

ED 164 552

TH 007 205

AUTHOR Blair, Mark W.; And Others
 TITLE Development of the Tredyffrin/Easttown Sex Fairness Survey.
 INSTITUTION Research for Better Schools, Inc., Philadelphia, Pa.
 PUB DATE Mar 78
 NOTE 35p.; Paper presented at the Annual Meeting of the American Educational Research Association (62nd, Toronto, Ontario, Canada, March 27-31, 1978)

EDRS PRICE MF-\$0.83 HC-\$2.06 Plus Postage.
 DESCRIPTORS Adolescents; Adults; *Attitude Tests; *Females; *Males; Rating Scales; Secondary Education; *Sex Fairness; *Sex Role; *Test Construction; Test Items; Test Reliability; Test Validity
 IDENTIFIERS *Tredyffrin Easttown Sex Fairness Survey

ABSTRACT

The Tredyffrin/Easttown Sex Fairness Survey was designed to assess sex fairness in attitudes toward both sexes in work, home, educational, social, and other contexts. Each subscale contains positively and negatively worded Likert-type items of three types: trait to group; role to group; and judgment of individuals based on group. A preliminary test was administered to three different groups of adults and a high school sample; factor analysis resulted in male and female factors. An examination of test reliability indicated that it was internally consistent and supported the two-factor construction. Construct validity was supported by the high correlations between trait to group, role to group, and individual judgment based on group items. Concurrent validity was also examined, using a semantic differential assessment of attitude toward gender. Although this instrument was reliable, it did not correlate with the original Sex Fairness Survey, or support its validity. A second administration of both instruments to a sample of over 1,000 individuals produced similar results. The final 84-item Sex Fairness Survey and the 25-item semantic differential (used once to describe males, once females) are appended. (GDC)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

Printed in U.S.A.

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

DEVELOPMENT OF THE TREDYFFRIN/EASTTOWN
SEX FAIRNESS SURVEY

Mark W. Blair

Joan L. Buttram

John F. Strandmark

PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

George Harwood
Mark Blair

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC) AND
USERS OF THE ERIC SYSTEM.

Research for Better Schools, Inc.
1700 Market Street, Suite 1700
Philadelphia, Pennsylvania 19103

Paper presented at the
1978 Annual Meeting of the
American Educational
Research Association

Toronto, Ontario, Canada
March 1978

ED164552

TM007 205

Development of the Tredyffrin/Easttown
Sex Fairness Survey

Mark W. Blair

Joan L. Buttram

John F. Strandmark

Research for Better Schools, Inc.
1700 Market Street, Suite 1700
Philadelphia, Pennsylvania 19103

ABSTRACT

The Tredyffrin/Easttown Sex Fairness Survey is designed to assess sex fairness toward members of both genders in a variety of contexts. Each subscale of the survey contains positively and negatively presented Likert formatted items of three types: trait to group, role to group, and judgment of individuals based on group. The paper traces the development and documents the psychometric properties of the survey. Reliability coefficients are presented for the total survey and each subscale. Two indices of construct validity are presented.

Printed in U.S.A.

Development of the Tredyffrin/Easttown
Sex Fairness Survey

Mark W. Blair
Joan L. Buttram
John F. Strandmark

Research for Better Schools, Inc.
1700 Market Street, Suite 1700
Philadelphia, Pennsylvania 19103

OBJECTIVES

The objective of this study was the development of a reliable, validated attitudinal instrument which assessed the fairness of attitudes toward both genders in a variety of settings. The objective reflected the lack of attitudinal instrumentation in the area of gender fairness and the need for a psychometrically sound instrument to assess the impact of a specific educational program.

Shaw and Wright (1967) presented the definition of attitude used in this effort; attitudes are relatively enduring, covert systems of implicit affective and evaluative reactions which are based on learned concepts or beliefs about characteristics of social objects or classes of objects.

An intensive review of existing instrumentation in the area of gender fairness indicated that no attitudinal measure existed which could assess sex fairness toward both genders in educational and other settings. Some instruments focused on attitudes toward only females (Bingham & House, 1973, 1975; Baruch, 1972; Gump, 1972; Spence & Helmreich, 1972; Spence, Helmreich, & Stapp, 1975). Other instruments addressed single factors such as employment (Britton & Thomas, 1973; Dewey, 1974; Feather, 1975; Babladelis, 1973), education (Rosen & Jerdee, 1974; Rosen, Jerdee, & Prestwich, 1975), home or familial situations (Straus, 1962; Tharp, 1963), or general social settings (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Rosenkrantz, Vogel, Bell, Broverman, & Broverman, 1968; Nielson & Doyle, 1975). The few instruments which addressed multiple factors and both genders did not specifically address sex fairness in educational settings (Macdonald, 1975; Deaux & Emswiler, 1974; Osmond & Martin, 1975; Haavio-Manilla, 1972). Figure 1 presents an overview of genders and areas of focus of the instrumentation reviewed.

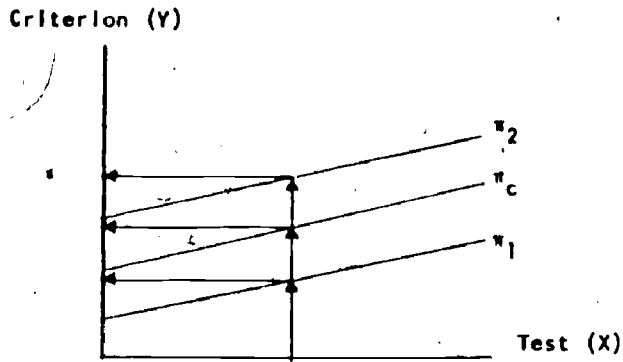
Gender	Area of Attitudinal Interest				
	Work	Education	Home/Family	General Social	Other/Multiple
Females	Bingham & House (1973) (1975) Graham (1973) Bass, Krussell, Alexander (1971) Baruch (1972)			Harris (1973)	Etaugh (1973) Gump (1972) Kaplan & Goldman (1973) Luetgert (1975) Lunneborg (1974) Meier (1972) Parelius (1975) Herman & Sedlacek (1973) Spence & Helmreich (1973) Spence & Helmreich (1972) Spence, Helmreich, Stapp (1975)
Males					
Both	Britton & Thomas (1973) Dewey (1974) Feather (1975) Babladelis (1973)	Rosen & Jerdee (1974) Rosen, Jerdee, & Prestwich (1975) Harris (1976)	Strauss (1962) Tharp (1963)	Broverman et. al. (1972) Rosenkrantz et. al. (1968) Nielsen & Doyle (1975)	Deaux & Emswiler (1975) Macdonald (1975) Osmond & Martin (1975) Haavis-Mannila (1972)

