
Teachers' Perceptions of Students' Traditional and Nontraditional Career Choices

Brenda A. Tomini

Stewart Page

University of Windsor

Abstract

The present study examined perceptions toward student career choices, of 197 Canadian teachers (61 males and 136 females) enrolled in the teachers' In-Service Program at the Faculty of Education, University of Windsor. Each teacher examined one of eight written vignettes describing a student currently making a career decision. In a factorial design, three factors, student gender, type of occupational choice, and traditionality of the student's extracurricular activities, differed systematically across the eight vignettes. In responses to Likert (7-point) rating scales, both male and female teachers were more likely to encourage the traditional rather than nontraditional male student, and the nontraditional rather than the traditional female student. Traditionality of student activities did not significantly affect judgments regarding careers of males versus females.

Résumé

Cette étude examine la perception de 197 professeurs canadiens (61 hommes et 136 femmes) inscrits au programme de service interne pour les professeurs à la faculté d'Éducation de l'Université de Windsor. Chaque professeur a examiné une des huit vignettes écrites décrivant un(e) étudiant(e) effectuant un choix de carrière. Selon un design factoriel, trois facteurs incluant le sexe de l'étudiant, le type de choix de carrière et le traditionalisme des activités extra-curriculaires de l'étudiant ont différé systématiquement sur toutes les vignettes. En utilisant l'échelle graduée de Likert (7 points), les professeurs masculins et féminins tendaient plus à encourager l'étudiant traditionnel que non-traditionnel et à plutôt encourager l'étudiante non-traditionnelle que traditionnelle. Le traditionalisme des activités étudiantes n'a pas affecté de façon significative les jugements en ce qui concerne les carrières des étudiants en comparaison des carrières des étudiantes. Des perspectives sont offertes quant à l'augmentation du niveau des encouragements pour les carrières non-traditionnelles chez les étudiantes plutôt que les carrières traditionnelles.

The factors influencing women's career development are numerous. Such considerations include gender role conditioning and socialization (Hansen, 1974; Santamaria, 1985), the home-career conflict (Hansen, 1974), advertising (Fox & Renas, 1977), fear of success (Horner, 1972a; 1972b), and participation in extracurricular activities (Metzler-Brennan, Lewis & Gerrard, 1985). More recently, it has become clear that specific groups of individuals also influence female career choice. These include the peer group, parents, family, husbands, counsellors and teachers (Auster & Auster, 1981; Otto & Call, 1985; Sandberg, Ehrhardt, Mellins, Ince & Meyer-Bahlburg, 1987; Tomini & Page, 1992).

Most research examining student career choice has involved various types of counsellors and their influence on career decisions. Generally, although one must be cautious regarding generalizability, these

studies have shown that counsellors often show biases against students' nontraditional occupational choices (Ahrns, 1976; Bingham & House, 1973b; Englehard, Jones & Stiggins, 1976; Haring, Beyard-Tyler & Gray, 1983; Hopkins-Best, 1987; Packer, 1983; Rice, 1977). Little research, however, has explicitly examined the influence teachers may have on students' decisions, nor examined the issue of teachers' perspectives regarding nontraditional occupational choices. Examining these perceptions would seem important, since students clearly spend more time with teachers than with counsellors. Moreover, teachers are commonly cited by students, sometimes more than are counsellors, as having significantly influenced their career choice (Noeth, Egen & Noeth, 1984; Tomini, 1990; Tomini & Page, 1992).

Research which has focused on teachers has indicated that some biases do exist. For example, several studies have found that male students in mixed gender classrooms receive more attention from teachers, and participate in classroom discussions to a greater degree than do female students (Brophy & Good, 1970; Clarricotes, 1980; French & French, 1984; Galton, Simon & Cross, 1980; Good, Sykes & Brophy, 1972; Page, 1992; Spender, 1982; Stanworth, 1981). Teachers may perceive that males may benefit more from this attention, or that male students may have greater potential to contribute to classroom discussions. The resulting learning environment for females may thus create a lack of confidence in their abilities. These students may, in turn, lower their vocational expectations, and thus tend to focus mainly upon occupations considered traditionally appropriate for their gender.

