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PRINCIPALS' PERCEPTIONS OF NON-TRADITIONAL GENDER VOCATIONAL TEACHERS

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Running Head: Non-Traditional Gender Vocational Teachers

Abstract

The primary purpose of this study was to determine the attitudes of secondary school principals toward hiring vocational teachers for positions where the teacher is from the minority gender (e.g. females as vocational agriculture teachers and males as home economics teachers). A simple random sample of high school principals in Louisiana was surveyed by mailed questionnaire. Ten items, incorporated into an existing instrument, were used to assess the

principals' perceptions. Overall the findings revealed that the principals were ambivalent toward minority gender teachers. In addition, the principals were found to perceive nontraditional vocational teaching occupations more positively for women than for men. School size and population density were both found to be positively related to the administrators' perceptions such that principals in larger schools and in more densely populated school communities tended to have more positive perceptions toward nontraditional gender vocational teaching occupations for both men and women.

PRINCIPALS' PERCEPTIONS OF NONTRADITIONAL GENDER VOCATIONAL TEACHERS

Gender equity is a broad social issue that can be profoundly influenced in the field of education. The goal of education is to provide opportunities to gain knowledge, skills and attitudes that prepare young people for the adult world. To accomplish this purpose, schools should follow goals and objectives which communicate a philosophy of equality for all. The climate of equitable learning can help all students become aware of the careers available to them and help prepare them for changing roles at home and in the work place. Biased opportunities and differential expectations resulting from sex bias and role stereotyping can cause students to lose the freedom of career choice and limit their ability to learn and to succeed. Furthermore, sex bias and stereotyping may negatively affect a state's economy and quality of life by not utilizing the skills and talents of all students most effectively (Wisconsin Department of Public Instruction, 1990).

The elimination of sex bias and sex stereotyping has been a national priority in vocational education for many years. Policy makers and researchers continue to maintain the importance of encouraging nontraditional vocational choices when seeking to raise educational standards and occupational outcomes. The U.S. Department of Labor, Women's Bureau (1991) has defined nontraditional jobs as occupations in which women constitute 25 percent or less of the employees in a given occupation. Numerous benefits are associated with employment in nontraditional positions including higher wages than traditional occupations, flexible work schedules, increased job security and more personal fulfillment (U.S. Department of Labor, Women's Bureau). However, traditional attitudes about "men's" and "women's" jobs often bring individuals who make nontraditional vocational choices into a hostile working environment. Numerous activities have been initiated in attempts to change this situation by working toward attracting more individuals into nontraditional occupations.

Since traditional vocational education enrollments have been highly segregated by gender, both federal and state laws have been aimed at nondiscrimination by gender. These laws have set forth standards and procedures to overcome bias on the basis of gender and have established programs designed to achieve educational equity for both females and males. Dobry (1986) commented that the purpose of these legislative mandates and subsequent monitoring of educational programs was generally to overcome overt sex bias and sex stereotyping. However, even though overt sex bias and stereotyping is less prevalent than 20 years ago, inequities still remain (Wisconsin Department of Public Instruction, 1990). According to the Coyle-Williams and Maddy-Bernstein (1992) educational barriers continue to exist despite legislation prohibiting sex discrimination. Muraskin (1989) reported that the results of years of efforts regarding gender equity with too little progress have even lead to cynicism and ambivalence toward these issues. The persistence of these negative attitudes, wherever they exist, has certainly hindered the prospective student from considering nontraditional educational and career options. The continued societal barriers of sex discrimination, despite years of legislation (Wirt, Muraskin & Goodwin, 1989; Coyle-Williams & Maddy-Bernstein), emphasizes the crucial need for further attention regarding sex equity issues. Until the attitudes of vocational educators and other educational authorities reflect a willingness to accept any otherwise-qualified person, regardless of gender, in any program of vocational education, there is unquestionably a need for change and room for improvement.

A study of sources affecting sex equity of vocational teachers is critical to provide means of change that will lead to more productive programs. The local school principal typically has the greatest impact on school level employment decisions because the school principal is the chief executive officer of the basic unit in the school system. According to Linn (1988), the administrators are the key personnel to actually achieve and

maintain sex equity in schools. They can best recognize appropriate strategies to overcome barriers to implementation. Therefore, principals' attitudes would logically be a key factor in elimination of sex bias in vocational teaching areas.