Figure 1. Existing Instrumentation in Gender Fairness

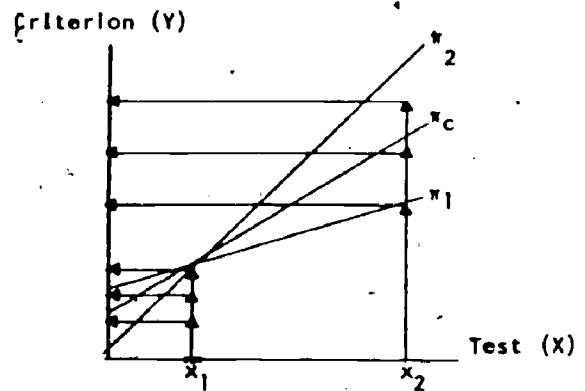
An impetus to the development of the instrument was the involvement of the authors in the design and conduct of a validation study of the effectiveness of an educational program. The Tredyffrin/Easttown (T/E) School District (PA.) received a grant from the Women's Educational Equity Act Program to develop and validate "The Tredyffrin/Easttown Sex Fairness Program." The school district retained Research for Better Schools and the authors of the instrument to perform the validation study.

PERSPECTIVES OR THEORETICAL FRAMEWORK

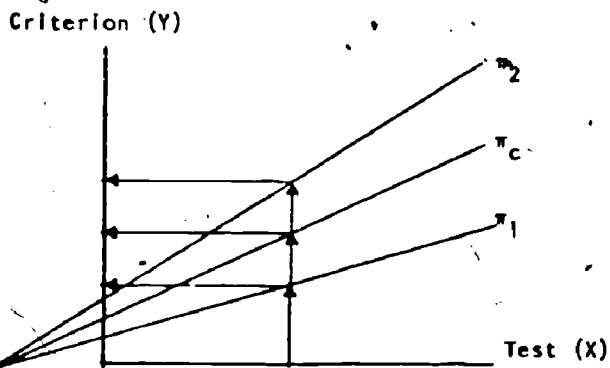
The National Institute of Education (NIE) defined sex bias within the context of career guidance as any factor which might influence individuals to limit the consideration of careers on the basis of gender (Diamond, 1974). Cole (1973) defined fairness as equal opportunity for potentially successful applicants regardless of group membership. Equal opportunity can be defined by mathematical models (Cleary, 1968; Darlington, 1971; Guion, 1966; Thorndike, 1971; Cole, 1973). The regression model suggested by Cleary (1968) was deemed most relevant to the development of an attitudinal measure since it necessitates no prior knowledge of the groups considered in the instrument. Figure 2 illustrates the regression model of fairness (Peterson & Novick, 1976).



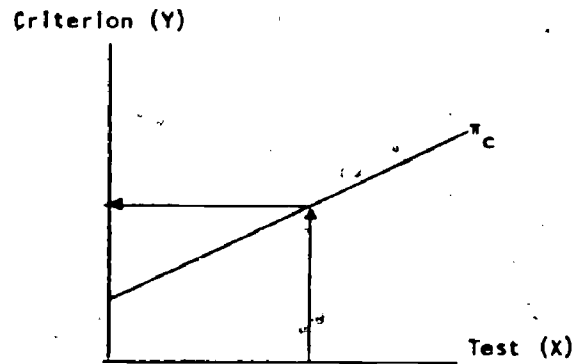
(a). Subpopulations with parallel regression lines but different intercepts.



(c). Subpopulations with different regression lines. Point of intersection inside range of possible test scores.



(b). Subpopulations with different regression lines. Point of intersection outside range of possible test scores.



(d). Subpopulations with common regression line.

Figure 2. Illustration of Fairness as Defined by the Regression Model

Fairness exists within the regression model when there are parallel regression lines and equal intercepts for two groups; the fair situation is illustrated in Figure 2 (d). Equal means exist when the first two conditions are met. Unequal means indicate that either parallel regression lines as illustrated in Figure 2 (b) and (c) and/or equal intercepts as illustrated in Figure 2 (a) do not exist. The conditions illustrated by (b), (c) and (a) are unfair or biased.

A review of other attempts to measure sex fairness or gender related attitudes illustrated the use of three types of or approaches to the measurement of attitudes. Attitudes can be expressed by assigning traits to a group; instruments which include this approach have been described by Rosenkrantz et. al. (1968), Babladellis (1973), Williams and Bennett (1975), and Zeldow and Greenberg (1975). Attitudes can be expressed by assigning roles to groups; instruments which include this approach have been described by Simond and Martin (1975), Spence and Helmreich (1972), Meier (1972), Gump (1972), Brodsky, Elmore and Naffziger (1976) and Parelus (1975). Attitudes can also be reflected in judgments about individuals based on knowledge of the individual's membership in groups; instruments which include this approach have been described by Harris (1975), Deaux and Emsweiler (1975), Rosen and Jerdee (1974) and Rosen et. al. (1975).

Types of validity relevant to the construction of this attitudinal instrument were concurrent, content, and construct validity (Cronbach and Meehl, 1955). Concurrent validity is the substitution of one instrument

for another. Content validity is the inclusion only of test items which are a sample of the universe of interest. A construct is a postulated attribute of persons that is presumed to be measurable. Loevinger (1957) noted that three aspects of construct validity closely related to stages of test construction: constitution of the item pool, selection of items to form a scoring key based on an analysis of the internal structure, and correlation of test scores with criteria and other variables.

