This pilot study was conducted with a sample of 25 female administrators. Fourteen of the participants are employed in Alabama public schools, while seven work in international schools in the United States, and the remaining four are administrators in international schools in Mexico. The international schools in the study are listed in the "ISS (International School Services) Directory of Overseas Schools." It examines the perceptions that female administrators have in relation to the barriers confronting them in striving for upward mobility. A Cronbach's alpha analysis was used to determine the reliability of the instrument. In addition, a principal components analysis with a varimax rotation was performed. This identified four factors, which are described as: (1) support systems barriers; (2) social barriers; (3) self-imposed barriers; and (4) cultural barriers. (Contains 4 tables and 69 references.)

(Author/SLD)
A Pilot Study for Validating a Questionnaire
on Perceptions of Barriers to Upward Mobility by Women Administrators
in International Schools in Mexico and the United States

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Abstract

This pilot study was conducted with a sample of twenty-five female administrators. Fourteen of the participants are employed in Alabama public schools, while seven work in international schools in the United States, and the remaining four are administrators in international schools in Mexico. It examines the perceptions that female administrators have in relation to the barriers confronting them in striving for upward mobility in administrative positions. Statistical analyses were a Cronbach’s alpha and a factor analysis. A Cronbach’s alpha was used to determine reliability of the instrument. In addition, a principle component factor analysis with a varimax rotation resulted in four factors, which were termed as: 1) Support Systems Barriers; 2) Social Barriers; 3) Self-Imposed Barriers; and 4) Cultural Barriers.
Rationale for Study

Historically, teaching has been one of the most popular career choices of women. Yet, a proportionately low percentage of women hold top administrative positions in education. The facts and figures reveal modest representation of women in superintendency (5%), assistant superintendency (20.6%), and principalship (27%), as demonstrated by Restine (1993). Societal perceptions of traditional and appropriate male and female roles may figure in the hiring of women as top administrators. According to Crutcher (1992), the prevailing perception has been that a superintendent should be aggressive, assertive and competitive, but these traits are seen as negative in women. Society has viewed the superintendency as a predominantly male job. Consequently, women have neither been encouraged nor expected to seek the superintendency.

Edson reported in 1981 that eager, experienced and committed women were aspiring to careers in the field of educational administration. No matter what difficulties the field of administration held for them, these women were determined to pursue their career goals. Crutcher (1992) examined the barriers which affected the upward mobility of women administrators in the State of Alabama. She concluded the most frequently reported barriers to upward mobility for all categories of female principals in her study were as follows:

1) Women believe that they will be considered unfeminine if they confront conflict assertively.
2) A major barrier to a woman's career is her need to give primary attention to her family until the youngest child is in school.
3) Women do not have a "good old girl" network.
4) Women find psychological separation and alienation from the rest of the group difficult to experience.
5) Women build self-esteem and confidence by associating with a mentor.

The unequal representation of women in administrative positions in education is not only the case in public schools in Alabama; this also holds true for administrative positions in International Schools in Mexico and the United States. Currently, of 25 International Schools in Mexico and the United States, the job titles for the top administrative positions include director, superintendent, headmaster, chancellor, president, head, and principal. Eight of the schools have males in the position of director, while no females hold this position. Four of the schools have males in the position of superintendent, while only one school has a female in this position.

There is little information regarding the barriers which affect the upward mobility of women administrators in International Schools. No documented study so far has examined the perceptions of these particular female administrators regarding barriers that affect their upward mobility. Women have the potential to contribute to educational leadership in both domestic and international schools.

The need to increase the awareness of barriers which contribute to the low incidence of women administrators is vital to achieving gender equity in administrative positions in International School boards of education. As Regan and Brooks (1995) assert, women's experience as school leaders has value that should be disseminated to men and women alike. This study provides the following information for future planning and decision-making to increase the viability of more women administrators:

1) Perceptions of barriers to women administrators in public schools in Alabama enrolled in graduate Educational Leadership programs combined with those of female administrators working in International Schools in Mexico and the United States.
2) Follow-up recommendations for future research in the area of female administrators.
A Theoretical Framework

MacGregor and Touchton (1995) discuss the identification of gender differences with respect to the language used to describe power structures in educational settings. In addition to power perspectives, findings from previous studies include gender viewpoints on empowerment, accountability, responsibility and resources (Acker-Hocevar, Touchton & Zenz, 1995). Brunner (1993), in her study of a highly successful female superintendent, concluded that females who wish to access power circuits needed to be "culturally bilingual," i.e. they needed to "speak the language of those in the male circuits of power while remaining feminine" (p. 198). Thus, certain barriers exist which prevent female administrators from having access to upward mobility.