Purpose and Objectives

The purpose of this study was to determine the attitudes of local secondary school principals toward hiring vocational teachers for positions where the teacher is from the minority gender (e.g.--females as vocational agriculture teachers and males as home economics teachers).

The following specific objectives were formulated to guide the researchers:

- 1. To describe secondary schools in Louisiana regarding vocational programs offered and selected other characteristics.
- 2. To determine the attitudes of high school principals toward hiring vocational teachers into nontraditional gender teaching roles.
- 3. To compare principals' attitudes toward nontraditional occupations for men with their attitudes toward nontraditional occupations for women.
- 4. To determine if relationships exist between principals' attitudes toward hiring vocational teachers into nontraditional teaching roles and selected school characteristics.

Review of Literature

A myriad of studies have been conducted since the early 1970s regarding gender equity in the educational setting. Common themes over the last two decades of research include the significant impact of educational barriers in overcoming sex biases and the continued need for consideration and attention regarding sex equity issues despite years of educational research and legislative efforts.

Guttentag and Bray (1976) commented that sex role stereotyping has been a subtly accepted fact for years in American society. The authors further suggested that even though gender identity might be made early and be irreversible, the content of sex roles and the child's definitions of masculinity and femininity were influenced by external feedback. Furthermore, school intervention information regarding children's sex-role attitudes could support new possibilities and opportunities for crossing sex-stereotypical lines, and expanding job and human opportunities.

Pottker and Fishel (1977) criticized sex bias of American schools as follows:

The irony is that children are told that school achievement will bring future life success, which is not true for girls. Having developed the characteristics that are necessary for successful careers in school, once out of school girls are limited by society's bias from attaining positions for which they are qualified. But most girls never realize to what extent they are restricted and discriminated against because the school has done such an effective job in cooling them out. The schools, acting as agents for the existing social order, contribute to the maintenance of a society where sex rather than ability determines the limits of a person's accomplishments. The perpetration of this system in American schools is clearly not only unjust to girls and women, but it also perpetuates a great loss of American talent (p.19).

While attitudes toward sex equity issues in educational settings are not as overt in the 1990s, inequities still exist. Henry (1994) contended that teachers as well as students continue to function in a gender-biased environment. Olivares (1994) reported that fundamental elements of the school environment continue to reinforce gender inequity and that teachers are typically unaware of their own gender bias. Quon (1993) examined occupational education student enrollments and personnel at the secondary and postsecondary

levels from 1984 to 1991. Findings revealed that the percentage of female enrollments in nontraditional occupational areas considerably exceeded the percentage of female employees in those areas (Quon).

Proposals and recommendations for greater gender equity in educational settings have been extensively studied and evaluated. Foxley (1982) suggested, to actually overcome sex bias and sex stereotyping, women must be appointed in areas and specialties where they are not now represented. Appointments for more women to be department heads and deans need to be encouraged. Self-examination of sexist attitudes and behaviors is essential, and evaluation of curricula for sexist content is continually needed.

Darling (1992) indicated that administrative positions within the educational system tend to be held by men and further recommended that women be encouraged to pursue higher positions in academic settings. Pfalzer (1990) reported that the under-representation of women in administration is not due to a lack of ambition for these positions. Instead, variables which suggested explanations for the under-representation included males having advanced degrees, males having more years of experience and males having greater administrative course work (Pfalzer, 1990).

Vocational education enrollment patterns continue to be highly segregated despite continued focus on gender related issues. Wirt, et. al. (1989) indicated that in spite of 20 years of endeavors to promote gender equity in vocational programs, women remain under-represented in vocational programs leading to higher paying jobs. Vetter and Hickey (1985) examined the female enrollment in occupationally-specific vocational programs. Examination of data from 1971 through 1981 indicated that women's enrollment patterns had changed since the passage of important federal legislation. However, Sadker and Sadker (1985) found that male students continue to have more opportunity to interact in classrooms at all grade levels and in all subject areas.