Simultaneous administration of test items representing different approaches to measurement offers the opportunity to assess the construct validity concurrent with the administration of the instrument.

METHODOLOGY AND RESULTS

Development and documentation represent discrete stages in the construction of the T/E Sex Fairness Survey. A methods and data source section and a results section describe the procedures and outcomes of each of the stages.

Methods and Data Source - Development

The development of the T/E Sex Fairness Survey occurred in five steps. The first two steps are presented in this section. The last three steps are described in the results of the development section.

Construction of initial item pool.

The definition of bias and the need for multidimensional assessment of attitudes were reflected in design characteristics for the item pool.

Attitudes toward both genders were to be assessed in a variety of contexts through the use of three types of measurement: Assigning traits to groups, roles to groups, and making judgments of individuals based on knowledge of group membership. The contexts specified in the design characteristics were education, employment, home or familial, and general social. Positively and negatively presented items were to be written for each gender, context, and type of measurement.

An initial item pool of 286 Likert type items was constructed containing items for females and males for each of the originally specified contexts. Positively and negatively presented items of three types were contained in each setting.

The validity of the item pool was assessed in two fashions. Writers reviewed all items for face validity of item type, gender, and context. Items considered by the writers to have face validity were referred to the senior author for an additional check on face validity. The senior author also reviewed these items for content validity.

First Administration of Instrument.

In the Spring of 1977, the prototypic survey was administered to 180 subjects representing four groups. Three of the four groups were selected to contain individuals presenting a continuum of sex fairness. One group was composed of 34 staff who had used or contributed to the development of the T/E Sex Fairness program. The second group contained 55 individuals from the administrative and instructional staff of a traditionally oriented school district in Utah. The third group consisted

of 45 members of the professional staff of Research for Better Schools. The fourth group was selected to determine if the instrument could be used with high school aged students; this group consisted of 46 Virginia high school students. All four groups contained both females and males.

Table I below presents a summary of the groups to which the prototypic version of the survey was administered.

Table I
Samples Used in First Administration

Sample	Number
Sex Fairness User Group	34
Traditional Group	55
Laboratory Group	45
Youth Group	46
All	180

The 286 items of the prototypic version of the survey were divided into two sections. The presentation of the two sections was counter-balanced within each group.

Results - Development

Three sets of analyses were conducted on the data resulting from the first administration. The first set of analyses was directed at developing the final draft of the instrument. The second and third set examined the reliability and validity of the final instrument draft. Results of each set of analyses are reported below.

Factor Analyses.

In order to conduct the factor analyses, the original item pool of 286 items had to be reduced. Existing computer statistical packages accommodate a maximum of 250 items. In order to eliminate 36 items, item to total score correlations were calculated for the total sample. The 36 items with the lowest item to total score correlations were then eliminated. The remaining items possessed item to total score correlations of .34 or higher.

A principal components factor analysis - varimax solution (SAS, 1976) was then conducted. Solutions for different numbers of factors were examined and a two-factor solution was determined to best fit the data. These factors were labelled Attributed and Behaviors. Items were grouped according to two criteria: (1) type of item (trait to group, role to group, and judgment of individual based on group) and (2) gender reference of item. Within each of these six groups, items were ranked according to their factor loadings. Items were selected for inclusion in the final draft of the instrument so that it contained equal numbers of female and male items with the highest factor loadings within each item type. Items

that loaded moderately on both factors or with factor loadings of less than .30 were not considered for inclusion in the final instrument draft. A total of 84 items were selected and randomly ordered to form the final draft of the survey. Table 2 presents the factor loadings for the final item pool.

Table 2
Item Factor Loadings

Item Types	Factor 1				Factor 2			
	Male		Female		Male		Female	
	Item	Factor Loading	Item	Factor Loading	Item	Factor Loading	Item	Factor Loading
Trait to Group	59	.52	58	.66	18	.65	30	.64
	52	.46	11	.59	22	.56	67	.57
	57	.46	74	.59	26	.55	31	.56
	78	.45	8	.57	33	.54	39	.54
	38	.42	5	.55	62	.54	68	.54
	77	.42	36	.53	47	.53	16	.52
	46	.38	84	.52	63	.53	34	.52
	73	.37	76	.46	17	.51	40	.52
Role to Group	2	.69	29	.70	20	.70	48	.67
	60	.69	72	.70	24	.63	1	.64
	70	.68	35	.69	45	.59	25	.61
	6	.64	14	.67	23	.58	13	.60
	64	.63	66	.66	7	.57	65	.60
	19	.60	80	.65	41	.55	75	.56
	54	.58	81	.65	44	.53	37	.55
	9	.54	15	.63	55	.53	61	.55
Individual Based on Group	51	.68	10	.72	27	.67	4	.59
	21	.60	53	.71	82	.66	79	.53
	3	.51	50	.70	43	.65	71	.49
	49	.42	12	.69	69	.60	28	.46
	42	.39	56	.61	32	.52	83	.39

Reliability.

The reliability of the survey was determined in two ways: (1) calculation of Spearman-Brown split-half reliability coefficients and (2) calculation of correlations between factors, female and male items, and female and male items within each factor. Each is presented separately.

In order to determine the internal consistency of the instrument, Spearman-Brown split-half reliability coefficients were calculated for the two factors, female and male items, female and male items within each factor, and the total instrument. Table 3 reports the reliability coefficients.

Table 3

Spearman-Brown Reliability Coefficients

Item Scale	Reliability Coefficients
Factor 1	.95
Factor 2	.94
Female Items	.76
Male Items	.76
Female Factor 1 Items	.92
Male Factor 1 Items	.88
Female Factor 2 Items	.92
Male Factor 2 Items	.94
Total	.95

The Spearman-Brown split-half reliability coefficients indicate that the instrument is internally consistent.

Intercorrelations between the two factors, female and male items, female and male items within each factor, and each of these with the total score provide another method of assessing the reliability of the instrument. These are reported in Table 4.