Another form of teacher bias was illustrated by Gold, Crombie and Noble (1987). Girls thought to be less compliant by teachers were also perceived as less competent intellectually. On the other hand, compliance was not found to be a significant predictor with respect to males' intellectual competence. Similarly, Smith, Greenlaw and Scott (1987) found that teachers' choice of reading material was often gender role stereotyped. For example, these authors found teachers to be more than twice as likely to read books aloud to children in which males were the most prominent characters. In addition, they found that very few of the teachers' favourite books featured females as the most prominent characters. Through exposure to such material, children may begin to move away from certain occupations, based upon a lack of exposure to same-sex occupational role models. Indeed, Hechtman and Rosenthal (1991) (described in Page, 1992) found that teachers' nonverbal behaviour (particularly that of males) was independently judged as friendlier and warmer when they taught female students a stereotypically appropriate task (e.g., vocabulary items), than when they taught them a stereotypically inappropriate task (e.g., items requiring mechanical aptitude).

Similarly, these teachers' nonverbal behaviour was friendlier and warmer when teaching male students mechanical as opposed to vocabulary tasks.

Archer and McCarthy (1988), in their review of the research, concluded that there is evidence for gender bias in teachers' evaluation of students' written work. For example, Bernard (1979) found that teachers expected students with masculine attributes to exhibit higher levels of intelligence, independence, and logic. Masculine-typed students, in answering physics questions, were perceived to show better understanding of the question and to have provided answers higher in overall quality, relative to feminine-typed students. This study thus examined what may be an important factor influencing teachers' perceptions of students, that is, the traditionality of the student. Do teachers perceive masculine-typed females as more capable or knowledgeable than feminine-typed females? Further, do they see masculine qualities, in such students, as expediting nontraditional career choices? Similarly, studies by Shapiro (1977) and Towson, Zanna and MacDonald (1985) have also examined traditionality as a component of vocational bias. Findings from these studies show generally that factors such as dress, speech, and mannerisms may affect what is considered by others to be an appropriate occupational choice.

Using a technique which elicited teachers' responses to students described in written vignettes, the present study examined the extent of teacher bias against students expressing an interest in traditional and in nontraditional careers. Several aspects of possible vocational bias were examined: for example, the degree to which teachers agreed with the student's occupational choice, the extent to which they encouraged the student's occupational choice, and the degree to which the teachers would suggest additional or alternative occupations. Also examined were the degree to which teachers felt that the student would be personally successful, financially successful, personally satisfied, and financially satisfied in their chosen occupation. Finally, the degree to which alternative occupations suggested by teachers were traditional or nontraditional were examined.

It was hypothesized, first, that teachers would be less biased (that is, more favourable) toward students choosing a traditional occupational choice, as opposed to a nontraditional choice. It was expected also that teachers would be less biased toward male students considering a traditional male occupation than toward female students contemplating a traditionally male occupation. It was hypothesized, secondly, that teachers would be less biased toward (more encouraging of) traditionally oriented students pursuing traditional occupations, relative to nontraditionally oriented students. It was expected also that teachers would be less biased toward nontraditionally oriented students pursuing nontraditional occupations, as opposed to traditionally oriented students. It was

hypothesized, thirdly, that male teachers would show greater bias, compared to female teachers.

METHOD

Participants

A total of 197 practicing teachers (61 males and 136 females), enrolled in the teachers' In-Service Program, Faculty of Education, University of Windsor, agreed to participate in the study. Sixty-six per cent were over the age of 36. Fifty per cent of the teachers had attended graduate school for at least one year. Eighty-seven per cent held a bachelor's degree in arts, science, or education, while 9% also held a master's degree in one of these areas.

