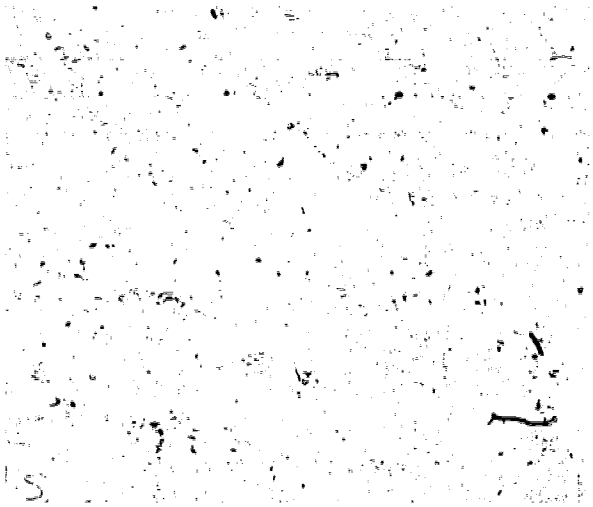

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ABSTRACT

A project was conducted to develop and field test a practical model, usable by vocational educators, which would assess the extent to which sex bias and sex stereotyping exist in Florida's vocational education programs. The needs assessment model development phase of this study, accomplished through literature reviews, resulted in the development of a needs assessment model consisting of seven procedural steps. The model provides flexibility for the assessment of many varied vocational education needs. The field test was conducted through distribution of a survey instrument developed and validated using methods described in the model. A panel of experts was used to validate survey instrument goal statements identified as being areas in which sex bias and sex stereotyping might be found within vocational education. The instrument was designed specifically for vocational instructional personnel. The sample was drawn from area vocational-technical centers in Florida. The study has provided a flexible needs assessment model, a survey questionnaire designed for instructional personnel, and data tabulation and treatment methods usable in needs assessment. (Author/KC)

FINAL REPORT

Project No VTAD 7-1C12

From 5/15/78 to 9/30/78

Development of A Model To Identify Vocational Education Needs Associated With Sex-Role Stereotype Within Special Target Groups

Florida State University
Department of Curriculum and Instruction
Tallahassee, Florida 32306

Project Director W. Hugh Hinely

The project reported herein was conducted pursuant to a grant from the Division of Vocational Education, Florida Department of Education. Contractors undertaking such projects are encouraged to express freely their professional judgements in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent the official position or policy of the Florida Department of Education.

Abstract

The purpose of this study was to develop and field test a practical model, usable by vocational educators, which will assess the extent to which sex bias and sex stereotyping exist in Florida's vocational education programs. The needs assessment model development phase of this study, accomplished through literature reviews, resulted in the development of a seven procedural step needs assessment model. The model provides flexibility for the assessment of many varied vocational education needs. The field test was conducted through distribution of a survey instrument developed and validated using methods described in the model. A panel of experts was used to validate survey instrument goal statements identified and placed within six generic categories. The categories were identified as being areas in which sex bias and sex stereotyping might be found within vocational education. The instrument was designed specifically for vocational instructional personnel. The sample was drawn from area vocational-technical centers in Florida. The study has provided a flexible needs assessment model, a survey questionnaire designed for instructional personnel and data tabulation and treatment methods usable in needs assessments.

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CHAPTER I

INTRODUCTION TO THE STUDY

Recent federal legislation (U.S. 92nd Congress, 1972; U.S. 93rd Congress, 1974; U.S. 94th Congress, 1976) contains provisions which mandate that sex stereotyping, sex bias, and sex discrimination be eliminated from educational programs. Title IX of the Education Amendments of 1972, Prohibition of Sex Discrimination, states:

> No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance.

Title IX of Public Law 92-318 covers in some section of the law virtually every public college, university, elementary, secondary, and vocational school. As a result of this law, vocational schools may not limit enrollment of members of one sex because of limited availability of job opportunities for members of that sex. Further, "a school may not assist a discriminatory employer by referral of students or any other manner" (Verheyden-Hilliard, 1976, p. 41).

The Women's Educational Equity Act (WEEA) was passed as part of the Special Projects Act of the Educational Amendments of 1974, Public Law 93-380. The WEEA authorizes the support of activities in every area of education for the purposes of providing educational equity for

women. The activities supported are ones which target all areas of education which perpetuate sex bias. Applicable to this study are the activities designed to expand and improve the educational programs and activities for women in vocational education.