Table 4
Item Scale Intercorrelations

Item Scales	Factor 1	Factor 2	Female	Male	Female Factor 1	Male Factor 1	Female Factor 2	Male Factor 2	Total
Factor 1	-	.65	.94	.90	.98	.97	.66	.60	.94
Factor 2	-	-	.83	.88	.62	.65	.97	.97	.87
Female	-	-	-	.92	.94	.88	.86	.75	.98
Male	-	-	-	-	.84	.92	.84	.87	.98
Female Factor 1	-	-	-	-	-	.90	.64	.56	.91
Male Factor 1	-	-	-	-	-	-	.66	.60	.92
Female Factor 2	-	-	-	-	-	-	-	.60	.87
Male Factor 2	-	-	-	-	-	-	-	-	.82

All intercorrelations were found acceptable and indicative of the instrument's reliability and supportive of the two factor construction of the instrument.

Validity.

Concurrent construct validity of the instrument was assessed by calculating the correlations between trait to group, role to group, and judgment of individuals based on group items. These are reported in Table 5.

Table 5
Validity Coefficients

Type of Item	Trait to Group	Role to Group	Individuals based on Group	Total
Trait to Group	-	.86	.80	.94
Role to Group	-	-	.91	.97
Individuals Based on Group	-	-	-	.94

All correlations are high and indicative of the concurrent construct validity of the instrument.

Methods and Data Source - Documentation

The final draft of the T/E Sex Fairness Survey was submitted to an extensive documentation effort. The validation of the school district developed materials afforded the opportunity for a large scale use of the final draft of the survey. In the Fall of 1977, a validation sample of 1049 respondents was created; these individuals represented users, potential users, and representative members of the professional staffs of 30 Pennsylvania school districts participating in the validation study of the T/E program.

The sample was mailed the T/E Sex Fairness survey, a 50 item semantic differential derived from Babladelis (1973) and Nielson and Doyle (1975),

and a postage paid return envelope.¹ Further response was facilitated by a follow-up letter mailed to the entire sample; the follow-up thanked participants for their return of the instruments and encouraged the return if they had not yet responded.

A sample of 725 individuals or 69.1 percent returned the T/E Sex Fairness Survey. A sample of 604 or 57.6 percent returned the semantic differential.

Results - Documentation

Analyses of the data obtained from the second administration of the survey focussed on determining (1) the reliability of the final instrument and (2) the validity of the final instrument. The results of these efforts are reported separately.

Reliability of the T/E Sex Fairness Survey.

The reliability of the final instrument draft was calculated for the second sample of respondents. Spearman-Brown split-half reliability coefficients were calculated for the two factors, female and male items, female and male items within each factor, and the total instrument. They are presented in Table 6.

¹One item (lenient-severe) was omitted from final analyses for each gender.

Table 6

Spearman-Brown Reliability Coefficients
Documentation Sample

Item Scale	Reliability Coefficients
Factor 1	.92
Factor 2	.91
Female Items	.81
Male Items	.81
Female Factor 1 Items	.86
Male Factor 1 Items	.84
Female Factor 2 Items	.84
Male Factor 2 Items	.82
Total	.94

The Spearman-Brown split-half reliability coefficients indicate that the instrument is internally consistent.

Intercorrelations between each of the above item scales were also calculated to provide another method of assessing the instrument's reliability. Table 7 reports these intercorrelations.

Table 7

Item Scales Intercorrelations
Documentation Sample

Item Scales	Factor 1	Factor 2	Female	Male	Female Factor 1	Male Factor 1	Female Factor 2	Male Factor 2	Total
Factor 1	-	.69	.93	.90	.97	.95	.74	.67	.95
Factor 2	-	-	.86	.91	.64	.69	.89	.91	.91
Female	-	-	-	.89	.93	.84	.85	.75	.97
Male	-	-	-	-	.81	.94	.85	.90	.97
Female Factor 1	-	-	-	-	-	.84	.68	.61	.91
Male F Factor 1	-	-	-	-	-	-	.73	.69	.93
Female Factor 2	-	-	-	-	-	-	-	.84	.89
Male Factor 2	-	-	-	-	-	-	-	-	.85

All intercorrelations were high and indicative of the instrument's reliability.

Validity of the T/E Sex Fairness Survey.

Two approaches were used to determine the validity of the T/E Sex Fairness Survey. The first used the concurrent construct validity procedures explicated above. The second procedure used a semantic differential technique as an external referent. Each procedure is described.

Concurrent construct validity. To assess the concurrent construct validity of the instrument, correlations were calculated between trait to group, role to group, and judgment of individuals based on group items. These correlations are reported in Table 8.

Table 8

Validity Coefficients
Documentation Sample

Type of Item	Trait to Group	Role to Group	Individuals Based on Group	Total
Trait to Group	-	.89	.87	.96
Role to Group	-	-	.88	.97
Individuals based on Group	-	-	-	.94

All correlations are high and indicative of the concurrent construct validity of the instrument.

Semantic Differential. A semantic differential technique was used as a second index of the construct validity of the T/E Sex Fairness Survey. The first step in the use of the semantic differential technique as a validity index was the assessment of the reliability of the instrument. The reliability of the semantic differential instrument was assessed by calculating Spearman-Brown split-half reliability coefficients. Table 9 presents these reliability coefficients.

Table 9

Spearman-Brown Reliability Coefficients
Documentation Sample

Item Scales	Reliability Coefficients
Female	.83
Male	.84
Total	.79

The semantic differential instrument was determined to be internally consistent.

Correlations were calculated between the semantic differential instrument and the T/E Sex Fairness Survey. These are presented in Table 10.

Table 10
Intercorrelations Between Two Instruments
Documentation Sample

T/E Sex Fairness Survey Item Scales	Semantic Differential Scales		
	Female	Male	Total
Factor 1	.02	-.13	-.06
Factor 2	.12	-.03	+.05
Female	.08	-.10	-.01
Male	.05	-.09	-.02
Female Factor 1	.03	-.13	-.05
Male Factor 1	.01	-.12	-.06
Female Factor 2	.11	-.04	+.04
Male Factor 2	.10	-.03	+.04
Total	.06	-.10	-.02

The two instruments did not significantly correlate; the validity of the T/E Sex Fairness Survey is not supported by the use of the semantic differential instrument as an outside referent.