Culver and Burge (1985) examined differences in the self-concept of students grouped according to their sex and the sex-intensiveness of their vocational programs. The study found that higher self-concepts were necessary for students to prepare for nontraditional careers. Fear-Fenn (1986) reported that most people had a different set of expectations, behavior standards, rewards, and punishments for females and males.

Bitters (1988) reported that there were still many issues that sex equity in vocational education has not adequately addressed. In addition, sex equity must increasingly be aimed at students, not just toward educators. Cano (1990) was concerned with male vocational agriculture teachers' attitude and perceptions toward female teachers of agriculture. The author found that perceptions of sexual discrimination, sexual bias, and sexual harassment were evident.

Dohner, R. E., Loyd, C. M., and Stenberg, L. (1990) revealed that as male sex-role attitudes change, the opportunity for men's participation in the field of home economics had been encouraged. Men in the field of home economics should serve as role models in recruiting and mentoring other men.

Methodology

Population and Sample

The target population in this study was defined as all principals in Louisiana public secondary schools. The target population was identified by the Louisiana School Directory published by the Louisiana Department of Education (1991).

A simple random sampling procedure was used to draw subjects for inclusion in the study. The sample size needed to assure representativeness was determined using Cochran's sample size determination formula (1977). Given a population of 339 public secondary principals in Louisiana, the researchers determined that a sample of 116 would be necessary to achieve the desired representativeness and maintain the established degree of precision. A simple random sample of 125 was drawn for inclusion in the study.

Accurate measurement of sex bias and sex stereotyping with an instrument, which is perceived by members of the research sample to be directed to this matter, would be unlikely. If one is to accurately measure sex bias and sex stereotyping, the instrument must be capable of measuring this attitude without being threatening or embarrassing to the individuals being surveyed. Due to this fact, the questionnaire was developed in an attempt to mask the main item of interest-sex bias and sex stereotyping. In addition, an extensive literature review did not reveal an existing instrument to accomplish this purpose. The design of the instrument was accomplished by taking an existing instrument which was designed to measure attitudes held by local school administrators (Miller, 1981) toward vocational education and adding items which would permit the researchers to assess the attitude toward hiring nontraditional teachers.

Twenty-eight statements were used and the responses indicated on a five-point Likert-type scale with 1 being strongly disagree and 5 being strongly agree. Of the 28 items, 10 items were related to identifying principals' attitudes toward hiring nontraditional gender vocational teachers. The sex equity items were dispersed among the distractors so as to render them as non-reactive and non-threatening as possible.

Content validity of the instrument was established through a review by a panel of 12 experts consisting of faculty members from the School of Vocational Education, Louisiana State University; personnel of the Louisiana State Department of Education; and selected other professionals in Vocational Education from other universities. The researcher-designed instrument also included demographic variables, which were selected on the basis of previous research findings. These variables included: Geographic area of school (rural or urban), years of experience as a school administrator, years of experience as a classroom teacher, highest educational degree completed, vocational programs offered in the school, and the school size.

Reliability of the 10 sex equity items which were measured on the 1 to 5 Likert-type scale was estimated using the Cronbach's alpha internal consistency coefficient. This measure was chosen because it is appropriate for use with Likert-type scales and because it has the advantage of being measurable from a single administration of the instrument. This is especially important in this study where the primary variable of interest is potentially highly reactive and threatening. The calculated coefficient in this study was a = .79.

Data Collection

Data were collected by mailed questionnaire. Each member of the sample received a cover letter and a copy of the instrument. The first questionnaires were mailed to the 125 principals, accompanied by a self-addressed, stamped envelope and cover letter. Follow-up procedures were utilized to improve the response rate. Within four weeks after the first mailing, 84 (67%) principals had responded. A second mailing, which asked for principals' assistance by completing and returning their questionnaires, was sent to all non-respondents. After the second mailing, another 24 (19%) responses were obtained. A third set of questionnaires was sent to the remaining non-respondents. After the third mailing, the researchers received seven (5.6%) more responses which made a total of 115 or a 92% useable return rate.