The passage of the Educational Amendments of 1976, Public Law 94-482-Title II, brought the mandate of equity education to vocational education. Pursuant to the enactment of Public Law 94-482, all states developed and added policies and procedures to their state plans for vocational education to assure equal access to vocational programs by both men and women. The goals of the Division of Vocational Education of the Florida State Department of Education pertaining to sex bias, sex stereotyping, and sex discrimination are outlined as policies, procedures, and actions to be taken by the Division in the Florida State Plan for Vocational Education Under Title II of the Vocational Education Amendments of 1976. As specified in Public Law 94-482, full-time personnel have been assigned to issues involving equal access and opportunities, sex bias, sex discrimination, and sex stereotyping.

One of the goals in the Florida State Plan involves "data collection, analysis, review and dissemination . . . as needs and uses are determined" (Division of Vocational Education, 1978, p. 31). Specific objectives associated with this goal state that personnel from the Division "will assist local agencies in assessing needs and correcting problems identified" (p. 31); will give priority to needs as they are determined for funding workshops and other projects; and will give consideration to projects providing inservice training as needs are assessed.

The Florida State Plan, however, does not provide a method for planners and other personnel to use in meeting the goals and objectives. The failure to include methodology along with policies and procedures is not surprising, because mandates always tell what must be done, but seldom suggest methods for accomplishment of objectives.

Statement of the Problem

During the past decade there has been a concerted effort by educational planners to develop conceptual needs assessment models. These models have been designed to be used as the beginnings of systematic educational planning processes. A formal assessment of needs is rapidly coming to be viewed as an essential information input to educational management at all levels, from the classroom to national programs.

Needs assessment models developed to date have generally incorporated four common phases of activities as outlined by Klein (1971):

1. Identifying a broad range of possible goals,
2. Ranking the relative importance of the goals,
3. Identifying discrepancies between desired and actual performance,
4. Setting priorities for action.

Although these four activities phases seem to be common to most needs assessment models, there are important procedural differences in various models. These procedural differences have allowed some popular methods to be very easy to perform, but provide only superficial information at best. Other methods which are very time consuming and

difficult to manage may provide more reliable information for decision making (Witkin, 1975b).

Despite the proliferation of theoretical systems-based planning models, no direct method of gathering data immediately useful to educational planners on the needs associated with sex role stereotyping in vocational education for a given area appears to exist. Thus, the general problem addressed by this study is the development of a needs assessment model, based on contemporary theory, yet possessing the conceptual simplicity and applicability necessary for usage by planning practitioners at all educational levels. The specific problem identified is that there is no practical model/methodology extant that will accurately assess the needs relative to sex role stereotype and sex bias in Florida's vocational education programs.

Need for the Study

The inability to obtain usable information for assessing current, intermediate, and long-range needs associated with sex role stereotyping and sex bias has limited vocational education's ability to carry out positive programs for change in this area. Change in education is inevitable when considering the pressures by the government, communities, students, and the profession itself. Raymond Melton (1977) states that "a foundation and a direction for change, based on identified and documented needs, has to be established before strategies for problem resolution are employed" (p. 36). Further support is given to this position by F. W. English (1975) when he states that "a formal needs

assessment of the problems of a school should precede any . . . intervention which is not of an immediate crisis nature" (p. 47). Responsible vocational educational planning, therefore, must grow out of a solid data base of accurate information if such planning efforts are to meet present and future needs.

Thus, state and local planners of vocational education programs are faced with the task of complying with Public Law 94-482 through policies and procedures outlined in the Florida State Plan. This task is complicated by the failure of the Florida State Plan to provide guidelines through which compliance could be reached. The use of needs assessment procedures as preparation for the planning of programs to eliminate sex bias and sex stereotyping in vocational education must be preceded by the translation of theoretical planning models into viable tools for local action.

It is anticipated that this study will provide vocational education policy decision makers in Florida with a usable tool for the identification of needs with reference to sex role stereotypes and sex bias in vocational education programs. Thus, the need for the study has stemmed from theoretical planning considerations, but its implementation is the result of a very practical response to a legislative mandate as interpreted by the Florida State Department of Education, Division of Vocational Education.

Purpose and Objectives

The overall purpose of this study is the development and field testing of a model, based on planning theory, which can be used to assess the needs with reference to sex role stereotype and sex bias in vocational education programs in Florida. Implementation of the needs assessment model will provide educational planners with data necessary for the establishment of goals, objectives, and priorities for programs designed to eliminate sex bias and sex stereotyping in vocational education in Florida.