In Eisler's (1993) partnership model, males and females are valued in an "equalitarian" social structure. Kerpan (1993) called for organizations to incorporate both feminine and masculine perspectives into their work cultures in order to achieve a more balanced perspective of power. Unless the perceptions of the barriers to upward mobility for female administrators are examined, analyzed and ultimately overcome, this partnership cannot be achieved.

Language that is both inclusive and supportive of multiple ways of knowing, being and valuing can be representative of both male and female perspectives of power and can be used to challenge the deeper cultural assumptions of domination and control of one group over another (Eisler, 1995). In order to challenge these assumptions, the barriers to upward mobility that women administrators perceive must first be addressed.

Research Questions

1. What barriers are reported by female administrators in Alabama public schools and International Schools in Mexico and the United States?

2. Can the perceived barriers be analyzed and grouped into factors or constructs that make sense?

Assumptions of the Study

The assumptions of the study are as follows:
1. The women administrators participating in the study are well qualified for their positions and would perceive similar barriers to upward mobility in any situation.
2. The barriers identified as affecting the upward mobility of administrators can be used in making recommendations for support and staff development.

Brief Review of Related Literature

The purpose of this study is to ascertain the perceptions of female administrators in Alabama public schools and in International Schools in Mexico and the United States regarding those barriers which prevent upward mobility in administrative positions. The purpose of this section is to analyze the historical involvement of women in administration, the socialization of women, the internal barriers to women, the external barriers to women, and the strategies for overcoming barriers.

For more than 20 years, the study of upward mobility of women in management has been the subject of inquiry. Several studies (Hennig & Jardin, 1977; Kanter, 1977; Frasher, Frasher & Hardwick, 1982) indicated a growing interest in securing information related to problems facing women in management positions. Other studies have yielded considerable data related to the upward mobility of women in the labor force. Much of the earlier research focused on these areas: women in business organizations, the competencies of women, and the possibilities for women to move up in their organizations. Little attention has been given to women in educational...
administration. In this section, literature is reviewed which addresses the following areas: the historical involvement of women in education, the historical involvement of women in administration, socialization of women, career patterns, internal barriers to women, external barriers to women, and overcoming barriers.

**Historical Involvement of Women in Education**

During the first century and a half of the history of America, little attention was given to the education of women, either in theory or in practice (Woody, 1966). Although teaching was identified in the 20th Century as a female profession, teachers have not always been women. Records indicate that until the late 18th Century, all teaching was done by men (Shakeshaft, 1989).

Historically, the education of women, like the education of men, has been fashioned around the tasks and roles that each performs in society. The history of the education of women has been as greatly neglected as their actual education (Sexton, 1976). The literature indicates that women have taught for much less pay than their male counterparts.

Finally, it is suggested in the research that several factors have contributed to the reason women have chosen to teach: namely, the desire to be self-supporting, the decrease in home responsibilities with the coming of the industrial age, a need to help provide for the family, and a desire to help society.

The literature indicates early records of women in administration in education. As early as 1898, Harriet A. Higbel served as a principal of a Girls' School in Worcester, Massachusetts (Hinding & Bowers, 1979). Another female administrator was Bertha C. Knemeyer who entered the University of Nevada at Reno at the age of 15. She taught school for two years and then worked as an educational administrator for nearly 30 years (Hinding & Bowers, 1979). Between 1820 and 1900 a handful of women held administrative positions. Although some of these women managed public schools, the majority founded their own schools and served as the chief administrator (Giddings, 1984; Solomon, 1985). Increasing numbers of women entered the educational field during the Civil War (Smith, 1978).