The present teacher participants were enrolled in the Faculty of Education program primarily for purposes of voluntary educational upgrading. Each was taking one or more courses in order to become more qualified in certain areas, for example, in physical education or visual arts, or in necessary requirements for becoming a school principal. Participation of individual teachers in research was completely voluntary. Materials were administered by the first author to the teacher-participants during their regular classroom time, with permission of course instructors in the Faculty of Education, University of Windsor. Participants were informed that the questionnaires involved their reading and responding, in the role of counsellor or advisor, to hypothetical situations portrayed in written vignettes, and were asked to respond as honestly and accurately as possible. All participants signed a written consent form, collected separately from the data, acknowledging their informed and voluntary participation. As far as could be determined, no individual declined participation in the present study, and thus the sample appeared to be a relevant and representative cross-section of teachers. Participants were informed that full reports of the study would be made available at a later date, upon request, and also that all data would be kept completely anonymous and confidential.

Procedure and Measures

Each teacher read one of eight written vignettes, following a $2 \times 2 \times 2$, fully crossed, factorial design. The student described in the vignettes differed according to three factors: gender, traditionality of extracurricular activities and interests, and type (traditionality) of career decision made.

To assess teachers' reactions to the vignettes, teachers responded to eight dependent variable measures. Using a seven-point Likert-type scale, with response alternatives ranging from extreme acceptance to extreme rejection, teachers indicated the degree to which they: agreed/

disagreed with the student's occupational choice, would encourage/discourage the student's occupational choice, and would suggest additional or alternative occupations. In addition, they were asked to what extent they felt that the student would be personally successful, financially successful, personally satisfied, and financially satisfied, in the chosen occupation. Finally, using an open-ended question format, teachers were asked to suggest specific additional occupations that the student might want to consider.

Four vignettes described a young, adult female student making a postsecondary career decision; the other four described a young, adult male student.

The factor of student traditionality was defined by the student's apparent choice of extracurricular and spare time activities. The traditionally oriented male student, and the nontraditionally oriented female student (described in separate vignettes), were described as participating in soccer, hockey, and baseball, and spent his/her spare time repairing cars. The traditionally oriented female student, and the nontraditionally oriented male student (described in separate vignettes) were described as participating in gymnastics, figure skating, and jazz dancing, and spent his/her spare time babysitting.

As a third factor, the vignettes differed in the traditionality of the occupation the student was portrayed as considering. The occupations of dentistry and dental hygiene were used with which to define this variable. These were chosen because they require similar skills and interests, but differ in the amount of education required, and in their traditionality. Nontraditional occupations have been defined in the literature as those occupations in which one gender had historically comprised less than 25 per cent of persons working in the occupation (Chusmir, 1983; Haring et al., 1983; Metha, Rader & Rogers, 1983). According to recent data from Census Canada (1989), the profession of dentistry, using the above criteria, is thus clearly a traditional male occupation (or nontraditional female occupation). Dental hygiene is likewise a clearly traditional female occupation (or nontraditional male occupation). It is noted that definitions of traditionality, and its relationship to gender, can and do vary over time, according to shifts in cultural perspectives and ideologies.

Design and Analyses

To examine main effects, and possible interactions, of the factors described above, the final design was that of a 2 (student gender) \times 2 (traditionality of student) \times 2 (type of occupation) \times 2 (teacher gender) multivariate analysis of variance (MANOVA) for seven of the eight dependent variables described above. The MANOVA was performed using the SAS (1985) GLM (General Linear Models) procedure. The eighth

dependent variable (additional, specific occupations suggested by teachers) was analyzed using the chi-square statistic.

RESULTS

The mean dependent variable scores and standard deviations, by student gender, traditionality, and traditionality of student’s occupational choice, are presented in Table 1.