The specific objectives for the study will be:

1. To develop a practical model/methodology, usable by vocational educators, which will assess the extent to which sex bias and sex role stereotyping exist in Florida's vocational education programs.
2. To develop a needs assessment instrument designed for vocational education instructional personnel.
3. To field test the model and test instrument in selected locations.

Definitions of Important Terms

1. Diffusion: the process by which new processes, data, techniques, or products come to be adopted by persons and organizations other than those which developed those items initially (Briggs, 1977, p. xvi).

2. Front-end analysis: the accomplishment of the early stages of the design process, such as analysis of needs, goals, and objectives (Briggs, 1977, p. xvi).
3. Goal: a broad statement of what "ought to be."
4. Model: a set of coherent procedures for carrying out a process, such as needs assessment.
5. Need: the measurable discrepancy between "where we are now" and "where we should be" (Kaufman, 1972, p. 8).
6. Needs assessment: the formal process for identifying outcome discrepancies (Kaufman, 1972, p. 8).
7. Planning practitioners: educational planners from all levels of educational systems including state department personnel, district level supervisory and administrative personnel, local school administrators, and instructional personnel.
8. Sex bias: behaviors resulting from the assumption that one sex is superior to the other (U.S. Office of Education, 1977).
9. Sex discrimination: any action which limits or denies a person or group of persons opportunities, privileges, roles, or rewards on the basis of their sex (U.S. Office of Education, 1977).
10. Sex stereotyping: attributing behaviors, abilities, interests, values, and roles to a person or group of persons on the basis of their sex (U.S. Office of Education, 1977).
11. System approach: a process by which needs are identified, problems are selected, requirements for problem solution are identified, solutions are selected from alternatives, methods and means are obtained and implemented, results are evaluated, and required

revisions to all or part of the system are made so that the needs are eliminated (Kaufman, 1972, p. 2).

Assumptions

For the purposes of this study, the following assumptions will be made:

1. Needs do exist in vocational education programs with regard to sex stereotyping and sex bias that can be identified and measured either directly or indirectly. The identified needs can be used to form a legitimate base from which to develop programs directed toward need satisfaction.
2. Information at the outset of the planning process makes a critical contribution to and constitutes an important determinant of the quality of the entire educational planning process.

CHAPTER II

REVIEW OF RELATED LITERATURE

Planning Models

The literature is replete with systems models upon which the planning process can be based. In his review of planning literature, Tempkin (1970) discussed and evaluated several planning models. He also included an extensive annotated bibliography. In addition to Tempkin, many other writers have produced planning models. Models reviewed and found to be designed specifically for education in general include Correa and Adam's (1972) model for studying educational planning, Fincher's (1972) collection of models and paradigms in higher education, the system models of Jamison and McLeod-Gertin (1969) and Kaufman (1972, 1967a), and Estes' (1977) research development approach to improving urban education.

Planning models found to have specific application to vocational and occupational education were Alger's (1967) model for planning area vocational programs, Arnold & McNamara's (1971) system approach to state and local vocational education program planning, and regional planning system models for vocational and occupational education by McNamara (1971) and McNamara, Smink, & Lowell (1971).

The fact that there is an abundance of planning models does not mean that there are major differences in these models. While models may differ in terminology and the extent to which planning objectives are analyzed, most models offer at least a three-stage process which would seek to answer such questions as "Where are we now?"; "Where are we going?"; and "How do we expect to get there?" Kaufman (1972) states that planning should include the following six elements:

1. Identifying and documenting needs.
2. Selecting among the documented needs those of sufficient priority for action.
3. Detailed specification of outcomes or accomplishments to be achieved for each selected need.
4. Identification of requirements for meeting each selected need including specifications for eliminating the need by problem solving.
5. A sequence of outcomes required to meet the identified needs.
6. Identification of possible alternative strategies and tools for accomplishing each requirement for meeting each need, including a list of the advantages and disadvantages of each set of strategies and tools. (p. 6)

All the planning models reviewed began with some type of front-end analysis. This analysis of needs is more formally stated as a process involving the assessment of the current state of affairs (including a position audit), a formulation of the desired state (based on the

identified needs), and, finally, program implementation (including allocation of resources for goal attainment and program evaluation).

