr>
<tr>
<td>Indian</td>
<td>20</td>
<td>3.1</td>
<td>European</td>
<td>2</td>
</tr>
<tr>
<td>Pakistani</td>
<td>20</td>
<td>3.1</td>
<td>Filipino</td>
<td>2</td>
</tr>
<tr>
<td>Australian</td>
<td>18</td>
<td>2.8</td>
<td>French</td>
<td>2</td>
</tr>
<tr>
<td>Chilean</td>
<td>17</td>
<td>2.6</td>
<td>Indonesian</td>
<td>2</td>
</tr>
<tr>
<td>New Zealand</td>
<td>11</td>
<td>1.7</td>
<td>Belgian</td>
<td>1</td>
</tr>
<tr>
<td>Guatemalan</td>
<td>11</td>
<td>1.7</td>
<td>Irish</td>
<td>1</td>
</tr>
<tr>
<td>Israeli</td>
<td>7</td>
<td>1.1</td>
<td>Mongolian</td>
<td>1</td>
</tr>
<tr>
<td>Dutch</td>
<td>6</td>
<td>.9</td>
<td>Moroccan</td>
<td>1</td>
</tr>
<tr>
<td>South African</td>
<td>6</td>
<td>.9</td>
<td>Total</td>
<td>612</td>
</tr>
</tbody>
</table>
Percentage of Sample Represented in the Final Selection

Although, the actual number of teachers responses in the final selection was somewhat smaller ($n = 652$), compared to the total responses to the questionnaire ($n = 736$), the final sample did represented 43 % of the total faculty ($N = 1499$) from the 24 schools. Figure 8 depicts the number of responses compared to the actual number of teachers in the schools.

Figure 8: Number of Faculty in the Sample and Number of Faculty Responses

Gender

Gender of teachers included in the analyzed data was similar to the gender of teachers in the U.S. and is consistent with data for all American Sponsored Overseas Schools as reported by Miller (2003). Sixty nine percent of the respondents were female while 31 % were male.
Figure 9: Gender of Respondents

Language of Respondents

Of the 652 teachers in the final selection, 75% ($n = 487$) listed English as their first language. This figure is consistent with the results of teacher respondents in the 36 schools who initially responded.

Teaching Experience

There was a wide variation in total teaching experience and teaching experience in their present school. Of the total selected population of 652 responding teachers the range of total experience was 44 years and the range of teaching experience in their present school was 39. The average teaching experience for the teachers in this sample was 15.8 years ($Range = 43, M = 15.8, SD = 8.9$) while the average years of experience at their present school was 6.9. ($Range = 39, M = 6.9, SD = 6.4$), Figure 10 presents the mean teaching experience for all teachers in international schools and the mean teaching experience in their present school.
Total teaching experience varied in the five different regions ($Range = 5.1$, $M = 15.3$, $SD = 1.85$). Teachers in the East Asia/Pacific region had the highest number of years of experience ($M = 17.8$). While teachers in Africa had the lowest average years of experience ($M = 12.7$). (See Figure 11)
Total teaching experience varied among the five different regions \((\text{Range} = 39, \ M = 15.8, \ SD = 8.93)\). Teachers in the East Asia/Pacific region had the highest number of years of experience \((M = 17.8)\) while teachers in Africa had the lowest average years of experience \((M = 12.7)\). (See Figure 12)
Figure 12: Average Teaching Experience by Region

Class Size

Reported class sizes in the sample schools are smaller than average class sizes reported in the U.S. states public schools, although they are similar to some private schools in the States. The mean class size was 15.7 for the elementary / middle school classrooms and 15.3 for the secondary classes. This compares to an average class size of 21.1 at the elementary / middle school levels and 23.6 for secondary classes in the U.S.(as reported by N.C.E.S. (2002) )

Elementary class sizes in the research sample ranged from a minimum of eight to a maximum of twenty two while the secondary class size range was similar, six to twenty five. Figure 13 displays the average class sizes for both elementary and secondary schools by region.
Figure 13: Average Class Size by Region

The 2003-2004 ISS Directory of International Schools ("The ISS Directory of International Schools 2003-2004," 2003) reports that international schools with total enrollments above 250 normally have class sizes in the 16-20 range at the secondary level and 15 or less at the elementary level. There were some notable class size variations between the ASOS regions with African school class sizes being significantly smaller. However, this may be accounted for by the relatively small size of the expatriate communities in many of the developing nations and the small sample size of the study.
Data Analysis of Research Questions

Research Question One

Are there effective school characteristics that are common in high performing overseas international schools?

Three characteristics: Frequent analysis of student progress, high academic expectations and positive school environment were at or above 4.0 “agree” indicating that the teachers in the high performing international schools agreed that these three effective school characteristics were present in their school. However, all of the mean scores of the eleven characteristics were on the “agree” side of the 5 – point Likert scale, i.e. above the neutral mean of 3.0. (See Figure 14 below)
Figure 14: Effective School Characteristics Common to High Performing Int’l Schools

The working definition of “high performing” was determined to be those elementary/middle schools who’s average score on standardized tests in grades 4, 6, and 8 were above the 50% and those high schools that had SAT average scores above the U.S. national average of 1026 (as reported by (Carnahan and Coletti, 2003)). Twenty one schools had standardized test score averages for grades 4, 6, and 8 above the 50th percentile. (Range 38%, $M = 71\%, SD = 11.72\%$). Sixteen of those schools also had high schools that reported SAT scores. All of the high schools reported SAT scores above the U.S. average and thus 16 K-12 schools met the requirement of a “High Performing” school. The minimum SAT average score of the 16 high schools in the sample was 1034 while the maximum average SAT score was 1250.
The sample international schools had a mean SAT score 90 points (8.7%) above the U.S. average. \((\text{Range 216, } M = 1115.7, \text{ SD} = 65.9)\) (See Figure 15)

![Figure 15: Average SAT Score Comparisons](image)

**Research Question Two**

What are the most important effective school characteristics of an effective international school based on the perceptions of teachers?

Teacher responses varied widely with 89% \((n = 655)\) of the teachers including “Positive School Environment”. \((\text{Range} = 47\%, \text{ } M = 56.6\%, \text{ SD} = 12.87\%)\) Conversely, only 43 percent of the teachers included “Basic skills acquisition” \((n = 313)\) (see Figure 16). All teacher responses \((N = 736)\) from the 36 responding schools were analyzed to determine which of the eleven characteristics teachers perceived to be the most important characteristics of effective international schools. Responders could pick one or more of the eleven characteristics.
Figure 16: The Most Important Effective School Characteristics as Perceived by Teachers

In response to the open ended question: “Are there other characteristics that have not been identified on this list that you believe are important to an effective international school?” Further opinions about effective school characteristics were entered by 26.5% (N = 736) of the teachers who responded from the 36 schools.

The additional characteristics identified were:

1. Greater cultural awareness (22.7%)
2. High level of student involvement (8.2%)
3. Top-quality teachers (7.2%)
4. Standardized and clear curriculum (7.2%)
5. Effective teaching practices (4.1%)
6. Strong co-curricular/extra-curricular programs (3.6%)
7. Good internal and external communications (3.1%)

The researcher categorized each of the 194 comments into either; one of the eleven already defined effective school characteristics or into seven new characteristics mentioned by the respondents.