The involvement of women as teachers and administrators was at an all time high from 1865 to 1920. After 1920, there was a slow and continuous decrease in the number of females in instruction and educational management (Burstyn, 1980; Haven, Adkinson & Bagley, 1980). According to Gribskov (1980), women represented 55% of the elementary school principals in 1928. Kalvelage, Schmuck and Arends (1978) explained that in 1948 women represented 41% of the elementary principals, 22% in 1968, and in 1973 less than 20% of the elementary school principals were females.

The 1950s marked an increased number of men as elementary school principals (Schmuck, 1980a; Tyack & Strober, 1981). According to the National Center for Education Statistics (1994), the percentage of female principals in public schools increased from 21.4% in 1984-85 to 30% in 1990-91. Based on these statistics, 36.5% of public elementary principalships were held by women, while only 11.0% of the public secondary school principalships were held by females.

Although the literature has indicated that there has been an increase in the number of women holding positions as superintendents, the percentage has remained the same. Jones and Montenegro (1983) reported that fewer than one-fourth of all school administrators were women, and most of these were in elementary positions. Other research has revealed that women represented 20% of the elementary principals and fewer than 4% of the secondary principals (Fauth, 1984). According to Scimecca, the historical antecedents of present day sex-role socialization which prevailed until the 19th century can be traced to the preexistent predominance of the Christendom (1986).
Socialization of Women

The authors Saario, Jacklin, and Tittle (1973) have pointed out that socialization begins at birth and continues throughout life. At birth, the child enters society. Early studies indicated that socialization begins in the hospital with subtle and overt comments on behavior and appearance of newborns. Many of the earlier writings view women as retiring, modest, blushing beauties who avoid making eye contact in public view (Gregory, 1774).

According to Deux (1976), the socialization process begins with family and continues with the educational system, the media, the church, and the person's peer groups. The history of sex-role socialization for women can be characterized as extremely discriminatory and limiting (Scimecca, 1986). A more current writer has noted that women are not socialized to have career expectations (Clement, 1980).

Career Patterns of Women

Studies on career development theories do not fully explain the career patterns for women nor do they explain the roles of media and modernity have played in defining women. The majority of the studies were conducted on males with little consideration given to women. McDade and Drake (1982) examined the relationship between career paths of women superintendents and the problems they encountered in their move upward, their personal, educational, and professional characteristics, and the advice women superintendents offered aspirants. A content analysis of the responses by female superintendents revealed six primary career paths. The discriminant analysis revealed that personal or professional characteristics, special problems encountered, or advice offered were discriminants to career paths. It was concluded in the McDade and Drake (1982) study that educational characteristics did not prove to be discriminants in career paths.

Gaertner (1981) identified three patterns through which individuals had upward mobility in the educational system. She listed these patterns as: (a) instruction and central office administration, (b) secondary school supervision, and (c) elementary school administration. Jones and Montenegro noted two major career patterns for women: (a) in large districts, from teacher to principal to central office administration to superintendent; and (b) in smaller districts, from teacher to principal. Some women tended to sit back and wait for opportunities to present themselves (Haring-Hidore, 1987). According to Woo (1985), the women in her study said that a scarcity of opportunities for promotion had been the major obstacle in their professional paths. Factors such as resistance from colleagues, rigid hours, extensive overtime, extensive travel, the need to relocate, lack of training and development opportunities, and problems in gaining access to the informal social network within the school system were also seen as obstacles.

Dopp (1985) conducted research which studied 20 of the 21 women superintendents in Illinois. Career paths and patterns of personal development for women superintendents were the major focus of the study. In addition, she analyzed these women superintendents' leadership behavior as a means of understanding the depth and degree of problems facing them in their careers as administrators.

According to Edson (1981), aspirants were very aware of the importance of formal schooling in furthering their careers as well as the importance of administrative experiences. The norms for such aspirants were defined and established: they included such things as proper dress, appropriate negotiation skills, correct roles, and proper control of anxiety and stress. Women must not only work diligently on the appropriate tasks, but must also learn to recognize the sources of power and how to befriend those in positions of power (Smith, 1985).

Paddock (1978) suggested that the career ladder of women administrators is abbreviated
because of late entry into administration. Stockard (1984) reported that the majority of superintendents began as teachers and obtained their positions through a direct path from teaching or counseling to the line positions of principal, assistant superintendent, or through specialized posts such as those in special education, media, research, or federal programs. In moving up through the ranks of the educational organization, female school administrators must struggle with internal conflict.