TABLE 1
Means and Standard Deviations for Dependent Variables

<i>Dependent Variables</i>		<i>FTt</i>	<i>FTn</i>	<i>FNt</i>	<i>FNn</i>	<i>MTt</i>	<i>MTn</i>	<i>MNt</i>	<i>MNn</i>
Agreement/	<i>M</i>	4.54	5.72	4.26	5.45	5.38	5.17	5.33	4.65
Disagreement	<i>SD</i>	1.56	0.84	1.76	1.34	1.07	1.58	1.24	1.57
Encouragement/	<i>M</i>	4.77	5.40	4.83	5.74	5.38	5.08	5.62	4.85
Discouragement	<i>SD</i>	1.42	0.96	1.59	1.06	0.80	1.25	0.97	1.57
Suggest	<i>M</i>	5.96	5.96	5.78	5.10	5.14	5.67	5.29	5.69
Alternatives	<i>SD</i>	1.18	1.37	1.24	1.21	1.85	1.33	1.55	1.26
Personal	<i>M</i>	5.69	5.88	5.57	5.90	5.86	5.71	5.57	5.58
Success	<i>SD</i>	0.93	0.73	1.12	0.65	0.57	1.00	0.75	1.06
Personal	<i>M</i>	5.20	6.12	5.39	6.10	6.10	5.42	6.14	5.27
Satisfaction	<i>SD</i>	0.87	0.60	0.89	0.70	0.54	1.06	0.57	1.31
Financial	<i>M</i>	4.92	5.76	4.95	5.65	5.71	5.00	5.71	4.69
Success	<i>SD</i>	1.20	1.05	1.36	0.95	0.90	1.41	1.06	1.72
Financial	<i>M</i>	4.85	6.12	4.95	5.84	5.81	4.92	5.81	4.54
Satisfaction	<i>SD</i>	1.38	0.67	1.13	1.13	1.03	1.47	0.87	1.58

Note: Dependent variables: F=female, M= male, T=traditional activity, N=nontraditional activity, t=traditional occupation, n=nontraditional occupation.

Type of Occupation

The MANOVA main effects for type of occupation were nonsignificant, that is, using an alpha level of $p \leq .05$. However, a significant two-way (student gender \times type of occupation) interaction was found, using the Hotelling-Lawley Trace criterion ($F(7, 172) = 6.66, p < .05$). Univariate analyses of variance (ANOVAs) were also performed on each of the dependent variables. These were found to be significant, at $p < .05$, for five of the seven dependent variables. The two dependent variables that did not reach significance in the univariate tests were: the degree to which teachers would suggest additional or alternative occupations, and the extent to which teachers felt that the student would be personally successful.

Inspection of the significant ($p \leq .05$) effects showed that, with respect to teachers' encouragement/discouragement, teachers were more likely to encourage the male student if his chosen occupation was traditional as opposed to nontraditional. Teachers were not more likely, however, to encourage the traditional male student than they were to encourage the nontraditional female student. Perhaps surprisingly, teachers were generally much more likely to encourage the female when she indicated the nontraditional, rather than traditional, career choice.

With respect to financial success and personal and financial satisfaction, teachers felt that the nontraditional male student would be less financially successful, the less personally and financially satisfied, than his traditional counterpart. However, teachers felt that the nontraditional female student would be more financially successful, and more personally and financially satisfied, than her traditional female counterpart. Teachers did not feel that the traditional male student would be more financially successful, or more personally and financially satisfied, than would the nontraditional female student.

With respect to teachers' agreement/disagreement, although teachers agreed less with the male's choice of the nontraditional career as compared to the traditional career, this difference was not statistically significant. Also, although teachers agreed somewhat more with the female indicating a nontraditional career choice than they did with the male indicating the same (traditional for males) career choice, this difference was not statistically significant. Perhaps surprisingly, teachers agreed significantly less with the female student's choice of the traditional occupation than they did when she chose a nontraditional occupation.

A chi-square analysis was conducted to assess the degree to which teachers suggested a specific alternative career that was gender-stereotyped. Teachers were significantly more likely to suggest a traditional (gender-stereotyped) career to the nontraditional male student than they were to the traditional male student [$X^2 (1, N=78)=5.7, p < .05$]. Further, they were more likely to suggest a traditional, as opposed to a nontraditional career, to both the male student with nontraditional extracurricular interests [$X^2 (1, N=59)=27.1, p < .05$] and to the male student with traditional interests [$X^2 (1, N=35)=11.4, p < .05$]. However, teachers were not more likely to suggest a traditional occupation to the female student with nontraditional interests than they were to the female student with traditional interests. In fact, teachers were generally more likely to suggest a specific nontraditional career, as opposed to a traditional career, to both the traditional [$X^2 (1, N=50)=21.8, p < .05$] and the nontraditional [$X^2 (1, N=47)=12.3, p < .05$] female students.