DISCUSSION

The objective of this study was the development of a reliable, validated, attitudinal instrument which assessed the fairness of attitudes toward both genders in a variety of settings. This paper has traced the development of such an instrument from its inception through extensive efforts to document its psychometric quality.

A mathematical regression model of fairness served as the conceptual base from which the instrument was derived. Individuals using the survey were afforded the opportunity to express their attitudes toward both genders in a variety of settings. A total of 286 items sampled the universe of attitudes toward females and males. These items represented three types of items or approaches to measurement: Assigning traits to groups, assigning roles to groups, and judging individuals based on knowledge of group membership. All items were presented in a Likert format.

The initial items were administered to a sample of 180 persons representing three groups of adults and one group of adolescents. Factor analyses were conducted on the resulting data and it was concluded that two factors offered the best explanation of the data. These factors were labelled Attributes and Behaviors.

The final draft of the survey was constructed on the basis of the factor analyses. A total of 84 items equally assessing each gender and factor was selected on the basis of factor rankings. Items representing each type of item were also distributed equally across factors and genders.

Spearman-Brown reliability coefficients and item scale intercorrelations were supportive of the two factor construction of the instrument and indicative of a highly reliable instrument.

The concurrent construct validity of the survey was assessed by computing correlations between the three item types. These correlations indicated a high validity for the survey.

The final draft of the T/E Sex Fairness Survey was administered to a second sample of over 1000 individuals. The purpose of the second administration was the documentation of the psychometric qualities of the survey. A semantic differential instrument was also administered to this sample.

Spearman-Brown split-half and item scale intercorrelation coefficients were calculated for the second administration. These offered strong support for the conclusion of a highly reliable instrument.

Validity indices were also calculated for the second sample. Concurrent construct validity indices indicated that the survey had a high level of validity. Intercorrelation between the semantic differential and the survey offered no support for the validity of the instrument.

The developmental process and repeated administration offer strong evidence that the T/E Sex Fairness Survey is a highly reliable instrument. The evidence regarding the validity of the survey is less conclusive. Results obtained with the semantic differential conflict with those obtained from comparisons of different items or approaches to measurement contained within the survey. The degree to which one can accept different

item approaches as discrete forms of measurement is the degree to which the survey has been validated to date.

Other studies of the validity of the survey are both warranted and desired. Self and other rating of the sex fairness of individuals offers a potential external referent. Completion of the validation study of the school district developed program offers an opportunity to ascertain the ability of the survey to discriminate between samples. Factor analyses of other administrations of the survey offer yet another method of obtaining evidence of the validity of the survey.

REFERENCES

- Babladelis, G. Sex-stereotyping students' perceptions of college professors. Perceptual and Motor Skills, 1973, 37, 47-50.
- Barr, A. J., Goodnight, J. H., Sall, J. P. & Helwig, J. T. A User's Guide to SAS 76. Raleigh, N. C.: SAS Institute, Inc., 1976.
- Baruch, G. K. Maternal influences upon college women's attitudes toward women and work. Developmental Psychology, 1972, 6 (1), 32-37.
- Bingham, W. C. and House, E. W. ACES' members attitudes toward women and work. Counselor Education and Supervision, 1975, 14 (3), 204-214.
- Bingham, W. C. and House, E. W. Counselor's attitudes toward women and work. Vocational Guidance Quarterly, 1973, 22 (1), 16-23.
- Britton, J. O. and Thomas, K. R. Age and sex as employment variables: views of employment service interviewers. Journal of Employment Counseling, 1973, 10 (4), 180-186.
- Brodsky, A. M., Elmore, P. B., and Naffziger, N. Development of the attitudes toward feminist issues scale. Measurement and Evaluation in Guidance, 1976, 9 (3), 140-145.
- Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E. and Rosenkrantz, P. S. Sex-role stereotypes: a current appraisal. Journal of Social Issues, 1972, 28 (2), 59-78.
- Cleary, T. A. Test bias: prediction of grades of Negro and White students in integrated colleges. Journal of Educational Measurement, 1958, 5, 115-124.
- Cole, M. S. Bias in selection. Journal of Educational Measurement, 1973, 10 (4), 237-255.
- Cronbach, L. J. and Meehl, P. E. Construct validity in psychological tests. Psychological Bulletin, 1955, 52, 281-302.
- Darlington, R. B. Another look at "culture fairness." Journal of Educational Measurement, 1971, 8, 71-82.
- Deaux, K. and Emswiller, T. Explanations of successful performance on sex-linked tasks: what is skill for the male is luck for the female. Journal of Personality and Social Psychology, 1974, 29 (1), 80-85.

- Dewey, C. R. Exploring interests: a non-sexist method. Personnel and Guidance Journal, 1974, 52 (5), 311-315.
- Diamond, E. E. In Diamond, E. E. (ed.). Issues of Sex Bias and Sex Fairness in Career Interest Measurement. Washington, D. C.: National Institute of Education, 1975.
- Feather, N. T. Positive and negative reactions to male and female success and failure in relation to the perceived status and sex-typed appropriateness of occupations. Journal of Personality and Social Psychology, 1975, 31 (3), 536-548.
- Guion, R. Employment tests and discriminatory hiring. Industrial Relations, 1966, 5, 20-37.
- Gump, A. Sex role attitudes and psychological well-being. Journal of Social Issues, 1972, 28 (2), 79-92.
- Harris, M. B. The effects of sex, sex stereotyped descriptions, and institution on evaluation of teachers. Sex Roles, 1976, 2 (1), 15-21.
- Kaplan, R. M. and Goldman, R. D. Stereotypes of college students toward the average man's and woman's attitudes toward women. Journal of Counseling Psychology, 1973, 20 (5), 459-462.
- Likert, R. A. Technique for the measurement of attitudes. Archives Psychologica, 1932, No. 140, 1-55.
- Loevinger, J. Objective tests as instruments of psychological theory. Psychological Reports, 1957, Monograph Supplement 9.
- Macdonald, A. P. Identification and measurement of multidimensional attitudes toward equality between the sexes. ETS Test Collection, 1975.
- Meier, H. Mother-centeredness and college youth attitudes towards equality for women: some empirical findings. Journal of Marriage and Family, 1972, 34 (1), 115-121.
- Nielson, J. C. and Doyle, P. T. Sex-role stereotypes of feminists and nonfeminists. Sex Roles, 1975, 1, 83-95.
- Osmond, M. W. and Martin, Y. P. Sex and sexism: a comparison of male and female sex-role attitudes. Journal of Marriage and the Family, 1975, 37 (4), 744-758.
- Parelius, A. P. Emerging sex-role attitudes, expectations, and strains among college women. Journal of Marriage and the Family, 1975, 37 (1), 146-153.