Even though it was a factor that could be chosen from the list, one of the eleven effective school characteristics, strong instructional leadership was mentioned so often in the write in portion of the questionnaire, that it is included in figure 17.

![Figure 17: Additional Effective International School Characteristics Added by Respondents](image-url)
Research Question Three

Are there effective school traits that are more crucial to higher student achievement in International schools?

A Pearson correlation coefficient was calculated to determine what relationships, if any, existed between each of the eleven effective school characteristics and achievement scores. As suggested by Luyten (1994) secondary school datasets and elementary datasets were analyzed separately for this research question.

The analysis uncovered a significant correlation between the reported average test scores in grades 4, 6, and 8 and the characteristic, *learning time is maximized*” ($r = .37$, $p < .01$). There was a moderate correlation with *high academic expectations*” ($r = .37$). *Strong instructional leadership* had a very weak negative correlation ($r = -.09$). (See Table 7 and Figure 18)

Table 7: Correlations of Effective School Characteristics and Test Scores Gr. 4, 6, 8

<table>
<thead>
<tr>
<th></th>
<th>Learning Time is Maximized</th>
<th>High Academic Expectations</th>
<th>Effective Professional Development</th>
<th>Frequent Analysis of Student Progress</th>
<th>Parent/Community Involvement</th>
<th>Basic Skills Acquisition is Emphasized</th>
<th>Safe and Orderly Atmosphere</th>
<th>Positive School Environment</th>
<th>Clear Educational Mission and Goals</th>
<th>Teacher Involvement in Decision Making</th>
<th>Strong Instructional Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson's $r$</td>
<td>0.545</td>
<td>0.356</td>
<td>0.329</td>
<td>0.305</td>
<td>0.243</td>
<td>0.220</td>
<td>0.175</td>
<td>0.126</td>
<td>0.120</td>
<td>0.012</td>
<td>-0.089</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.009</td>
<td>0.104</td>
<td>0.134</td>
<td>0.168</td>
<td>0.276</td>
<td>0.326</td>
<td>0.436</td>
<td>0.576</td>
<td>0.594</td>
<td>0.958</td>
<td>0.694</td>
</tr>
</tbody>
</table>
A second analysis utilized a sub-sample of schools that reported SAT scores. The analysis revealed a moderate, but not significant, correlation between the reported SAT scores and two of the effective school characteristics, *learning time is maximized* ($r = .37$) and *high academic expectations*” ($r = .37$). As with the elementary/middle school analysis, *strong instructional leadership* had a weak negative correlation ($r = -0.21$).  (See Table 8 and Figure 19)
Table 8: Correlations of Effective School Characteristic and SAT Scores

<table>
<thead>
<tr>
<th></th>
<th>Learning Time is Maximized</th>
<th>High Academic Expectations</th>
<th>Safe and Orderly Atmosphere</th>
<th>Positive School Environment</th>
<th>Basic Skills Acquisition is Emphasized</th>
<th>Frequent Analysis of Student Progress</th>
<th>Effective Professional Development</th>
<th>Parent/Community Involvement</th>
<th>Teacher Involvement in Decision Making</th>
<th>Clear Educational Mission and Goals</th>
<th>Strong Instructional Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson r</td>
<td>0.37</td>
<td>0.37</td>
<td>0.29</td>
<td>0.28</td>
<td>0.15</td>
<td>0.11</td>
<td>0.10</td>
<td>0.02</td>
<td>0.10</td>
<td>-0.21</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.11</td>
<td>0.11</td>
<td>0.22</td>
<td>0.23</td>
<td>0.54</td>
<td>0.65</td>
<td>0.67</td>
<td>0.93</td>
<td>0.67</td>
<td>0.39</td>
<td></td>
</tr>
</tbody>
</table>

Figure 19: Correlations of Effective School Characteristic and SAT Scores
**Research Question Four**

Is there a correlation between the international schools that display a higher degree of the characteristics of effective schools and student achievement as measured by standardized tests?

Correlational analysis using Pearson’s r revealed no significant correlation between the mean “Effective School Characteristic Score” for each school and the mean SAT total for the high schools in the sample. \( r = .269, n = 20, p = .314 \) Figure 20 illustrates the fit line of the correlation.

![Figure 20: Correlation of SAT Scores and Effective School Characteristic Mean](image)

Analysis also revealed that there was no significant correlation between the mean Effective School Characteristics score and the average total standardized test scores in grades 4,
6 and 8 in the 24 sample elementary/middle schools. \((r = .294, n = 24, p = .184)\) Figure 21 depicts the computed regression line.

*Figure 21: Correlation of Gr. 4, 6, 8 Scores and Effective School Characteristic Mean*
CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

Discussion of Findings and Conclusion

This study attempted to view the effective school characteristics of international schools from four viewpoints.

1. The study attempted to find the presence or absence of effective school characteristics in the American style international schools in the sample through inquiry by designing the survey instrument with multiple questions for each of the defined characteristics. Multiple questions, targeted at one characteristic, were intended to add a higher level of internal consistency to the quantitative investigation.

2. The study attempted to compare the reality of the teacher’s school situation to their perceived educational utopia by asking the teachers to state what they believe are the most important characteristics of an effective international school. New characteristics, that may be unique to international schools, were also identified for further investigation.

3. The study was designed to investigate any individual factors that might underlie a correlation between standardized scores and effective school characteristics by disaggregating the effective school characteristics that may be most important to academic achievement.

4. The study endeavored to replicate traditional effective schools research with an entirely new population of schools, i.e. American style international schools with high socio-economic status and culturally diverse student populations by
correlating the school’s “effective school characteristic” mean with the schools standardized test score mean,

*Response Rate*

Of the 51 schools selected, 36 schools from 35 countries responded in varying degrees to the requests to participate in the research. Although not all of the 51 selected schools responded to requests to participate, those that did respond were randomly selected through stratified random sampling techniques and represented a cross section of the ASOS sponsored international schools. Therefore a degree of generalizability from these findings to international schools overseas is deemed possible.

Thirteen of the school administrators never responded to e-mail requests, even after repeated attempts. To verify the e-mail addresses, the researcher checked and rechecked the addresses and attempted to phone the non-responders. The researcher also attended the annual American Association of International Education conference in San Francisco in February 2004 and met with a number of the selected school administrators and personally asked for their cooperation. It should be noted that in each case where personal contact was made the administrator, and subsequently the teachers, responded to the questionnaire. The highest response rates also came from the schools of the administrators that had been contacted at the conference. This leads the researcher to suggest that although e-mail and internet connectivity have made the world seem much smaller, allowing almost instant access to international educators around the globe, face to face contact is still often the key to developing professional rapport and trust. The higher response rate may also mean that those administrators who traveled half way around the world to attend an educational conference have a proclivity toward school
improvement and would seek out methods that have the potential of enrich the profession, instead of viewing the request to participate in the research as another burden.