With reference to female students, some of the most frequent non-traditional occupations suggested were: doctor, lawyer, chemical en-

gineer, automobile mechanic, oceanographer, biologist, and chemist. Some of the most frequent traditional occupations suggested were: nurse, physiotherapist, X-ray technician, and occupational therapist.

For male students particularly, teachers were more likely to give encouragement to those favouring traditional occupations, and to feel that they would be more financially successful and more personally and financially satisfied, compared to their nontraditional counterparts.

Traditionality of Student

None of the MANOVA, ANOVA main effects, or chi-square tests concerning traditionality of students' extracurricular or spare time activities, as possible predictors of dependent variable scores, was significant at $p \leq .05$.

Teacher Gender

As above, it was interesting that none of the MANOVA or ANOVA main effects involving teacher gender reached statistical significance. However, hopefully as the basis for possible future research, we noted that male teachers were more likely than female teachers to agree with the nontraditionally oriented female student's choice of a nontraditional occupation, and to agree with a nontraditionally oriented male's choice of a nontraditional occupation.

Additional Findings

A significant univariate main effect for type of occupation was found [$F(1, 178) = 5.74, p < .05$] for one of the dependent measures. That is, teachers more strongly agreed with the occupational choice of dentistry than that of dental hygiene.

A significant univariate interaction was found between traditionality of student and teacher gender [$F(1, 178) = 5.49, p < .05$] for the degree to which teachers would encourage/discourage the student's occupational choice. A marginally significant interaction [$F(1, 178) = 3.53, p < .06$] was found for the degree to which teachers agreed/disagreed with the student's occupational choices. Thus, male teachers were more likely than female teachers to encourage both the traditionally and nontraditionally oriented students. As well, male teachers were more likely to generally encourage nontraditionally oriented as opposed to traditionally oriented students. Although the differences were not large, we noted that female teachers tended to agree more with the traditionally oriented students, while male teachers tended to agree more with the nontraditionally oriented than with the traditionally oriented students.

DISCUSSION

The results showed generally that there was little, if any, bias against females entering nontraditional occupations. For females, the first hy-

pothesis, described above, was therefore not supported; in fact, its opposite was found to be true in many instances. Teachers were more likely to agree with and encourage the nontraditional female student than the traditional female student. For the female student, teachers were also more likely to suggest a nontraditional than a traditional alternative. This might be considered an encouraging finding in light of past research concerning biases of vocational counsellors against nontraditional occupational choices for females (e.g., Haring et al., 1983; Hopkins-Best, 1987; Packer, 1983). The literature review by Hopkins-Best, for example, suggested that counsellors generally discourage females from pursuing jobs considered more stereotypically appropriate for males. However, the present findings did indicate some general bias (i.e., less encouragement) against the occupation of dental hygiene, as teachers were less likely to agree with this occupational choice, as compared to the occupational choice of dentistry. Future research should therefore certainly examine other occupations, and other similar measures, to ensure that these findings are not limited to fields such as those of dentistry and dental hygiene. It should be noted, and it is perhaps revealing, that it is difficult to find and compare traditional and nontraditional occupations which do not also differ in status, income, and gender distribution.

Teachers felt that the female student making a nontraditional career choice would be more personally and financially satisfied, and more financially successful, than her traditional female counterpart. While they did not feel that the nontraditional female student would be more "personally successful," we note that since only nine per cent of dentists in Canada are female, this accomplishment would indeed represent a personal success of considerable magnitude in the case of a female student. Teachers may not perceive such an achievement to be an important aspect of personal success because they may not feel females do, or should, measure personal success in terms of career accomplishments. Another possible interpretation is that the variable of personal success was simply not believed to be an important variable by the teachers.