A generic planning model, typical of those found in the literature is shown in Figure 1. While the basic process is conceptually the same

Insert Figure 1 about here

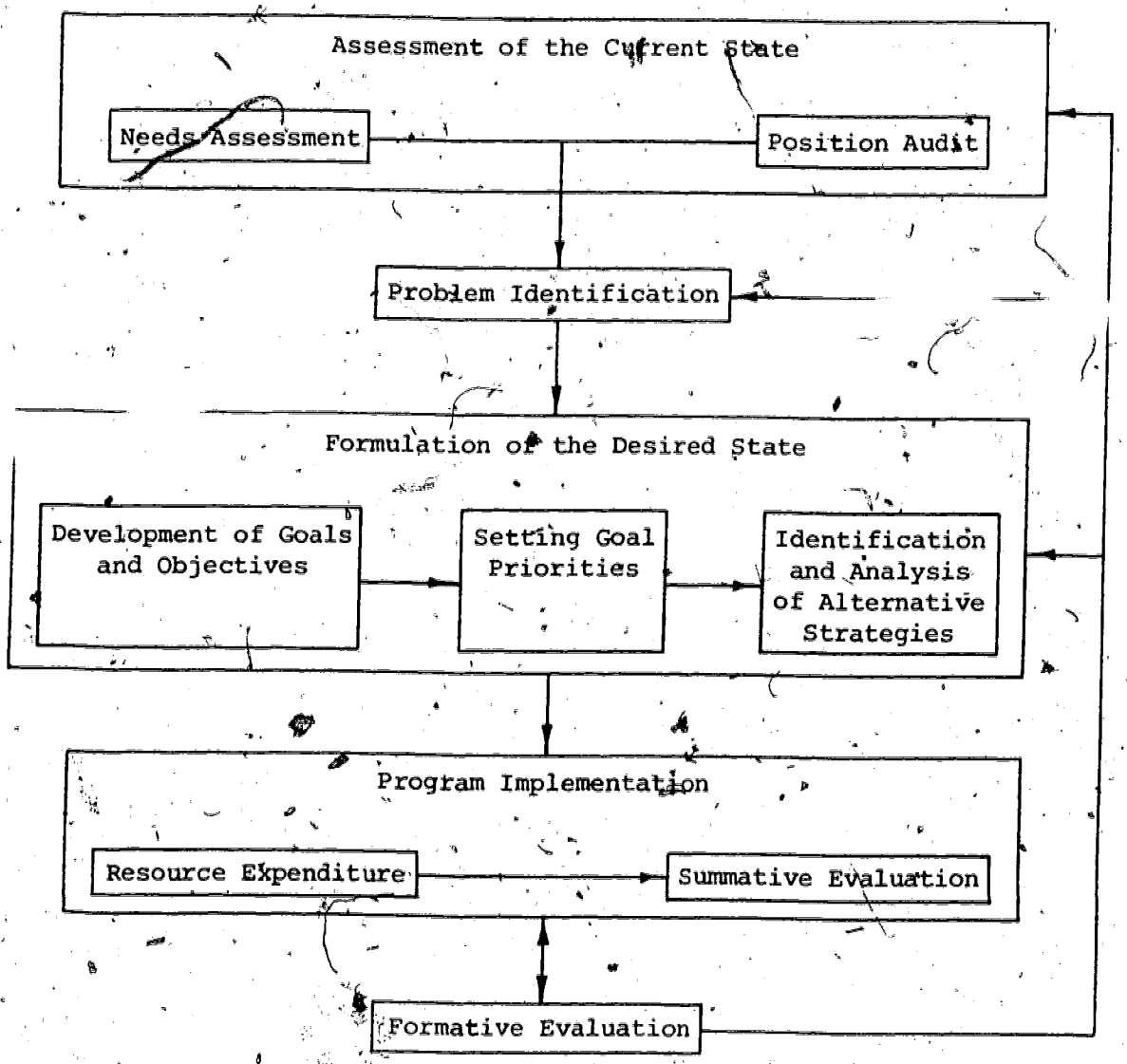
as outlined above, some researchers might arrange the steps in slightly different ways (as in a deductive model) to accomodate different planning situations.

Needs Assessment

The major focus of this project, however, is not on the complete planning process. Rather, it is on the development and testing of a procedure to be used for the identification of needs as the important initial phase of the planning process. The literature on needs assessment has been quite prolific during the past five years. The use of needs assessment as a prerequisite to program planning in education seems to be in vogue.