Initial contacts with the teachers, through the site administrator, provided varied response rates and were lower than expected. It was found that at least three reminders were necessary (after the pre-notice), one every two weeks, to get the maximum response from the faculty. There are a number of reasons for the lower than expected response rate that may prove to be a significant disadvantage when using electronic communications. First and foremost is the large amount of SPAM e-mail messages received by teachers and administrators daily. As Dillman (2000) points out in his book on mail surveys, getting the potential respondent to open the letter, or in this case to read the e-mail, is at the heart of social exchange theory.

“Social exchange is a theory of human behavior used to explain the development of continuation of human interaction. The theory asserts that actions of individuals are motivated by the return these actions are expected to bring, and in fact usually do bring, from others”(Dillman, 2000, p.14).

International school teachers and administrators are inundated with copious amounts of e-mail messages each day. Just as bulk postal mail causes recipients to throw out numerous envelopes without opening them, electronic SPAM; where hundreds of thousands of e-mails are sent to get just a few people to open the message, can overwhelm an e-mail box. Combine this with the security concerns caused by the proliferation of computer viruses and many e-mail users ignore and delete messages from someone they don’t know. The researcher also found that the imbedded URL often caused the security software at the school’s e-mail server to delete the message, labeling it as either SPAM or a virus. In later attempts at contact the imbedded URL was removed with subsequent higher rates of response.
Research Question One

Are there effective school characteristics that are common in high performing overseas international schools?

The vast majority of the teachers in the sample report all eleven of the characteristics were present in their school. The mean scores of three of the characteristics were at or above the “agree” level (4.0) and may be more prominent in this sample. These three characteristics are:

1. frequent analysis of student progress
2. high academic expectations
3. positive school environment

In the high performing schools, the mean scores for the eleven defined characteristics were all above the neutral response (3.0), \((Range = .62, M = 3.8, SD = .19)\), while the mean scores of three characteristics reported above were over 4.0. However, there is probably no important difference between the mean scores of these three characteristics and the mean scores of all eleven characteristics as they were all above the neutral score and only deviated slightly. The research therefore points to the importance of viewing the effective school characteristics as a whole, rather than separate entities. The public and our lawmakers often look for simple solutions that they believe can be easily implemented in the schools. One of the most popular proposed answers is the view that if teachers have high academic expectations the students will rise to the challenge. They suggest that if only the teacher’s would expect more, students would do more. Yet, although high academic expectations, positive school environment, or frequent analysis of student progress are desirable, they do not exist in a vacuum. “Educators have attempted to run with one or two correlates of Effective Schools, and their efforts have been
unsuccessful” (Taylor, 2002, pg 375). The public discourse ignores the idea that these effective school characteristics work best when they are supported by other characteristics.

**Research Question Two**

What are the most important effective school characteristics of an effective international school based on the perceptions of teachers?

*Positive school environment, high academic expectations, strong instructional leadership* and *greater cultural awareness* were reported as the most important characteristics by the teachers in this sample. This is probably the most interesting of the four questions and may highlight the differences between international and U.S. schools. International school teachers were asked to review the list of eleven characteristics and select the ones they believed were the most important to an effective international school. They could choose one or more of the eleven characteristics and then add any characteristic(s) that they believed was not represented in the list.

Six hundred and fifty five (89%) of the respondents (*N* = 752) included *positive school environment* in their choices. This is not surprising as a body of research suggests that school effectiveness is influenced by the quality of the school climate. In one of the first studies that looked at this characteristic, Brookover et al. (1979) found that school climate could be a powerful predictor of student achievement. In a review of the research Owens (1998) found that:

… schools that emphasize supportive, open communications, collaboration, intellectuality, and that reward achievement and success outperform (in terms of achievement, attendance, drop-out rate, frustration, alienation) those that emphasize constraint, restrictiveness, rigidity, coldness, lack of excitement and reward conformity (p.266).
The second most popular choice, *high academic expectations* was chosen by 70% of the teachers in the sample. This choice is also supported by a number of educational researchers who have found that schools that create *high academic expectations* and give the students and teachers the educational support required to reach those expectations have high rates of academic success (Edmonds, 1979; Levin, 2001; Rutter, 1979).

*Strong instructional leadership* was chosen by 62% of the respondents as an important characteristic and, even though *strong instructional leadership* was on the list to choose from, it was also added by a 16% of the respondents who offered their own comments. The analysis of the data for research question three reveals that in this study the characteristic *strong instructional leadership* had a weak negative correlation in both the k-8 schools and in the high schools in the sample. Yet, a majority of the teachers who responded to the questionnaire believed that *strong instructional leadership* was an important characteristic of an effective international school. As this characteristic continues to be the most controversial it seems that school leadership in international schools is deemed very important by the teachers. Their definition may more closely follow the model of “the teacher as a leader of teachers and the curriculum while the principal as a leader of leaders” (Kellison, 2001, p.1).

In the write-in section of the questionnaire, 194 respondents added comments and additional characteristics. When the written responses were broken down and categorized it was found that almost one quarter (22.7%) of those teachers who added characteristics chose to add “cultural awareness”.

As schools overseas have great diversity, the results indicate that international school teachers believe that greater cultural awareness of both the host country’s culture and the culture
of the other pupils in the school strengthens the international school’s educational process, product and potential. Cultural diversity is seen as a strength by the respondents.

Research Question Three

Are there effective school traits that are more crucial to higher student achievement in International schools?

This question was analyzed separately for the grade 4, 6, and 8 test results and for the SAT results for high school students. Each of the characteristics was also disaggregated and then viewed separately at both levels. Although there were moderate to weak correlations, the only significant correlation ($p < .01$) was found between the grade 4, 6, and 8 standardized scores and the characteristic, learning time is maximized. This correlation was not evident in the analysis of high school student achievement based on SAT results.

Coyle (1992), Degenhart (1990) and others have also found positive correlations with similar characteristics, i.e. “time on task”, “increased learning time”. Yet, other studies that included students of middle/high economic status have not found similar correlations. Higdon (1987) found a moderate, but insignificant correlation between maximized learning time and standardized test scores of low SES students. Higdon (1987) found there was little correlation between any of the effective school characteristics and student achievement of middle/high socioeconomic status students.

The most fascinating result was the negative correlation, although weak, between strong instructional leadership and student achievement as measured by norm-referenced standardized tests in both grades 4, 6, and 8 and SAT scores of high school students.
Lezotte (1992c) stated in 1991 that “through its history, all effective schools research in elementary, middle and secondary schools have identified instructional leadership as critical” (p. 14). Yet, instructional leadership continues to be one of the more contentious of the identified effective schools characteristics. Lezotte asserts that much of the controversy stems from the misunderstanding of what leadership is and how it works. He goes on to say that many teachers view the phrase strong instructional leadership negatively and believe that the term identifies an educational administrative structure where a principal controls the school like a despot.

However, when teachers in this sample of international schools were asked to state what they believed were the most important characteristics of an effective international school (research questions 2) they indicated that strong instructional leadership is vital to a school’s success. The responses to the questionnaire did not support their expressed opinion. No positive correlation was found, in fact there is a weak negative correlation, in both the high school and the elementary school, between strong instructional leadership and student achievement.