Findings

Objective one was to describe secondary schools in Louisiana regarding vocational programs offered and selected other characteristics. Respondents were asked to indicate vocational programs offered at the schools they administered. The majority of schools were reported to offer business education (107 or 93%), vocational home economics (98 or 85%), and vocational agriculture (92 or 80%). Fifty-four schools (47%) offered technical & industrial education, and eight schools (7.0%) included other vocational education programs. The eight principals who reported other vocational programs did not specify what those programs were.

To further summarize the data and to facilitate subsequent data analysis, the schools were grouped on the basis of how many vocational programs were reported as being offered. The majority of schools (67 or 58.3%) offered three vocational education programs. Nineteen schools (16.5%) each offered four or two vocational programs. Only two schools were reported to offer five or more vocational programs, and one school offered only one vocational program. Three categories -- three, four, and two vocational programs offered -- encompassed more than 95% of the respondents in the study.

To measure the size of schools administered by principals in the study, respondents were asked to indicate the state athletic school size classification for their school. The number of schools from each classification are presented in Table 1 (Louisiana High School Coaches Association, 1990) Schools were distributed across classifications ranging from class C (the smallest schools) to class AAAAA (the largest schools). The range of percentages in these categories was from a low of 1.8% in the AAAAA category to a high of 32.4% in the B/A category.

Table 1. School Size Classification Reported by Responding Principals

School	Size	Frequency	Percent
C	(92 and fewer students)	17	14.9
B/A	(93 to 224 students)	37	32.4
AA	(225 to 411 students)	22	19.3
AAA	(410 to 695 students)	15	13.2
AAAA	(696 to 1128 students)	21	18.4
AAAAA	(over 1129 students)	2	1.8
Missing		1	-
Total		114	100.0

Respondents were asked to indicate the population density of the geographic area served by the school under their administration. These findings are presented in Table 2. The majority of secondary principals (72 or 62.6%) reported that their school served rural-small towns. The next largest group of schools served students in large cities (18 or 15.7%). Only four principals (3.5%) indicated that they served small cities.

Table 2. Population Density of Area Served by Schools

Geographic location	Frequency	Percent	
Rural-small towns	72	62.6	
Large cities	18	15.7	
Large towns	13	11.3	
Mid-sized cities	8	7.0	
Small cities	4	3.5	
Total	115	100.0	

Note:Rural-small towns = less than 2,500 population; Large towns = 2,501 to 10,000; Small cities = 10,001 to 25,000; Mid-sized cities = 25,001 to 50,000; Large cities = over 50,000.

Regarding the number of years of administrative experience, the largest group of respondents (45 or 39.1%) reported that they had less than five years of experience as a principal. Fifty-one principals (44.4%) were approximately evenly divided between the categories of 6 to 10 years and 11 to 15 years. Only 19 principals (16.5%) reported more than 15 years of experience (see Table 3).

Table 3. Years of Administrative Experience Reported by Responding Principals

Number of years	Frequency	Percent
Less than 5 years	45	39.1
6 to 10 years	24	20.9
11 to 15 years	27	23.5
16 to 20 years	10	8.7
Over 20 years	9	7.8
Total	115	100.0

When asked about their highest level of education completed, the majority of secondary principals (82 or 71.3%) reported the educational category of masters degree +30 hours. Sixteen (13.9%) had completed masters degrees, and 12 (10.4%) had completed educational specialist programs. Only five (4.3%) reported having completed doctorates.

When asked about number of years of classroom teaching experience, most of the principals (82 or 71.3%) reported between 6 and 15 years of teaching experience (see Table 4). This number was evenly distributed between the categories of 6 to 10 years and 11 to 15 years. Only 2 (1.7%) indicated less than 5 years teaching experience, and 11 (9.6%) reported over 20 years teaching experience.

Table 4. Years of Teaching Experience Reported by Responding Principals

Frequency	Percent	
2	1.7	
41	35.7	
41	35.7	
20	17.4	
11	9.6	
115	100.0	
	2 41 41 20 11	

The second objective was to determine the attitudes of high school principals in Louisiana toward hiring vocational teachers into nontraditional gender teaching roles. Ten scale items in the instrument were designed to determine the principals' attitudes toward hiring nontraditional teachers in vocational education. Principals were asked to respond to selected statements on a five-point Likert-type scale having numerical values as follows: 1-Strongly Disagree; 2-Disagree; 3-Undecided; 4-Agree; and 5-Strongly Agree. Mean responses were tabulated and used to indicate the attitudes held by local school principals, based on the following

interpretive scale established by the researchers: 1.5 or less = Strongly Disagree; 1.51 to 2.5 = Disagree; 2.51 to 3.49 = Undecided; 3.50 to 4.49 = Agree; and 4.50 or more = Strongly Agree.