- Peterson, N. S. and Novick, M. R. Evaluation of some models for culture-fair selection. Journal of Educational Measurement, 1976, 13 (1), 3-29.
- Rosen, B. and Jerdee, T. Dual-career marital adjustment: potential effects of discriminatory managerial attitudes. Journal of Marriage and the Family, 1975, 37 (3), 565-572.
- Rosen, B., Jerdee, T. H. and Prestwich, T. L. Dual-career marital adjustment: potential effects of discriminatory managerial attitudes. Journal of Marriage and the Family, 1975, 37 (3), 565-572.
- Rosenkrantz, P., Bee, H., Vogel, S., and Broverman, I. Sex-role stereotypes and self-concepts in college students. Journal of Counseling and Clinical Psychology, 1968, 32 (3), 287-295.
- Shaw, M. E. and Wright, J. M. Scales for the Measurement of Attitudes. New York: McGraw-Hill, 1967.
- Spence, J. T. and Helmreich, R. Attitudes toward women scale: an objective instrument to measure attitudes toward the rights and roles of women in contemporary society. JSAS Catalog of Selected Documents in Psychology, 1972, 2, 66.
- Spence, J. T., Helmreich, R. and Stapp, J. Short Version of the Attitudes Toward Women Scale. Austin, Texas: University of Texas, 1975.
- Straus, M. A. Family Patterns Profile. Durham, New Hampshire: University of New Hampshire, 1965.
- Tharp, R. G. Dimensions of marriage roles. Marriage and Family Living, 1963, 25 (4), 389-404.
- Thorndike, R. L. Concepts of culture-fairness. Journal of Educational Measurement, 1971, 8, 63-70.
- Williams, J. E., and Bennett, S. M. The definition of sex stereotypes via the adjective check list. Sex Roles, 1975, 1 (4), 327-337.
- Zeldow, P. B. and Greenberg, R. P. The process of sex attribution. Sex Roles, 1975, 1 (2), 111-120.

THE TREDYFFRIN/EASTTOWN SEX FAIRNESS SURVEY

Developed by

Mark W. Blair
Joan L. Buttram
John F. Strandmark

RESEARCH FOR BETTER SCHOOLS, INC.
1700 Market Street
Philadelphia, Pennsylvania 19103

INSTRUCTIONS

People can assume a variety of roles in many settings. The Tredyffrin/Easttown Sex Fairness Survey has been designed to give you the opportunity to express your attitudes and opinions toward roles females and males can assume in home, educational, employment, and general social settings.

Please read each item carefully and think about it in terms of your own experience. The numbers on the answer sheet correspond to the numbers for the items. Be sure to fill in the correct space for each question. If you change your mind, erase the mark completely and then fill in your new answer.

USE THIS SCALE FOR ALL STATEMENTS

STRONGLY DISAGREE	DISAGREE	NOT SURE	AGREE	STRONGLY AGREE
[1]	[2]	[3]	[4]	[5]

The scale above should be used with all statements in the Tredyffrin/Easttown Sex Fairness Survey. For each statement, fill in the *one* number which shows the extent of your agreement or disagreement with the statement. Each statement can be answered "1", "2", "3", "4", or "5". If you fill in a higher number (4 or 5), it means that you agree with what the statement says. For example, a "5" means that you strongly agree with what the statement says while a "4" means that you just agree with the statement. If you fill in a lower number (1 or 2), it means that you disagree with what the statement says. For example, "1" means that you strongly disagree with what the statement says while a "2" means that you just disagree with the statement. A "3" means that you're not sure how much you agree or disagree. Remember, fill in only one number for each statement.

Some items depict situations which require either an action or an opinion from the characters portrayed. This action or opinion is the last sentence of the item. It is underlined. For these items, please indicate the extent to which you agree or disagree with the underlined sentence.

The development of the Tredyffrin/Easttown Sex Fairness Survey was funded, in part, by a subcontract awarded to Research for Better Schools, Inc. by the Tredyffrin/Easttown School District. Funds for the subcontract were part of the school district's grant from the Women's Educational Equity Act Program, United States Office of Education, U.S. Department of Health, Education, and Welfare, Grant Number G007806341, Marilyn E. Calabrese, Project Director. The purpose of the grant was the development and validation of the "Tredyffrin/Easttown Sex Fairness Program," a comprehensive model designed to increase the sex fairness of an entire school district. For additional information about the program contact the Tredyffrin/Easttown School District, Berwyn, Pa. 19312.

©Tredyffrin/Easttown School District

USE THIS SCALE FOR ALL STATEMENTS

STRONGLY DISAGREE	DISAGREE	NOT SURE	AGREE	STRONGLY AGREE
[1]	[2]	[3]	[4]	[5]