The results of Pruitt’s study of Florida principals, (2002) revealed that principals self-report a strong instructional leadership style in both higher performing public schools and in minimum performing public schools, again indicating that it is difficult to find a definitive positive relationship between a strong (i.e. effective) instructional leadership style and student achievement. This finding of this study adds to the controversy. International school teachers believe that strong instructional leadership is important to school success, yet the only correlation that was found in this study between the characteristic and students achievement was negative.
Research Question Four

Is there a correlation between the international schools that display a higher degree of the characteristics of effective schools and student achievement as measured by standardized tests?

This final research question was the heart of the study. Without disaggregating the characteristics the researcher attempted to determine if there is a relationship between the combined “effective school characteristic” scores in American style international schools and norm-referenced standardized test scores.

Correlational analysis revealed that there was no statistically significant relationship between the dependent variables (norm referenced test scores for grades 4, 6, and 8 and SAT scores in high school) in the international schools in this sample and the independent variable (effective school characteristics perceived by teachers). These findings, although contradictory to the results of many of the classical effective schools research, are consistent with other findings in the literature. Zigarelli (1996a) found no evidence that effective school characteristics were related to student performance. As did Coleman et al. (1966), The Plowden Committee (1967) and Jencks (1972), Zigarelli concluded that success on standardized tests seems to be more related to student and family variables.

Higdon’s (1987) study examined the correlation between student achievement and the effective schools correlates, defined by the Connecticut State Department of Education, in selected Wyoming high schools. He found there was little correlation between any of the effective schools correlates and the achievement of middle/high socioeconomic status students. He did find small correlations with lower SES students, but none that were significant.

In an unpublished dissertation Lamendola (2002) found no significant correlation between school performance and effective school characteristics in low SES elementary schools.
in Buffalo, New York. The findings of this research supports the proposition of Lamendola (2002) that the presence of effective school characteristics may be baseline competencies of all schools.

**Conclusion**

Although 36 schools responded in some degree to the questionnaire, there were 15 who did not respond, even after repeated attempts to communicate with their administrators. The administrators were the gate keepers as it was necessary to obtain their cooperation before contact with the teachers could be established; leaving the impression that the twenty four schools were somewhat self-selected depending on the administrator’s inclination toward the research. The results from the schools who did respond to the questionnaire indicated that all eleven characteristics were evident in their schools. This information leads to the supposition that the non-responding administrators did not want their teachers to reply to a questionnaire that might start a professional discourse about the characteristics or reveal that effective school characteristics were lacking in their school. Four of the school administrators refused to send the teachers the questionnaire stating that their faculty was too busy; even though they were assured that the questionnaire took only 8-10 minutes to complete. Another administrator sent the request to the teachers only once stating, “I have seen how these kinds of questionnaires can create negative feelings”. The refusal to participate could be an indication that the administrator did not want to open themselves up to criticism. As the number of responding schools with viable percentages of teacher responses was less than half of the random sample selection the researcher is somewhat reluctant to paint a broad stroke and to suggest that these findings can be
inferred to the larger population of American style international schools however, there are some inferences that can be made.

Although one or two of the characteristics in this research study seem to be more important, the analysis of the four research questions leads to the conclusion that all of the eleven effective school characteristics must be in place as a foundation for effective student learning. In this and in other effective school studies the characteristics do not, even as a whole, directly correlate to higher academic achievement as measured by standardized tests, especially when students in a school score above the national average on norm referenced assessments. This statement is especially significant as society seems to be looking for simple solutions and often regard the characteristics as disconnected factors. Adequate consideration is not given to the interactions of the effective school characteristics or to their effect on school success over the longer term. Even today, many educational administrators construct checklists of effective characteristics based on early effective schools research conclusions and then seek to put them into practice in a parallel but not necessarily integrated way.

The issue of strong instructional leadership has remained controversial for many years. This study does little to clear up the confusion as direct conflicts were revealed between the teachers’ ideals of an effective international school and the correlation of the scores to the characteristic of strong instructional leadership. The analysis uncovers the uncomfortable conclusion that students in high socio-economic schools may learn in spite of the leadership of the school, not because of it. In the teachers’ opinion however, this is far from the case. Their responses indicate that they believe that strong instructional leadership is important to their success as teachers. Strong instructional leadership leads to a positive school environment that then leads to a safe and orderly school and so on. This observation is a further confirmation that
no one characteristic can stand by itself. If a school possesses all the characteristics the environment for learning is optimal. If not, the weakest link can break the chain of educational success. For the teachers in this study, the anchor may well be strong instructional leadership from the administrator in charge.

Another significant finding from the responses of the teachers was the importance of greater cultural awareness and the view that this characteristic was a strength that led to a more effective learning. This response was first interpreted as unique to international schools, but further reflection leads to the suggestion that this finding may be applicable to the U.S. schools which grow more culturally diverse everyday. All too often in public schools and in public discourse about education, cultural diversity is seen as a hurdle to overcome instead of a ladder to success. Nick Prag, (2003) publisher of EUbusiness reflects on the strengths of cultural diversity:

One of the public's greatest concerns on the road to European integration is about losing cultural identity. Since 1991, however, the EU has recognized that it is in its diversity that Europe's cultural strength lies. The Maastricht treaty stated that the Union "shall contribute to the flowering of the cultures of the Member States, while respecting their national and regional diversity (p.1)

Greater cultural awareness that leads students to the collective wisdom of humanity may be an important characteristic of more effective schools both in the U.S. and abroad.

At the core of the uncertainty over what constitutes an effective school is the roll of socio-economic status in the prediction of academic success. Numerous studies have shown that socio-economic status is a strong factor in the prediction of student achievement. One of the main differences between international schools and schools studied in earlier effective schools
research is the socio-economic status of the families. American style international school students have many of the stress factors frequently associated with low achievement in the U.S. They often speak English as a second language, they and their families move regularly, their classmates come from many different cultural backgrounds, their fathers and mothers are often absent, some live under the threat of terrorism and they live in a culture that is not their own. Given these limitations the majority of these students are still very successful academically. Due to their socio-economic status, the parents of international school students are well-educated; they travel, read, have excellent health care, and the children have friends who also have high academic aspirations. Again, this difference appears to be much more important than the presence or absence of effective school characteristics in their academic achievement. Although effective school characteristics were reported to be present at the international schools the degree to which they exist has no direct correlation to achievement. What seems to be the main factor in the academic success of international school students is the same factor proposed by Coleman (1967) almost 40 years ago, socio-economic status. Does this relationship as Edmonds (1979) argued, relieve the teachers of their responsibility to teach? Of course not, the findings instead spread the responsibility for effective education to society as a whole. Teachers and schools cannot do this alone; they must have the support of their leaders and of the general public.

From the effective schools research starting in the 1970s to today, the information base relating to school effectiveness continues to expand as researchers have attempted to identify and then circulate specifics about effective school characteristics. Some of the early researchers have taken their findings and turned them into commercial programs, selling the idea of effective school characteristics as the solution for perceived educational failings. Unfortunately we do not have a precise depiction of the comparative success of the effective characteristics or of the ways
these characteristics work together to generate academic outcomes in the wide variety of school settings. When politicians, educators and the public ask what set of school characteristics possesses the best guarantee of high student achievement, educational researchers can point to some exciting findings, but we still have no verifiable response to the problem as the critical element may be the economic strength of the family. By investigating a special group of schools this study adds a small but important piece to the puzzle.