Examination of data in Table 5 reveals that principals agreed with the statement, "I would be inclined to employ a female agriculture teacher if she was qualified" (mean = 3.73). The respondents disagreed with 2 statements. These items were: "Female vocational teachers have more discipline problems than do male vocational teachers" (mean = 2.36) and "A female agriculture teacher might convey a negative image of the agriculture program to the community" (mean = 2.05). However, mean responses on 7 of the 10 items were in the undecided category.

Table 5. Attitudes of Local Principals Toward Hiring Vocational Teachers into Nontraditional Gender Teaching Roles

Item	Mean	SD
I would be inclined to employ a female agriculture teacher if she was qualified.		0.98
Females should be encouraged to enter nontraditional teaching areas, such as agriculture.	3.46	0.88
I would be inclined to employ a male home economics teacher if he was qualified.	3.46	0.98
Nontraditional vocational teachers (female agriculture teachers, male home economics teachers,		
etc.) are accepted by their respective peers as readily as traditional teachers in that field.	3.10	0.84
Parents may have some concern about their daughters enrolling in a home economics class taught by a male.	3.03	1.00
Overnight field trips would present a problem to		
vocational teachers who were not the same gender as the majority of their students.	2.78	1.14
High school girls would be less inclined to enroll		
in home economics if it were taught by a male.	2.75	0.95
High school boys would be less inclined to enroll		
in technical and industrial education if it were taught by a female.	2.59	0.93
Female vocational teachers have more discipline problems than do male vocational teachers.	2.36	0.92
A female agriculture teacher might convey a negative		

image of the agriculture program to the	2.05	1.03
community.		

Note: 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree.

Objective three was to compare principals' attitudes toward nontraditional occupations for men with their attitudes toward nontraditional occupations for women. Of the 10 scaled items in the instrument which were designed to measure principals' attitudes toward hiring a nontraditional vocational teacher, three items dealt specifically with males in nontraditional roles and five items dealt specifically with females in nontraditional roles.

The three items for men were as follows:

- 1. Parents may have some concern about their daughters enrolling in a home economics class taught by a male. (mean = 3.03)
- 2. High school girls would be less inclined to enroll in home economics if it were taught by a male. (mean = 2.75)
- 3. I would be inclined to employ a male home economics teacher if he was qualified. (mean = 3.46)

The five items for women were as follows:

- 1. I would be inclined to employ a female agriculture teacher if she was qualified. (mean = 3.73)
- 2. Females should be encouraged to enter non-traditional teaching areas, such as agriculture. (mean = 3.46)
- 3. High school boys would be less inclined to enroll in technical and industrial education if it were taught by a female. (mean = 2.59)
- 4. Female vocational teachers have more discipline problems than do male vocational teachers. (mean = 2.36)
- 5. A female agriculture teacher might convey a negative image of the agriculture program to the community. (mean = 2.05)

In addition, six items such as, "Female vocational teachers have more discipline problems than do male vocational teachers," were asked on a reversed scale when compared with the other items such as, "I would be inclined to employ a female agriculture teacher if she was qualified." In other words, to agree with some items was the more positive response, and to disagree with other items was interpreted as the more positive attitude toward sex equity. Therefore, the direction of all items was made the same by reversing the scale on the negatively worded items. Then an overall mean for males and an overall mean for females was computed on the items identified as related to males and females respectively. A t-test was then used to compare the attitudes of principals toward hiring males in nontraditional roles with the attitudes toward hiring females in nontraditional roles. Results of the t-test indicated that the female mean response (mean = 3.64, SD = 0.57) was greater than the male mean response (mean = 3.22, SD = 0.75) (t(113) = 7.64, p < .001). This difference indicated that principals' attitudes toward nontraditional vocational teaching roles for women was more positive than those for men.