**Internal Barriers to Women**

Internal conflict often is brought to the workplace and in many instances creates a barrier that is very hard for women administrators to penetrate. American women have reaped the benefits of a better self-image and higher career expectations (Woo, 1985). Yet, for all of their positive effects, these messages have created psychological and emotional turmoil for many American women.

Earlier studies reported lower levels of aspiration among females than males. According to Fauth (1984), recent studies have shown significantly higher levels of aspiration. Horner (cited in Taylor, 1973) reported that one's aspiration level was found to be closely related to self-esteem in the fear of success phenomenon. According to Howe (1975), women show an unwillingness to struggle, a reluctance to fight, and an avoidance of conflict. Antonucci (1980), Benton (1980), and Clement, Dibella and Eckstrom (1978) placed little significance on internal barriers which often have been used to explain the lack of women in administrative positions.

According to Smith (1985), a redefinition or new frame of reference is the basis for knowing one's worth and having positive self regard. Even though women may have the necessary foundation for understanding their socialization process and may possess positive self concepts, the standard used to measure them is the white male. It is only through the knowledge of one's group experience that the foundation for the struggle to understand oneself can be nurtured.

In Woo's (1985) study, she concluded that many women found psychological separation and alienation from the rest of the group too much to bear. Woo also drew the conclusion that what American women need to understand now is that they can be career women, mother sex symbols, fashion plates, and community leaders but not all at the same time without personal stress. Other writers (Edson, 1981; Moore, 1984; Van Meir, 1975) recognized external barriers as more influential than internal barriers.

**External Barriers to Women**

The underrepresentation of women in educational administrative positions has received the attention of numerous writers. Clement (1980), Moore (1984), and Lyman and Speizer (1980) used the three Estler models as a means of identifying those factors which caused the low representation of women in administration. These models were: (a) Woman's Place Model, (b) the Discrimination Model, and (c) the Meritocracy Model. In the Woman's Place Model, it is positioned that there are different socialization patterns for boys and girls which society and its institutions reinforce. Hennig and Jardin (1977) hypothesized that the proper training for the world of work acquired through socialization could not be obtained in any other way. The Discrimination Model implies that preferential hiring and promotion of males accounts for the high proportion of male administrators in the school systems. Clement (cited in Biklen Brannigan, 1980) noted that the role mentors and networks play in job access and career advancement demonstrated a view based on male domination and loyalties. Earlier writers, such as Gross and Trask (1976), Van Meir (1975), and Clement et al (1978), indicated that women held fewer doctoral degrees than men, lacked career tenure, or that women were less likely to have had management training. This situation is attributed to sex-role discrimination.

Sex-role discrimination, a commonly found external barrier, in the contemporary United
Female Administrators

States, though less visible than in Colonial America, is no less real (Scimecca, 1986). It was pointed out by Scimecca that sex role expectations are culturally induced. The literature on women in administration substantiates the widespread assumption that sex bias has been a major factor in the small number of women administrators (Estler, 1975; Frasher & Frasher, 1979). According to Frasher et al (1982), few women indicated that sex bias had impeded the progress of their careers. An equal number wrote that they felt their feminine characteristics had given them special advantages; that is, they credited a degree of their success to their ability to work well with all kinds of people, to compromise, and to be both sympathetic and emphatic.

If a woman has children she may be queried about her childcare arrangements. If she has no children, she may be asked whether she plans to have any. If she is single, she may be asked if she has plans to marry. If she is married, she may be questioned concerning her husband's job mobility or her ability to commute to her job (Kane, 1976).

In the 1840s, 50s, and 60s, the theorists argue that women were better suited than men (Mann, 1841). They claimed that teaching unlocked a woman's instinct for mothering and prepared her for marriage. When a woman took a teaching job, in most states well into the 20th century, she was legally required to redesign when she married (Hoffman, 1981). Thus, family responsibilities commonly overrode professional commitments.

According to Shakeshaft (1981), the home and family provide obstacles for women in administration in two ways. Not only must the woman effectively juggle all of her tasks; she must also contend with the bulk of male school boards, presidents, and superintendents who erroneously believe that she is unable to manage the balancing act.