**Recommendations for Further Research**

1. Further research is needed into the dichotomy between the international school teacher’s responses that strong educational leadership is important to an effective international school and the findings in this study that *strong instructional leadership* was negatively correlated to standardized test scores.

2. International school teachers identified cultural awareness as an effective school characteristic. Yet, this researcher did not find any mention of cultural awareness as a characteristic of effective schools in the literature. Is this an international school phenomenon? Or, given the increasingly diverse nature of students in the U.S. has this characteristic been overlooked?

3. Is there a relationship between teacher gender, language, age, and/or nationality and responses on this or a similar effective school characteristic questionnaire?

4. In contrast to, or in conjunction with, whole school characteristics, how do effective classroom teaching practices alter student achievement in international schools?
5. Is there a more effective way to utilize electronic responses for international school surveys that will yield a higher response rate and where the administrator of the school is not the gate keeper?
Africa

1. Angola, Luanda: Luanda International School
2. Botswana, Gaborone: Westwood International School
3. Burkina Faso, Ouagadougou: International School of Ouagadougou
4. Cameroon, Yaounde: American School of Yaounde
5. Chad, N'Djamena: American International School of N'Djamena
6. Congo, Democratic Republic of the, Kinshasa: The American School of Kinshasa
7. Cote d'Ivoire, Abidjan: International Community School of Abidjan.
8. Egypt, Alexandria: Schutz American School
9. Egypt, Cairo: Cairo American College
15. Guinea, Conakry: International School of Conakry.
17. Lesotho, Maseru: American International School of Lesotho.
24. Morocco, Tangier: The American School of Tangier.
30. Senegal, Dakar: International School of Dakar
31. Sierra Leone, Freetown: American International School of Freetown.
33. Sudan, Khartoum: Khartoum American School.
34. Swaziland, Mbabane: Sifundzani School.
35. Tanzania, Dar es Salaam: International School of Tanganyika.
37. Tunisia, Tunis: American Cooperative School of Tunis.
38. Uganda, Kampala: Lincoln International School of Uganda.
40. Zimbabwe, Harare: Harare International School

East Asia and Pacific

2. Cambodia, Phnom Penh: International School of Phnom Penh.
5. China, Hong Kong: Hong Kong International School.
8. Indonesia, Jakarta: Jakarta International School.
19. Mongolia, Ulaanbaatar: International School of Ulaanbaatar.
22. Taiwan, Kaohsiung: Kaohsiung American School.
23. Taiwan, Taipei: Taipei American School.

Europe
1. Albania, Tirana: Tirana International School.
7. Bosnia-Herzegovina, Sarajevo: QSI International School of Sarajevo.
10. Czech Republic, Prague: International School of Prague.
11. Denmark, Copenhagen: Copenhagen International School.
15. Georgia, Tbilisi: QSI International School of Tbilisi.


26. Ireland, Dublin: St. Andrew's College.

27. Italy, Florence: American School of Florence.

28. Italy, Milan: American School of Milan.


33. Latvia, Riga: The International School of Latvia.

34. Lithuania, Vilnius: American International School of Vilnius.

35. Macedonia, Skopje: QSI International School of Skopje.


37. Moldova, Chisinau: QSI International School of Chisinau.

38. Netherlands (The), Rotterdam: American International School of Rotterdam.


40. Norway, Stavanger: International School of Stavanger.

41. Poland, Krakow: American International School of Krakow.

42. Poland, Warsaw: American School of Warsaw.


44. Romania, Bucharest: American International School of Bucharest
45. Russia, Moscow: Anglo-American School of Moscow.
46. Russia, St. Petersburg: Anglo-American School of St. Petersburg.
47. Russia, Vladivostok: QSI International School of Vladivostok.
49. Slovak Republic, Bratislava: QSI International School of Bratislava.
50. Slovenia, Ljubljana: QSI International School of Ljubljana.
51. Spain, Barcelona: Benjamin Franklin International School
52. Spain, Barcelona: The American School of Barcelona.
53. Spain, Madrid: American School of Madrid.
54. Switzerland, Bern: International School of Bern.
55. Turkey, Istanbul: Istanbul International Community School
56. Turkmenistan, Ashgabat: Ashgabat International School

Near East

3. India, Mumbai: The American School of Bombay.
5. Israel, Tel Aviv: American International School in Israel, Inc.
7. Kuwait, Kuwait: The American School of Kuwait.
8. Lebanon, Beirut: American Community School.
10. Oman, Muscat: The American International School of Muscat.
11. Pakistan, Islamabad: International School of Islamabad.
15. Qatar, Doha: American School of Doha.

Western Hemisphere

1. Argentina, Buenos Aires: Asociacion Escuelas Lincoln
2. Bolivia, Cochabamba: American International School of Bolivia
5. Brazil, Belo Horizonte: The American School of Belo Horizonte.
7. Brazil, Recife: American School of Recife.
9. Brazil, Salvador de Bahia: Pan American School of Bahia.
17. Dutch Caribbean, Aruba: International School of Aruba
19. Ecuador, Quito: Cotopaxi Academy.
20. Guatemala, Guatemala City: Colegio Maya
21. Guatemala, Guatemala City: The American School of Guatemala
26. Mexico, Guadalajara: The American School Foundation of Guadalajara
27. Mexico, Mexico City: The American School Foundation, A.C..
28. Mexico, Monterrey: The American School Foundation of Monterrey, A.C.
29. Mexico, Puerto Vallarta: The American School of Puerto Vallarta.
30. Netherlands Antilles, Curacao: International School of Curacao.
31. Nicaragua, Managua: American-Nicaraguan School
32. Panama, Panama City: The International School of Panama

33. Paraguay, Asuncion: American School of Asuncion

34. Peru, Lima: American School of Lima

35. Trinidad and Tobago, Port-of-Spain: International School of Port-of-Spain

36. Uruguay, Montevideo: Uruguayan American School of Montevideo.


38. Venezuela, Caracas: The International School of Caracas.

APPENDIX B: STRUCTURE MATRIX
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Extraction Method: Maximum Likelihood.
Rotation Method: Promax with Kaiser Normalization.
APPENDIX C: E-MAIL CORRESPONDENCE FOR PILOT STUDY
Pilot Study Contact: Administrator

E-mail subject line: Research Help Needed – Effective International Schools Pilot Study

February 17, 2004

Dear (Administrator’s first name),

I hope everything is going well for you both personally and professionally this year.

My doctoral course work is finished and my dissertation proposal has been accepted. Now, I am hoping you can help me pilot the web-based questionnaire.

I know you are familiar with “Effective Schools” research that has tried to identify characteristics that are common in schools with better than average student achievement. Although this research has been used as an improvement blueprint by many schools I am unable to find any effective schools research that has utilized findings from international schools.