1. The idea of women boxing, whether amateur or professional, is disgusting.
2. When entering a room, it is rude for a man to precede a woman.
3. Mrs. Eskovich, sixth grade teacher, asks her class for volunteers to run the movie projector. John and Emily both raise their hands. She selects John because the projector is heavy and must be moved.
4. Ms. Evans is an effective and energetic salesperson. She has applied for a position as sales manager, a job that involves supervisory responsibility over a predominantly male sales force. Pressure is mounting to give the job to a male co-worker on the basis that he would command more respect than Ms. Evans. After much deliberation, the company decides to hire Ms. Evans for the position.
5. Certain jobs should be closed to women because of the physical requirements.
6. The husband should assume more responsibility than the wife for the family's financial plans.
7. Boys should not be allowed to take fashion design courses with girls because they won't take the courses seriously.
8. A woman cannot be fulfilled until she marries and has a family.
9. It is against a man's nature to mend clothes.
10. Dr. and Mrs. Brady have two preschool children. Mrs. B. would like to start working. Her husband, a physician, is strongly against it. He thinks it would be best for the children if she remains at home until they enter school.
11. Most women are perfectly capable of combining a career and a marriage with children.
12. Mr. H. is president of a large apparel firm which customarily assigns two sales persons to travel together in each territory. Mr. H. has rejected the application of Maryann V. as a salesperson because he thinks it would not be right for a woman to be on the road with a man.
13. Girls should not take metal working classes because the machinery is dangerous.
14. The employment of women jeopardizes the institution of the family.
15. The talk about women being an oppressed group in American society is ridiculous.
16. Females have more sympathy with the problems of the poor and disadvantaged than males.
17. Male students tend to daydream in class as much as female students.
18. Male teachers can provide emotional support for their students as well as female teachers.
19. The husband ought to have the main say-so in family matters.
20. It is appropriate for male students to take courses teaching basic homemaking skills.
21. Amos and Elvira are 17 and 18 respectively. Their parents have saved enough money to send one of the children to college. They decide to send Amos because he will eventually have to support his own family.
22. Boys in school are more aggressive about getting good grades than girls.
23. Male students should be allowed to try out for the cheerleading squad.
24. Males have no business being airline cabin attendants.
25. Girls should have the opportunity to develop competence with tools and machines.
26. Men are more realistic than women in estimating the time necessary to complete tasks.
27. I would allow my son to take a course in sewing.
28. For her fifth grade project, Mrs. B's daughter wants to learn how a tractor operates. Mrs. B. tries to encourage her to select a project that is more fitting for a girl.

PLEASE GO ON TO THE NEXT PAGE

USE THIS SCALE FOR ALL STATEMENTS

STRONGLY DISAGREE	DISAGREE	NOT SURE	AGREE	STRONGLY AGREE
(1)	(2)	(3)	(4)	(5)

29. Women with preschool children should stay with their children rather than work.
30. Girls are as good in classroom discussions as boys.
31. Girls are as attentive in class as boys.
32. Nathan S., 26 years old, has extremely dry skin. He hears that regular facials often alleviate his problem. To this end, he buys the products necessary and begins to give himself a facial on a weekly basis.
33. Male students are as artistic as female students.
34. At parties, women are generally as talkative as men.
35. One of the most important things a mother can do is prepare her daughter for the duties of being a wife.
36. A woman's emotional nature frequently compromises her ability to discipline her children.
37. A woman does not need as much education as a man.
38. Men are more daring than women when driving a car.
39. Female teachers are more cheerful than male teachers.
40. Female students have as much ability as male students for learning scientific material.
41. As long as he is interested, a boy should be encouraged to take classical ballet lessons.
42. Pauline and Larry have been dating for six months. Pauline is anxious to see a new movie and asks Larry to join her. At the box office, Larry only buys a ticket for himself, expecting Pauline to pay her own way.
43. Bill and Evan are first grade students. During a play period they take out some kitchen toys and begin 'making lunch.' One of the team teachers approaches the boys and suggests they would enjoy playing with tinker toys more. After class the teachers discuss the incident. The second teacher disagrees with her colleague's action. In her view, the boys should not be discouraged from playing with kitchen toys.
44. The son who takes after his father is more likely to be an individualist than the son who takes after his mother.
45. Taking a sewing course would be a waste of time for a male student.
46. Men are generally too disorderly to take responsibility for housecleaning activities.
47. Boys have better study habits than girls.
48. Girls don't understand enough about tools to really profit from a woodworking class.
49. The Home Economics Department of Paseo High School has been under pressure to open their courses to boys. In response, they have developed a course called 'Bachelor Cooking.' Designed especially for boys, it treats such subjects as barbecue, salad making and easy-to-prepare meals. The school has decided to include the course in their catalogue.
50. Mr. Thomas is evaluating job applications for a position that involves considerable travel. Two individuals, a man and a woman, are well-qualified for the job. Both are parents of school-aged children. Mr. T. decides not to hire the woman because of potential conflict between job responsibilities and her family.
51. Mr. Farmer would like to spend more time with his children. He suggests to his wife that she get a part-time job. He would do the same. Mrs. Farmer opposes the plan saying it is her husband's responsibility to provide financial support for the family.
52. Basically, men are not caring enough to handle the responsibility of child rearing.
53. Ann and Jane are college roommates. Jane now makes it a habit of asking out attractive men she sees on campus. Ann disagrees with this approach and tells Jane she will develop a bad reputation for herself if she continues being so aggressive.

PLEASE GO ON TO THE NEXT PAGE

USE THIS SCALE FOR ALL STATEMENTS

STRONGLY DISAGREE	DISAGREE	NOT SURE	AGREE	STRONGLY AGREE
[1]	[2]	[3]	[4]	[5]