Female administrators who are married face conflict on two fronts -- the job and the home (Erickson, 1985). In McDade and Drake's (1982) study, it was revealed that women only allowed their careers to be interrupted because of family responsibilities.

The husband who tries to control or block the drive of an ambitious female administrator will generate conflict. According to Dopp (1985), a majority of the married superintendents felt that strong marriages had positively affected their careers. Further, they stated that their spouses and family members were their greatest supporters. It is support of this type that enables women to overcome the barriers which they often encounter.

Overcoming Barriers

Traditional social stereotypes of females as nurturers and supporters have limited their vocational opportunities. The availability of models is a major factor in women's career choices. The most visible and, frequently, the most significant adult models available to girls, other than their parents, are teachers (Greer & Finley, 1985). Saucedo (1978) pointed out that her professional role models were the liberal nuns who told the world of the intellectual abilities of women and their possible roles in society.

The majority of the superintendents in Dopp's (1985) study felt that mentors were helpful; however, mentors were not absolutely essential in reaching the superintendency. The mentors provided opportunities for personal and professional growth beyond the superintendency. The mentors ranged from fellow administrators, to friends, to university professors.

Research assesses the importance of mentoring for women administrators in higher education (Bolton, 1980; Kraft, 1984; Merkin 1977; Moore, 1983; Phillips-Jones, 1982). The research also indicates that institutional barriers can be as powerful as women's internal barriers. Furthermore, the research concludes that women need to consciously support and help one another.

Networking has entered the lexicon to mean making connections among peers (Lipnack & Stamps, 1987). Panerazio and Gray (1982) suggested that networking for professional women should be in the form of the collegial model because it is based on affiliation rather than on competitiveness or individualism. It incorporates those very positive characteristics which society
has designated as feminine, such as nurturance, sharing and helping.
In Maienza's 1986 study which examined access to the superintendency of 10 men and 10 women, there was particular emphasis on predictors of access to women. The data revealed that women did not receive the sponsorship of professional networks, but relied on visibility across school districts. With respect to the concept of sponsorships in careers, the data indicated that much more than family support was involved in access to the superintendency.

In Edson's (1981) research, the data indicated that the women's background and preparation for administration included the following: (a) a master's degree; (b) certification to teach; (c) nine years of teaching experience; (d) administrative certification; (e) a principal's endorsement; (f) 3 to 8 years of administrative experience as a chairperson, a coordinator, or a specialist. In addition, the women in her study were employed as teachers, housekeepers, and students in courses leading to certification in administration. According to Paddock (1981), data showed that there was a significant difference between women administrators' and men administrators' academic training for administration.

The literature in administration substantiates the widespread assumption that sex bias has been a major factor in the small number of women administrators (Estler, 1975; Frasher & Frasher, 1980). Since the early 1960s, a number of laws have been passed to terminate the negative treatment of women in employment. These four laws affect women administrators in the United States: 9a) The Equal Pay Act of 1963, (b) Title VII of the 1964 Civil Rights Act, (c) Executive Order 11246, and (d) Title IX of the Education Amendments of 1972 (Smith et al, 1987). However, since International Schools are private, they are not required to adhere to the same regulations and requirements to which public schools in the United States are subject. In addition, International Schools are rarely included in research studies of any kind.

Methodology

In light of the fact that International Schools are rarely included in research studies, this pilot study was designed to examine an area that has been left largely untouched. The purpose of this pilot study was to investigate the perceptions of barriers to upward mobility that female administrators in International Schools in Mexico, the United States, and Alabama have.

Subjects

The following criteria for selecting women administrators to participate in this pilot study was established as follows:

a) The primary title of the selected women administrators was principal, director, administrator, superintendent, executive director, headmistress, director general, acting director, interim director, head, coordinator, co-director, deputy director, directress, directrice, rector, dean, or assistant to any of the abovementioned positions.


c) All (53) members of the population of women administrators were mailed questionnaires. The names of the women administrators were secured from The ISS Directory of Overseas Schools, 1995-96 Edition.

d) In order to obtain a minimum sample size of 25, fourteen additional questionnaires were completed by female administrators working in Alabama public schools who were also engaged in graduate studies at The University of Alabama.
Table 1

Demographics

<table>
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<th>International Schools</th>
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Materials

The Likert method of summated ratings, as described in the 6th Edition of Research in Education by John W. Best and James V. Kahn (1989), was chosen to measure attitudes and beliefs of the subjects on a questionnaire. The Likert method was used as a response mode to measure the values each respondent assigned to individual barrier statements listed in the instrument. The items of the questionnaire were developed by selecting those barriers which had the highest degree of occurrence in the literature.