Therefore, I am conducting a study to determine if there is a correlation between “Effective School” characteristics and the consistently high student achievement in schools like (School name).

With your permission I will ask the (School initials) teachers to complete a web-based questionnaire. This is a pilot study to prepare for the final questionnaire that will be sent out in early March.

For the statistical analysis, I will also need standardized test information. You, or one of your staff, can send the standardized test information for (School initials) by going to the website www.effective-international-schools.org, selecting “test info” and then completing the information sheet. Although this information will be confidential and used only for statistical purposes, I will gladly share the results and the final analysis for your school, without identifying teacher information, with you if you so desire.

Thanks for your help.

Sincerely, Jim

James A. Doran
Stetson University - Celebration Campus
800 Celebration Ave
Celebration, Fl 34747

E-mail: jdoran@stetson.edu
Phone: (321) 939-7602
Fax: (321) 939-7606
Dear (School name) Faculty,

I hope everything is going well for you this year.

My doctoral pursuit is still on track. The course work is finished, I passed my comprehensive exams, my proposal has been accepted and I hope to defend my dissertation this summer. However, before I do that, I need your help with the web-based questionnaire that will be the basis for gathering the data needed for my research.

Some of you may be familiar with “Effective Schools” research that has tried, for the last 30 years, to identify characteristics that are common to schools with better than average student achievement. Although this research has been used as an improvement blueprint by many international schools I am unable to find any “Effective Schools” research that has actually utilized findings from international schools. Therefore, I am conducting a study to determine if there is a correlation between “Effective School” characteristics and the consistently high student achievement in international schools like your school.

With your (Administrator’s title and last name) permission and the approval of your principals, I am asking all the teachers at the school to complete a web-based questionnaire. This is a pilot study to prepare the final questionnaire that will be sent out to schools around the world in March.

You can respond to the questionnaire by going to the website www.effective-international-schools.org, selecting “questionnaire” and answering all the items on the five page document. It should not take you more than 10 minutes. Please do not discuss your answers with your colleagues as I need individual, not group responses, to the items.

Any comments, criticisms and/or suggestions concerning the questionnaire or the web pages are welcome. You can send them to me by using the comments box on the “Thank You” page or you can send them directly to me by e-mail: jdoran@stetson.edu

The information you provide will be strictly confidential and will be used only for statistical purposes. Teacher or school demographic information will not be shared.

Thanks for your help; your cooperation is vital to the success of this project.

Sincerely, Jim

James A. Doran
Stetson University - Celebration Campus
800 Celebration Ave
Celebration, Fl 34747
E-mail: jdoran@stetson.edu
Phone: 321-939-7602
Fax: 321-939-7606
E-mail subject line: Research Help Needed – Effective International Schools

March 31, 2004

(Title) (Administrator’s full name), (Position)

Dear (Title) (Administrator’s last name),

I need your help with my doctoral thesis. I am conducting a study to determine if there is a correlation between “Effective School” characteristics and the consistently high student achievement in international schools.

You may be familiar with “Effective Schools” research that has tried to identify characteristics that are common in schools with better than average student achievement. Although this research has been used as a school improvement blueprint by many schools, including international schools, I am unable to find any effective schools research that has utilized findings from international schools. After working in these highly successful schools for more than 25 years I believe we are in a position to make a unique contribution to the educational world by identifying the characteristics unique to international schools.

(School name) is one of 51 schools that have been selected, through stratified random sampling techniques, to represent international schools in your region. In order to complete this study, I am requesting standardized test information from your school and information from your teachers concerning effective school characteristics.

I have tried to make the submission process as easy as possible. If you agree to help me with this research you can send (School name) standardized test information by going to my website: www.effective-international-schools.org, clicking on the “Administrators” link on the home page and filling out the standardized test information form.

With your permission I will ask teachers in (School initials) to anonymously complete a web-based questionnaire on Effective School Characteristics. The results of the questionnaires and the standardized test information will remain strictly confidential and will only be used for statistical analysis.

I will send the teacher message in a separate e-mail so you may simply forward it to them. Instructions for filling out the questionnaire will be in that message. Or, if it would be easier, I will send the message directly if you will send me the faculty e-mail list.

I realize that gathering and sending this information will take some of your valuable time, but I believe the results will be well worth the effort.

There are no direct benefits or compensation to participants. However I will gladly share your school’s results and the final analysis with you confidentially if you so desire. I will also present the research findings, without names or identifying information, at the AAIE conference next year.

Your support of this project is critical to its success. Thank you.

Sincerely,

James A. Doran
Stetson University - Celebration Campus
800 Celebration Ave, Celebration, Fl 34747
E-mail: jdoran@stetson.edu
Phone: 321-939-7602
Fax: 321-939-7606
E-mail subject line: Research Help Needed – 2nd Appeal

April 5, 2004

(Title) (Administrator’s full name), (Position)

Dear (Title) (Administrator’s last name),

Last week I sent you an e-mail asking for your help with research on Effective International Schools. I hope you have received it.

If you have already replied, thank you! If not, please take a few minutes to read and respond to the following message.

I realize how busy you are, especially at this time of year, but I really do need your assistance. I have included a summary of the original letter, just in case the first one was lost in “cyber-space”.

Sincerely, Jim Doran

(School name) is one of 51 schools around the world that has been selected, through stratified random sampling techniques, to represent international schools in your region. In order to complete this study, I am requesting standardized test information from (school initials) and information from your teachers concerning effective school characteristics.

I have tried to make the submission process as easy as possible. If you agree to help me with this research you can send your school’s standardized test information by going to my website: www.effective-international-schools.org, clicking on the "Administrators" link on the home page and filling out the standardized test information form.

If you do not use standardized testing, or do not have all grade levels represented at your school, please let me know and I will send you a form by e-mail. If you would like you could also send any academic information you have in a form that is convenient to you.

With your permission I will ask teachers in your school to anonymously complete a web-based questionnaire on Effective School Characteristics. I will send the teacher message in a separate e-mail so you may simply forward it to them. Instructions for filling out the questionnaire will be in that message.

The results of the questionnaires and the standardized test information will remain strictly confidential and will only be used for statistical analysis.

I realize that gathering and sending this information will take some of your valuable time, but I believe the results will be well worth the effort. There are no direct benefits or compensation to participants. However I will gladly share your school’s results and the final analysis with you confidentially if you so desire. I will also present the research findings, without names or identifying information, at the AAIE conference next year.

Sincerely,

Jim
E-mail subject line: Research Help Needed – Effective International Schools

Dear (School Name) Faculty,

I need your help with some important research I am conducting.

Some of you may be familiar with "Effective Schools" research that has tried, for the last 30 years, to identify characteristics that are common in schools with better than average student achievement. Although this research has been used as an improvement blueprint by many international schools I am unable to find any "Effective Schools" research that has actually utilized findings from international schools. Therefore, I am conducting a study to determine if there is a correlation between "Effective School" characteristics and student achievement in international schools like (school name).

With (administrator’s name) permission, I am asking all the (school initials) teachers to complete a web-based questionnaire.

You can respond to the questionnaire by going to the website www.effective-international-schools.org, selecting "questionnaire" and answering all the items on the six page document. It should not take you more than 10 minutes.