The fourth objective was to determine if relationships exist between principals' attitudes toward

hiring vocational teachers into nontraditional teaching roles and selected school characteristics. Kendall's Tau correlation coefficients were used to measure the relationships. The interpretation of correlation coefficients was based on the set of descriptors proposed by Davis (1971), which are as follows: 0.01 to 0.09--negligible association; 0.10 to 0.29-low association; 0.30 to .49-moderate association; 0.50 to 0.69--substantial association;0.70 or higher--very strong association. Since principals' attitudes toward nontraditional vocational teaching roles for men was different from principals' attitudes toward nontraditional vocational teaching roles for women, the correlation between principals' attitudes toward hiring vocational teachers into nontraditional teaching roles and selected demographic characteristics was calculated for males and females separately.

The correlation between population density of the geographic location and principals' attitude toward sex equity for women was found to be r=0.21 (p<0.001), indicating a significant low positive association (See Table 6). Regarding the correlation between school size and principals' attitudes toward sex equity for women, a coefficient of r=0.24 (p<0.001) was obtained, indicating a significant low positive association. The associations between other variables and principals' attitude toward sex equity for women were negligible.

Table 6. Relationship Between School Demographic Variables and Principals' Attitude Toward Sex Equity

	Attitude Toward Equity for Women		Attitude Toward Equity for Men	
Variables	r	р	r	p
School size	0.24	<0.001	0.24	< 0.001
Population density of the geographic location	0.21	<0.001	0.15	0.02
Number of years of administrative experience	-0.03	0.34	-0.05	0.28
Highest degree principals held	-0.03	0.34	-0.03	0.34
Number of years of teaching experience	0.02	0.42	0.02	0.40

Note: Correlation coefficient used was Kendall's Tau

The correlation between population density of the geographic location and principals' attitudes toward sex equity for men was found to be r=0.15 (p=0.02), indicating a significant low positive association (See Table 6). Regarding the correlation between school size and principals' attitudes toward sex equity for men, a coefficient of r=0.24 (p<.001) was obtained, indicating a significant low positive association. Correlations between other variables and principals' attitude toward sex equity for men were not significant.

Conclusions and Recommendations

The findings of the study served as the basis for the following conclusions which were derived by the researchers:

- 1. The majority of schools offered business education, vocational home economics, and vocational agriculture courses.
- 2. The majority of schools offered three different vocational programs.
- 3. School size was distributed relatively evenly from very small to large schools.
- 4. Principals are ambivalent toward hiring vocational teachers into nontraditional teaching roles.
- 5. Principals perceived nontraditional occupations for women more equitably than nontraditional occupations for men.
- 6. Population density of the geographic location is positively related to principals' attitudes toward sex equity for both genders.
- 7. School size was positively related to principals' attitudes toward sex equity for both genders.

Recommendations

The lack of advancement toward gender equity has given rise to new concerns. Muraskin (1989) stated that prolonged efforts relating to gender equity with so little progress have contributed to cynicism and ambivalence toward these gender issues. That statement appears to be supported by findings of the current study. Since principals were found to be ambivalent toward hiring vocational teachers into nontraditional teaching roles the researchers recommend the development and implementation of programs directed toward changing these attitudes. These programs might include the formation of a required course for administrative pre-service education and certification that addresses necessary steps and accomplishments for achieving an unbiased school environment. The researchers further recommend that a pilot study be conducted to evaluate the effectiveness of in-service programs focused toward reducing the ambivalence of administrators regarding gender equity. Shealy (1993) found staff development training programs to be successful in reducing sex bias.

Based on the findings and conclusions of this study, the researchers would also recommend that institutions of higher learning charged with the responsibility of preparing school principals incorporate knowledge and promote understanding of sex equity toward hiring of teachers into nontraditional teaching roles, particularly vocational teachers. If this is done, local school principals may recognize future economic gains and personal self-sufficiency from attention to elimination of sex bias. The researchers further recommend that institutions of higher learning provide nontraditional role models, particularly former students who have succeeded as teachers in nontraditional fields, to demonstrate to principals that success and job satisfaction are possible. The researchers also recommend that universities and departments of education continue to develop strong recruitment programs for non traditional gender teachers.

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