There appeared generally to be less encouragement of the nontraditional, relative to the traditional, male student. In addition, teachers were more likely to suggest a traditional, as opposed to a nontraditional, alternative career direction in the case of male students. These findings thus imply that teachers may be somewhat biased against, that is, less likely to encourage, males entering nontraditional instead of traditional occupations. In a still wider sense, it might be noted here that there is considerable evidence in the recent literature that deviance or nonconformity in males is frequently perceived as more serious in general, and more problematic, as compared to perceptions of similar nonconformity in females (Page, 1992).

Teachers felt generally that the male student making a nontraditional career choice would be less personally and financially satisfied, and less financially successful, than either the traditional male or nontraditional female student. The fact that dental hygienists receive lower incomes than dentists might partially account for teachers' generally lower ratings on the financial satisfaction and financial success variables. However, it is also conceivable that the teachers may have felt that males would not be happy, or would feel uncomfortable, working in an occupation dominated by women. Another possibility is that teachers feel there is a positive correlation between a male's level of personal satisfaction in his occupation and the occupation's status and/or rate of pay.

In terms of its general perspective toward traditional or nontraditional occupational choices in students, the present teacher sample thus appeared to present a more positive, more egalitarian, and perhaps more idealistic, picture than what has generally been found in recent research, previously cited (e.g., Archer & McCarthy, 1988) with vocational (e.g., high school) counsellors.

In our opinion, the present findings seem especially noteworthy, since, for example, they do not strongly support the view that teachers would respond in an occupationally or gender-stereotyped fashion, particularly with reference to the female student. Indeed, such a view could have been supported, a priori, by the fact that females remain clearly underrepresented in occupations and university programs traditionally occupied by men. We also note the classic study by Buczek (1981), wherein the counselling concerns of female clients were not remembered or attended to as well as were those of male clients. More recently, the *Harvard Educational Letter* (cited in Hechtman & Rosenthal, 1992) reported research in which teachers generally asked fewer questions of, and spent less instructional time, with females. They answered questions from male students in a way that implied faith in these students' "natural" abilities, but answered female students' questions in a way that implied that they took their abilities somewhat less seriously. Page and Rosenthal (1991) also found that teachers generally expected female university students to be less able in mathematics, relative to males, but more able in vocabulary and verbal tasks relative to male students. When observed in actual teaching situations, it was observed that teachers tended to instruct female students in vocabulary tasks in ways which advantaged them relative to male students, but taught male students mathematical tasks in ways which advantaged them relative to female students. Indeed, the general stereotype of the computer scientist remains largely masculine in connotation (Matheson & Strickland, 1986; Meretsky & Page, in press).

In utilizing the vignette procedure in the present study, one is forced to trade certain advantages, in terms of efficiency, standardization of

procedure, and control, for possible disadvantages in terms of determining the limits of generalizability. We thus acknowledge here, for example, the important question regarding to what degree the present results reflect the actual behaviour and pedagogical practices of our teacher sample. Thus, another important question for future research remains, namely, that of whether teachers adhere to the egalitarian pattern found in the present study when interacting with, counselling, and instructing students in actual classroom settings. Hopefully, future research will also investigate teachers' perceptions of particular professions, and further aspects of students' career decision-making in addition to the ones specifically examined in the present study. An interesting aspect of these issues concerns the extent to which teachers or counsellors now do not encourage, or even may actively discourage, traditional choices for females, plus the associated question of what effects this trend might have upon students' overall sense of well being and vision for their future.

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About the Authors

Brenda A. Tomini completed her bachelor's degree in psychology at York University, Toronto, master's degree in psychology at the University of Windsor, and is currently a doctoral candidate in psychology at the University of Windsor.

Stewart Page completed his bachelor's and master's degrees at the University of Western Ontario, London, Ontario, and Ph.D. in social psychology at the University of Toronto. He is presently professor of psychology at the University of Windsor.

Additional details about procedures, analyses, professions suggested by teachers, or copies of vignettes, may be obtained from the authors upon request. Address correspondence to Brenda A. Tomini, or Stewart Page, Department of Psychology, University of Windsor, 401 Sunset, Windsor, Ontario N9B 3P4.

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