Please do not discuss your answers with your colleagues as I need individual, not group responses, to the items.

Any comments, criticisms and/or suggestions concerning the questionnaire are welcome. You can send them to me by using the comments box on the "Thank You" page or you can send them by e-mail to jdoran@stetson.edu

Be assured that the information you provide will be kept strictly confidential and will be used only for statistical purposes. No individual responses will be identified.

Thanks for your help; your cooperation is vital to the success of this project.

Sincerely,

Jim

James A. Doran
Stetson University - Celebration Campus
800 Celebration Ave,
Celebration, Fl 34747
Questionnaire Second Contact: Teachers

Subject line: Effective International Schools Research Reminder

Dear (Administrator’s name),

Thank you for your help with my research. So far I have received (number) responses from (School name).

Would you mind sending the letter below to your teachers? Many have probably forgotten about the first request.

As you know, getting the data is often the hardest part of the research process.

The standardized test information I need for your school can be found by going to the website: www.effective-international-schools.org and then clicking on the "Administrators" button.

Again, thank you.

Jim

---------------------------------------------------------------------------------------------------------------------------------------

April 13, 2004

Dear (School name) Faculty,

Last week (Administrator’s name) forwarded an e-mail message from me that asked you to fill out a questionnaire on the Characteristics of Effective Schools. (School name) is one of 51 schools selected in a random sample of international schools. Therefore your responses are very important as they statistically represent the opinions of international teachers around the world.

If you have already completed the questionnaire, please accept my sincere thanks. If not, please do so today by going to www.effective-international-schools.org and selecting "questionnaire".

I am especially grateful for your help because it is only by asking caring teachers like you that I am able share the good things we do in international education to improve education for all students.

If you did not receive the original message or were not able to fill out the questionnaire due to your busy schedule, please do so today. It only takes a few minutes.

Again, go to www.effective-international-schools.org and select "questionnaire". If you have any questions, please contact me by e-mail: jdoran@stetson.edu

Thank you,

Jim

James A. Doran
Stetson University - Celebration Campus
800 Celebration Ave
Celebration, Fl 34747
Subject Line: Desperate Plea from a Desperate Doctoral Candidate

May 3, 2004

(Administrator’s title, full name, and position)
(School name)

Dear (Administrator’s first name),

I really need your assistance. Over the past two months, I have sent you messages requesting your help in an important research project on Effective School Characteristics in International Schools. As the (School name) has been selected by a stratified random sample your information is crucial to the validity of my research. Many schools have already replied to my pleas, but unfortunately not enough have answered for a valid analysis.

I asked for two things in the previous e-mails: standardized test data and teacher responses to a web-based questionnaire. I realize that for many of you the school year is drawing to a close. If you and the (School initials) staff can still collate and enter the standardized test information, I would certainly appreciate it. Please go to www.effective-international-schools.org, select administrators, and enter the scores. (You can also send it to me in any form that is more convenient for you.) If you do not use standardized tests, I can note that in my analysis.

I need your help. The teacher responses to my questionnaire are crucial to the research. I urgently need their input to complete my writing this summer.

Would you please forward the following teacher message them?

Thanks for your support; this is a desperate plea from a desperate doctoral candidate!

Sincerely, Jim

James A. Doran
Stetson University - Celebration Campus
800 Celebration Ave
Celebration, Fl 34747
Teacher Message:

Subject Line: Desperate Plea from a Desperate Doctoral Candidate

May 3, 2004

Dear (School name) Faculty,

I urgently need your help to complete my doctoral dissertation. I have been an international school educator for the past 25 years and I know how hard you work and what great schools you work in. Therefore, I am centering my research on schools like (School initials) as I believe you are in a position to make a unique contribution to the educational world.

I know many of you are familiar with “Effective Schools” research that has tried, for the last 30 years, to identify characteristics that are common to schools with better than average student achievement. Although the findings have been used as an improvement blueprint by many international schools I am unable to find any “Effective Schools” research that has actually utilized information from schools like the (School name).

Therefore, I am asking the (School initials) faculty to complete a web-based questionnaire by going to www.effective-international-schools.org, selecting “questionnaire”, and answering all the items on the six page document. This task will take you less than 10 minutes to complete.

The information you provide will remain strictly confidential and will only be used for statistical purposes. Your comments are also welcome and can be entered on the “Thank you” page at the end of the document.

As I told (Administrator’s title and name), this is a desperate plea from a desperate doctoral candidate who needs your responses to complete my dissertation this summer. Thanks for your support.

Sincerely,

Jim

If you have any questions, please do not hesitate to contact me at: jdoran@stetson.edu

James A. Doran
Stetson University - Celebration Campus
800 Celebration Ave
Celebration, Fl 34747
Dear (Administrator's first name),

Thank you for your help over that past few weeks. Last week's "desperate plea" resulted in a flurry of teacher responses. As of this weekend I have received (number) complete questionnaires from the (School Name) faculty.

However, I have found that it takes 2-3 reminders and a few desperate pleas to get the maximum response rate.

May I impose on you one more time? Would you please forward the following teacher message to them? Hopefully I can get a few more responses from the (School Name) faculty before the end of the school year ends for most international schools. I will end data collection May 30, so I only have a couple more weeks to get the maximum responses needed for a "statistically significant" study.

Sincerely, Jim

Teacher Message:

May 10, 2004

Dear (School Name) Faculty,

Thank you for your reply to my desperate plea for research help. I have received (number) responses from the (School Name) teachers so far. Your support has been heart warming.

If you have already completed the questionnaire, please accept my sincere thank you. If you have not already completed the questionnaire, please do so today by going to http://www.effective-international-schools.org and selecting "questionnaire".

I know this is a busy time of the year, but the survey takes less than 10 minutes to complete and your answers will provide educational information unattainable in any other manner. Data collection will end on May 30, so I need your reply soon.

Again, if you could, please go to http://www.effective-international-schools.org and add your opinion to this important study.

Sincerely,

Jim
Welcome to the Effective International Schools Research Web Site

Conducted by Jim Doran, Stetson University & University of Central Florida

You have been directed to this site to assist with some important research concerning the "Characteristics of Effective Schools" that may be evident in the International Schools where you work. To view these characteristics as I have defined them for the purposes of this research please click here: Characteristics.

I believe that a better understanding of how these characteristics affect student achievement will contribute to improved schools, whether public or private, in the U.S. or abroad.

The information you provide will remain strictly confidential and no names will be used or identified in the written report. Data will only be used for statistical purposes and participation is voluntary. The final report will be provided to the U.S. Office of Overseas Schools and will be presented at the 2005 A.A.I.E Conference.

Your cooperation is critical to the success of this project and is greatly appreciated.

Administrators: Please click Test Info to provide your schools standardized test information.

Teachers: Please click Questionnaire to answer the questionnaire. It should take you less than 10 minutes to complete.