The questionnaire was designed to determine the perceptions of female administrators regarding the barriers affecting the upward mobility of women administrators in International Schools in Mexico and the United States and in public schools in Alabama. Table 2 illustrates a Likert-type response with a sample of items from the survey.

Table 2

Excerpt from the Questionnaire Concerning Upward Mobility in American and International Schools

Provide one of the following responses as an indication of your agreement/disagreement with each statement regarding barriers which affect women in administration:

SA—STRONGLY DISAGREE (1)
A—DISAGREE (2)
N—NEUTRAL (3)
D—DISAGREE (4)
SD—STRONGLY DISAGREE (5)

36. Belief systems create barriers for career advancement for women.

37. The most difficult aspect of being a female administrator is having to work in isolation.

38. Faculty members treat male administrators more professionally than female administrators.

39. Among married couples, the husband’s career usually takes priority over the wife’s career.

40. If a woman advances to a position that is more prestigious than her husband’s job, their relationship will be affected.
Data Collection

After the final form of the questionnaire was developed, copies were duplicated. A cover letter was prepared to accompany the questionnaire, which was mailed to each member of the population. An identification code was assigned to each instrument and the cover letter, questionnaire, and self-addressed return envelope were mailed to the 53 members of the population. The questionnaires were mailed to two female administrators in an international school in British Columbia, thirty-six female administrators working in international schools in Mexico, and fifteen female administrators working in international schools in the United States. Additionally reminder postcards were mailed to those who had not responded within one month. In order to obtain a minimum sample size of 25, additional questionnaires were completed by female administrators working in Alabama public schools who were also enrolled in graduate courses at The University of Alabama.

Data Analysis

Table 3

Item to Total Correlations

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A Cronbach Alpha for the total instrument was conducted in order to test for reliability of the 40 items on the questionnaire taken as a whole. The Cronbach coefficient alpha for raw score variables for the total instrument was 0.91.

An exploratory principle component factor analysis was done with a varimax rotation, that resulted in a four factor solution. The final communality estimate total was 24.34, accounting for 60.85% of the variance in the instrument. The factors were examined for groupings. The following factors were determined: 1) Support Systems Barriers; 2) Social Barriers; 3) Self-Imposed Barriers; and 4) Cultural Barriers. Factor one, Support Systems Barriers, explains 29.5% of the variability. The second factor, Social Barriers, accounts for 11.3% of the variability. Factor 3, Self-Imposed Barriers, accounts for 11.01% of the variability. The fourth factor, Cultural Barriers, accounts for 9% of the variability.

Factor 1, Support Systems Barriers, was comprised of the following items: 1) Women have to resist oppression; 2) The key to resisting oppression is a strong self-concept; 3) A primary barrier to a woman's career is her need to give primary attention to her family until the youngest child is in school; 4) Women face resistance to their upward mobility from people in the community; 5) Women lack the support of women; 6) Beliefs that male administrators best handle certain kinds of positions are restrictive; 7) Women frequently do not receive salary, title, and status to match responsibilities; 8) Mentors can help women's careers by giving their protegees career direction, support, career aspiration and by assisting with career change; 9) Women build self-esteem and confidence by associating with the mentor; 10) Male co-workers extend a lack of professionalism to women; 11) Women experience discrimination in their professions; 12) The content, process, and organization of formal education tends to reinforce sex role stereotyping; 13) The greatest barrier for women is role prejudice; 14) Women experience external barriers to promotion despite declaration of equal opportunity employment; 15) School counselors fail to identify future positions in administration as desirable to females; 16) The parents of females encourage them to pursue administrative careers in education; 17) Current educational hiring practices present obstacles to upward mobility for women; 18) Most communities prefer male administrators to female administrators in schools; 19) Belief systems create barriers for career advancement for women; 20) The most difficult aspect of being a female administrator is having to work in isolation; and 21) Faculty members treat male administrators more professionally than female administrators.