The importance of needs assessment as a tool in educational planning has been discussed by several writers. Berrie (1976) and Witkin (1977) acknowledge the value of needs assessment in educational planning activities such as: short-range curricular or institutional change; long-range master planning; and involving parents and community in setting goals and priorities for schools. Sweigert (1971) proposes the use of needs assessment as a tool for the achievement of relevancy in education

Figure 1. An Inductive Generic Planning Model



through student, parent, and community involvement in the process. Benefits to the organization and success of short- and long-range planning are pointed out by Phillips (1975) and Tucker (1975). Attitudinal, conceptual, organizational, and political problems which might be encountered by educational planning practitioners in the use of needs assessment are discussed by Sarthory (1977). These problems, however, do not outweigh the benefits of this "management tool which can identify gaps between organizational ideal and real as well as suggest staffing patterns, program emphases, and resource allocations designed to close the gaps" (Sarthory, 1977, p. 24).

Needs assessment models have been developed and projects have been undertaken in many states and for virtually all levels of education. The vastness of the literature is substantiated by Pyatte, Knight, Breivogel, and Durall's (1976) 158 entry annotated bibliography of needs assessment materials and the Abstracts of Selected Needs Assessment Models compiled by the Alameda County School Department. These works are of great value to the educational planner as overviews of a broad range of needs assessment materials.

An acknowledged leader in educational planning, Kaufman (1972), has agreed with Sweigert (1971) that the first and most important step in the planning process is needs assessment. Kaufman's (1972) system approach planning model is built around needs assessment, yet he states that:

> It would be inappropriate to list a "hard and fast" process along with tools for doing a needs assessment, for the procedures are too new and are constantly

> evolving. Tools and techniques for needs assessment must be selected, evolved, or invented based on the unique conditions and circumstances of each educational context.
>
> The field of needs assessment is indeed a fledgling one. Many models and procedures are being tried, modified and reapplied. Professionals specializing in the difficult area emphasize the tentative nature of any models or procedures extant. This presentation is no exception, for we simply do not know very much about this very important subject. However, rather than skipping it because there are no cast-in-concrete how-to-do-it prescriptions, a better choice would be to design one (perhaps using the systems analysis tools described in this book) to fit individual educational requirements. (pp. 45-46)

The needs assessment process Kaufman (1972) proposes is a systems method necessary for defining educational problems, for "if we attempt to solve problems poorly defined, we are faced with (1) an infinite number of possible solutions, and/or (2) a situation in which we treat only the symptoms and never really solve the problems" (p. 6). Kaufman's contention that to do-it-yourself is the way to design a needs assessment for a particular educational setting has been supported by reviewing other needs assessment materials in the literature.

A review of needs assessment literature has revealed an absence of a needs assessment model designed to identify needs associated with sex

bias and/or sex role stereotyping in vocational education or any other phase of educational endeavor. Therefore, the literature review has been directed into three areas. First, needs assessment model development projects were identified and reviewed in order to facilitate development of a process model based on contemporary theory. Second, existing needs assessment projects in education were studied in order to identify a process useful in this situation. Third, literature proposing methods and projects designed to eliminate sex bias and sex role stereotyping from education in general and vocational education in particular were studied in order to facilitate instrumentation to be used in the data gathering phase of the needs assessment.

Needs Assessment Model Development

Used extensively in this literature review were the Abstracts of Selected Needs Assessment Models compiled by the Alameda County School Department (n.d.), the annotated bibliography of needs assessment materials by Pyatte et al. (1976), and Witkin's (1975b, 1977) analyses of needs assessment kits, models, and techniques. While the abstracts and annotated bibliographies proved to be invaluable in the search for needs assessment model development projects, Witkin (1975b, 1977) provides complete descriptions of and contrasts a broad spectrum of models. Various types of needs assessment procedures such as ratings by scales, card sorts, budget allocations, paired-weighting procedures, and magnitude estimation scaling are also described and contrasted for use in different situations. Analyses of needs assessment kits designed by educational personnel and private industry complete with a list of many publishers of these kits are also provided. Witkin (1975b) completes

her analysis with a lengthy bibliography of useful needs assessment materials.