If you would like more information about my research proposal click Research Proposal or e-mail: jdoran@stetson.edu

There are no known risks to the participants or to the schools in the sample. There are no direct benefits or compensation. Questions or concerns about research participants’ rights may be directed to: The UCF IRB Office, University of Central Florida Office of Research, Orlando Tech Center, 12443 Research Parkway, Suite 207, Orlando, FL 32826. (407) 823-2901.
**Test Information Submission Form**

**Effective International Schools Research - Jim Doran, (j.doran@stetson.edu)**

Enter School Name Here

Title of Person Providing Information

**Elementary / Middle School Tests**

This information is for statistical purposes only and will remain strictly confidential. No names will be used or identified in the written report.

Click to Select Elementary/Middle School Test

<table>
<thead>
<tr>
<th>2003 Elementary / Middle School Mean Percentile Scores</th>
<th>Average Class Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grade</strong></td>
<td><strong>Reading</strong></td>
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<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>2</td>
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<td>3</td>
<td>0</td>
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<tr>
<td>4</td>
<td>0</td>
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<td>5</td>
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<td>6</td>
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<td>7</td>
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<tr>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

**2003 High School Mean Standardized Test Scores**

Please write the average (mean) score for each test in the corresponding box. Write "NA" if the test is not given in your school.

<table>
<thead>
<tr>
<th>SAT</th>
<th>Verbal</th>
<th>Math</th>
<th>Students Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACT</th>
<th>Average Points</th>
<th>Students Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IB Diploma Tests</th>
<th>Average Points</th>
<th>IB Candidates Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>0</td>
</tr>
</tbody>
</table>

[Click Here to Submit]
**Effective International School Characteristics - Jim Doran (j.doran@stetson.edu)**

> **Before you begin, please enter your school's name in the box below**

<table>
<thead>
<tr>
<th>Page</th>
<th>School Name</th>
<th>How much do you agree or disagree with the following statements about your school?</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teachers and administrators operate as a professional team.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The school develops yearly goals and objectives.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>School rules and procedures are shared with students and parents.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>An atmosphere of trust and respect exists among parents, students, teachers, and administrators.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Instructional effectiveness is of utmost importance in classroom and school-wide decision making.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Student academic performance is monitored regularly.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Instructional time is maximized by limiting classroom interruptions.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Teachers, administrators, and parents participate regularly in curricular and instructional decisions.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Cultural differences are addressed in the professional development program for teachers.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Teachers are encouraged to assume leadership responsibilities.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Higher order thinking skills are an important part of basic skills instruction at the school.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
<td></td>
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</tbody>
</table>

*After completing your selections, please click “submit” to go to the next page.*

15% complete
<table>
<thead>
<tr>
<th>Page 2/6</th>
<th>Example School Name</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>The principal is involved in the development of the school's curriculum.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>13</td>
<td>The school's philosophy, goals, and objectives are communicated to all members of the school community.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>14</td>
<td>Disciplinary rules are applied in a fair and consistent fashion.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>15</td>
<td>Cultural differences are respected and used to strengthen the school community.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>16</td>
<td>Student academic expectations are high.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>17</td>
<td>Academic assessment is aligned with instructional goals.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>18</td>
<td>There are few instructional interruptions.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>19</td>
<td>School goals are developed with the input of the school community.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>20</td>
<td>Professional development activities are specific to the school's needs.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>21</td>
<td>Teachers are asked to participate in the budgeting process.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>22</td>
<td>Grade level or subject level curriculum includes minimum performance standards.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
</tbody>
</table>

After completing your selections, please click "submit" to go to the next page. 32% complete
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<thead>
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<th>Page 3/6</th>
<th>Example School Name</th>
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<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>The principal is involved in improving instructional practice.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>24</td>
<td>Teachers share the school’s instructional goals with their students.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>25</td>
<td>Parents support the school’s discipline procedures.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>26</td>
<td>Students display a positive attitude toward school.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>27</td>
<td>All students are expected to succeed.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>28</td>
<td>Academic performance is assessed using a variety of methods.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>29</td>
<td>Transitions between classes are smooth and efficient.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>30</td>
<td>Parents are active participants in developing school policies.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>31</td>
<td>Teachers are asked to help plan and evaluate professional development activities.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>32</td>
<td>Teachers are involved in developing the school’s yearly goals.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
</tr>
<tr>
<td>33</td>
<td>Students are taught to apply the basic skills learned in the classroom.</td>
<td>SA ○</td>
<td>A ○</td>
<td>N ○</td>
<td>D ○</td>
<td>SD ○</td>
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<thead>
<tr>
<th>Page 4/6</th>
<th>Exemple School Name</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>The principal of the school is seen as the educational leader.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>35</td>
<td>Teacher goals are in harmony with the school's goals.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Appropriate safety practices are taught to students and practiced regularly.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>37</td>
<td>Student attendance is high.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>38</td>
<td>Students are regularly informed of their academic progress.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Academic progress is reported regularly to parents.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Co-curricular activities support the instructional process.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Parents are active in the school.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Teachers are encouraged to apply knowledge gained in professional development activities.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Teachers are included in the development, implementation and evaluation of school policies and procedures.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Basic skills are constantly and consistently emphasized.</td>
<td>SA ○ A ○ N ○ D ○ SD ○</td>
<td></td>
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</tr>
</tbody>
</table>

*After completing your selections, please click "submit" to go to the next page.*

Submit: **** 68% complete
<table>
<thead>
<tr>
<th>Page</th>
<th>Example School Name</th>
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<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>The faculty and the principal communicate frequently concerning school issues.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>The school’s philosophy, goals and objectives are reviewed and revised periodically.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>The school building is safe, clean and well maintained.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Accomplishments by students, faculty and staff are recognized and celebrated.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Parents endorse and assist with the school’s instructional activities.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>50</td>
<td>Academic assessments are used to improve the instructional process.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Student needs are accommodated by a varied curriculum.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Effective communication is evident between the school and the parents.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Teachers provide feedback about professional development programs in order to improve future offerings.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Teachers are a vital part of the school’s decision-making process.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Student acquisition of the basic skills has priority over all other activities.</td>
<td>SA O A O N O D O SD O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 56   | What is your gender? Select | | | | | |
| 57   | How many years have you taught in this school? | 0 | | | | |
| 58   | How many years have you been teaching? | 0 | | | | |
| 59   | What is your nationality? | | | | | |
| 60   | Is English your native language? Select yes or no | | | | | |

After completing your selections, please click "submit".
In your opinion, what are the most important characteristics of an effective international school?

(You may choose more than one characteristic)

- Frequent Analysis of Student Progress
- Effective Professional Development
- High Academic Expectations
- Strong Parent/Community Involvement
- Positive School Environment
- Basic Skills Acquisition is Emphasized
- Safe and Orderly Atmosphere
- Teacher Involvement in Decision Making
- Clear Educational Mission and Goals
- Strong Instructional Leadership
- Learning Time is Maximized

Are there other characteristics that have not been identified on this list that you believe are important to an effective international school? If so, please describe in the box below.

You are finished with the questionnaire, please click "submit"
Thank you for your help!

Jim Doran

If you would like more information about this research on Effective International Schools, please click Research Information or contact me. jdoran@stetson.edu

Your comments and suggestions concerning this questionnaire and/or the EIS research are greatly appreciated.
REFERENCES


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