Factor 2, Social Barriers, included the following items: 1) Women have not been conditioned to be ambitious; 2) Women believe that they will be considered unfeminine if they assertively confront conflict; 3) Women often spend the early part of their marriages promoting their husbands' careers; 4) Women have the educational preparation but lack the necessary experience to
Female Administrators

hold administrative positions; and 5) American and International Overseas Schools actively recruit female administrators.

Factor 3, Self-Imposed Barriers, contained the following items: 1) Women's greatest enemies are themselves; 2) Women bring psychological turmoil to the job; 3) Women are affected by their lack of geographic mobility; 4) Married couples in education are often in competition for the same jobs; 5) Women aspire to educate themselves for top educational administration positions; 6) Women find psychological separation and alienation from the rest of the group too much to bear; 7) Women are encouraged to compete with men; 8) Women experience sex discrimination when queried about their childcare arrangements or their plans to have children; 9) If a woman advances to a position that is more prestigious than her husband's job, their relationship will be adversely affected.

Factor 4, Cultural Barriers, was comprised of the following items: 1) Women have a "good old girl" network; 2) The scarcity of opportunities for promotion has been the major obstacle in the professional path of women; 3) Women are not usually willing to compete for top administrative positions; 4) Women should be allowed to progress by cooperation more than competition; and 5) Among married couples, the husband's career usually takes priority over the wife's career.

A Cronbach's alpha was conducted for each factor to measure reliability. Factor 1, Support Systems Barriers, had a Cronbach alpha reliability coefficient of 0.92 for raw variables. Factor 2, Social Barriers, had a Cronbach alpha reliability coefficient of 0.83 for raw variables. Factor 3, Self-Imposed Barriers, had a Cronbach alpha reliability coefficient of 0.49. Factor 4, Cultural Barriers, had a Cronbach alpha reliability coefficient of 0.503945 for raw variables.

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Female Administrators

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Conclusion

This pilot study was conducted in order to determine whether or not the questionnaire is reliable and valid. As the Cronbach alpha reliability coefficient for the total instrument was 0.91, this evidence strongly supports the reliability of the instrument as a whole. Factor analysis and item-to-total correlations are evidence of construct validity. Both reliability and validity provide evidence of strong psychometric properties (Gregory, 1996).

The simple structure of factor analysis clearly loaded the items onto four factors: 1) Support Systems Barriers; 2) Social Barriers; 3) Self-Imposed Barriers; and 4) Cultural Barriers. The first two factors, Support Systems and Social Barriers, had Cronbach coefficient alphas of 0.92 and 0.83 respectively. Both of these convey strong reliability for these factors. Factors 3 and 4, Self-Imposed Barriers and Cultural Barriers, had Cronbach coefficient alphas of less than 0.70, which is not as strong as the other factors, but is reasonable for small scales. Perhaps with a larger sample size in a future implementation of the instrument, these constructs might prove to be more reliable.

Whereas the literature has closely examined both “Support Systems” and “Social Barriers,” and given support to the idea that these types of barriers actually exist, this is not true for Self-Imposed and Cultural Barriers. These types of barriers are more nebulous, and difficult to examine. This might explain the lower reliability scores for these factors.

That the responses from a small sample of female administrators working in both public schools in Alabama and International Schools in Mexico and the United States were analyzed and grouped into factors would be consistent with a model showing that women face similar barriers to upward mobility no matter what type of school they are employed in or where the school is located.

Dramatic improvements in education will not occur in education unless greater gender equity is promoted both domestically and internationally, as well as in the public and private sectors. The first step in the change process is recognizing that a problem exists. Support Systems, Social, Self-Imposed, and Cultural Barriers exist for women administrators in terms of upward mobility. In order to overcome these barriers, further study needs to take place. In this way, the barriers can be understood and finally removed, once and for all.

The results of this pilot study have the potential to provide the educational administrator community with an instrument that can help female administrators through some of the barriers that inhibit administrative performance and upward mobility. Professional demographic surveys reveal
that women proportionately represent a low percentage of administrative positions in education. This new research may be of value in the sense that it has the potential to ultimately result in an increase in the number of women who hold administrative positions.
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