54. It is a poor reflection on a husband if his wife works.
55. Men should not express weakness in public.
56. Mr. and Mrs. Yates work and have two preschool children. Mr. Yates is a traveling salesperson. Mrs. Y's company offers her a promotion which will also entail considerable travel. Mr. Y. does not want his wife to accept the promotion. He believes one parent should always remain home with the children. Mrs. Y. accepts the promotion convinced they will be able to make satisfactory child-care arrangements.
57. Men complain as much as women about their jobs.
58. By nature women are happiest when they are making a home.
59. Men should have final authority over their children because they are more objective than women.
60. The husband should be in charge of repairs around the house.
61. It is all right for women to participate in local politics, but they should not hold the higher offices in government.
62. Male supervisors are as forceful as females in dealing with disciplinary problems on the job.
63. In a dating situation, men are as affectionate as women.
64. It is disrespectful for a man to swear in the presence of a woman.
65. Girls should have the same opportunity as boys to play on little league baseball teams.
66. When both parents work, the mother should be the one to stay home with a child who is ill.
67. Women are as rational as men when it comes to selecting a mate for life.
68. Female students have less self confidence than male students in public speaking.
69. The Cooperative Education Program places selected 11th and 12th grade girls in secretarial/clerical positions for half the day. Mr. G., the co-op teacher, has refused to let James F. and Leroy J. into the program claiming that boys would only be taking the course to get out of school early.
70. It is part of a man's responsibility to provide transportation for a date.
71. I would not fly on a commercial airline if I knew it were piloted by a female.
72. A married woman should give up her job whenever it intrudes on her husband's career.
73. Boys are more disruptive in class than girls.
74. House decorating should be a wife's responsibility because women are more sensitive to detail than men.
75. I don't see any reason for girls to study drafting.
76. Women are better at child rearing because they are more caring than men.
77. Male students exhibit less emotion than female students after receiving report cards.
78. By nature, men are more inclined to extramarital affairs than women.
79. I would not be concerned if a woman was appointed President of General Motors.
80. A woman should be less aggressive than a man in a dating situation.
81. House cleaning is more proper work for women than mowing the lawn.
82. Jerry T. is a senior in high school. He wishes to become a nurse. His counselor tries to discourage Jerry, suggesting that for a male a job as a paramedic would be more appropriate. Jerry ignores the advice of his counselor and continues with his career plans.
83. I would permit surgery to be performed on me by a woman doctor.
84. Women don't have the same endurance as men to do heavy yard work.

ASSESSMENT OF ATTITUDE TOWARD GENDER

INSTRUCTIONS

This questionnaire is designed to measure the meanings of two concepts, FEMALE and MALE, to various people by having them judge them against a series of descriptive scales. In completing this questionnaire, please make your judgments on the basis of what these concepts mean to you. At the top of each page you will find one of the two concepts to be judged and beneath it a set of scales. You are to rate the concept on each of these scales in order.

Here is how you are to use these scales:

If you feel that the concept at the top of the page is *very closely* related to one end of the scale, you should circle as follows:

fair ● ● ● ● ● ● ● unfair
fair ● ● ● ● ● ● ● unfair

If you feel that the concept is *quite closely related* to one or the other end of the scale (but not extremely), you should circle as follows:

strong ● ● ● ● ● ● weak
strong ● ● ● ● ● ● weak

If the concept seems *only slightly related* to one side as opposed to the other side (but is not really neutral), then you should circle as follows:

passive ● ● ● ● ● ● active
passive ● ● ● ● ● ● active

The direction toward which you circle depends upon which of the two ends of the scale seem most characteristic of the concept you're judging.

If you consider the concept to be *neutral* on the scale, both sides of the scale *equally associated* with the concept, or if the scale is *completely irrelevant* to the concept, then you should circle the middle dot:

safe ● ● ● ● ● ● dangerous

IMPORTANT:

- (1) Be sure to make a circle for every concept – do not omit any.
- (2) Never mark more than one circle for a single scale.

Sometimes you may feel as though you've had the same item before. This will not be the case, so do not look back and forth through the items. Do not try to remember how you checked similar items earlier. Make each item a separate and independent judgment. Work at fairly high speed throughout. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items, that we want. On the other hand, please do not be careless, because we want your true impressions.

FEMALE

	1	2	3	4	5	6	7	
1. good	•	•	•	•	•	•	•	bad
2. kind	•	•	•	•	•	•	•	cruel
3. friendly	•	•	•	•	•	•	•	unfriendly
4. unsuccessful	•	•	•	•	•	•	•	successful
5. unfair	•	•	•	•	•	•	•	fair
6. disreputable	•	•	•	•	•	•	•	reputable
7. wise	•	•	•	•	•	•	•	foolish
8. lenient	•	•	•	•	•	•	•	severe
9. weak	•	•	•	•	•	•	•	strong
10. yielding	•	•	•	•	•	•	•	tenacious
11. dominant	•	•	•	•	•	•	•	submissive
12. free	•	•	•	•	•	•	•	constrained
13. restive	•	•	•	•	•	•	•	cooperative
14. active	•	•	•	•	•	•	•	passive
15. slow	•	•	•	•	•	•	•	fast
16. excitable	•	•	•	•	•	•	•	calm
17. cautious	•	•	•	•	•	•	•	rash
18. stable	•	•	•	•	•	•	•	changeable
19. dynamic	•	•	•	•	•	•	•	static
20. cool	•	•	•	•	•	•	•	warm
21. awkward	•	•	•	•	•	•	•	poised
22. modest	•	•	•	•	•	•	•	boastful
23. insensitive	•	•	•	•	•	•	•	sensitive
24. witty	•	•	•	•	•	•	•	humorless
25. irrational	•	•	•	•	•	•	•	rational

MALE

	1	2	3	4	5	6	7	
1. good	•	•	•	•	•	•	•	bad
2. kind	•	•	•	•	•	•	•	cruel
3. friendly	•	•	•	•	•	•	•	unfriendly
4. unsuccessful	•	•	•	•	•	•	•	successful
5. unfair	•	•	•	•	•	•	•	fair
6. disreputable	•	•	•	•	•	•	•	reputable
7. wise	•	•	•	•	•	•	•	foolish
8. lenient	•	•	•	•	•	•	•	severe
9. weak	•	•	•	•	•	•	•	strong
10. yielding	•	•	•	•	•	•	•	tenacious
11. dominant	•	•	•	•	•	•	•	submissive
12. free	•	•	•	•	•	•	•	constrained
13. restive	•	•	•	•	•	•	•	cooperative
14. active	•	•	•	•	•	•	•	passive
15. slow	•	•	•	•	•	•	•	fast
16. excitable	•	•	•	•	•	•	•	calm
17. cautious	•	•	•	•	•	•	•	rash
18. stable	•	•	•	•	•	•	•	changeable
19. dynamic	•	•	•	•	•	•	•	static
20. cool	•	•	•	•	•	•	•	warm
21. awkward	•	•	•	•	•	•	•	poised
22. modest	•	•	•	•	•	•	•	boastful
23. insensitive	•	•	•	•	•	•	•	sensitive
24. witty	•	•	•	•	•	•	•	humorless
25. irrational	•	•	•	•	•	•	•	rational