Contrasting and classification of needs assessments for varying purposes has been undertaken by Kaufman (1976b, 1977a, 1977b) and Andrews (1977) also. The taxonomy of needs assessments presented by Kaufman (1977b) provides the system approach functions, possibly characteristics, and possible assumption bases of the six basic needs assessment types; Alpha, Beta, Gamma, Delta, Epsilon, and Zeta. Since there is no right or wrong needs assessment mode, only considerations as to appropriateness, it is suggested that all possible needs assessment models could be placed in one of these six classifications. Kaufman (1977a) further classifies needs assessments as either internal or external. Internal needs assessments, the way it is usually done, view problems only from the perspective of the organization involved with the self study. An external needs assessment, on the other hand, would provide a functional planning device. However, only the Alpha classification is considered external in nature and is almost never used. Andrews (1977) has outlined the six Kaufman classifications according to the specific need each mode is intended to identify.

Several states, agencies, and researchers have developed needs assessment models or have undertaken needs assessment projects and offered these projects as models. These models range from institutional models (e.g., Educational Testing Service [ETS], 1972; Hamilton, 1972) to models for statewide application (e.g., Coffing & Hutchison, 1974; Gustafson & Severance, 1976; Jones & Sommers, 1975; Knight, 1977a, 1977b; Ohio Department of Education, n.d.). Both ETS (1972) and Hamilton (1972)

provide survey instruments to be used in the identification of needs and goals in elementary and secondary schools. Coffing & Hutchinson (1974) and Jones & Sommers (1975) [redacted] rules, procedures, and objectives for needs assessment systems with broad educational applications. These authors have provided procedures which might be adapted to state, district, or institutional planning activities. More detailed yet still flexible needs assessment guides have been produced by the New Hampshire and Ohio State Departments of Education (Gustafson & Severance, 1976; Ohio Department of Education, n.d.). Gustafson & Severance's (1976) needs assessment handbook is specifically for vocational education planning providing procedures for needs assessment planning, job market analysis, existing program analysis, population analysis, resource analysis, and program plan development. The Ohio Needs Assessment Guidelines gives general procedures for conducting needs assessment activities, developing a survey instrument, and analyzing data. A more comprehensive system model for needs assessment procedures was produced under the direction of M. R. Knight (1977b). This systematic strategy for conducting a needs assessment is one of a series of 12 booklets produced by the Florida Needs Assessment Development Project (Knight, 1977a). This project has provided not only an overview on how to do a needs assessment but also technical manuals on identifying needs, data collection, analyzing, interpreting, and reporting data, measurement, and sampling in needs assessment. The procedures and methods suggested by the writers mentioned above with the exception of Gustafson & Severance (1976) are all intended for use in the general areas of instruction or student needs.

Needs assessment models (Beatty, 1976; Dallas Independent School District, 1973; Phi Delta Kappa, 1972; Rookey, 1976; Witkin, 1975a) designed predominantly for district wide use were found to have similar basic steps in the overall process. These same studies, however, exhibited different techniques for the accomplishment of these steps. Similar findings were noted after examination of models designed for higher education (Alfaro, McDermott, & West, 1974; Morgan & Feldman, 1977; San Diego Community College, 1975).

Educational Needs Assessment Projects

Needs assessment projects, completed and ongoing, were examined in order to gain information about data gathering techniques, sampling problems, measurement techniques, and data presentation methods. Projects designed for all levels of education were identified and reviewed.

Recent educational needs assessment projects used in the area of public secondary education include Bowser & Robinson's (1977) study of vocational needs for special education and Melton's (1977) presentation of three case studies of needs assessment in public schools. The three case studies provided general outlines of procedures and alternatives for (1) a district wide assessment; (2) a school-based assessment; and (3) a program or project assessment.

Community surveys classified as needs assessments include the broad educational goals identification project in Atlanta, Georgia (Swiegert, 1973). This project included surveys of students, educators, and community leaders in an attempt to identify the educational needs of the city through 1985. Koble (1976) has outlined and briefly explained a project undertaken by the Center for Vocational Education at The Ohio

State University. This project identified vocational education program needs in 13 of the largest urban areas in the United States. Needs assessment projects designed for use in higher education include Murphy & Martin's (1977) description of a small college's effort to identify continuing education needs as an initial step in implementing a competency based education program. The Division of Community Colleges in Florida has completed a project (Tucker, 1972) useful as a model for a multi-campus or multi-institutional higher education needs assessment.

State and regional needs assessment management and procedural techniques have been described in detail by Knight (1977b), Porter (1975), and Quality Education Program Study (QEPS) (1971). These research projects provided useful information on the workings of the needs assessment system, management duties, resource allocation, and data analysis.

Theoretical and technical aspects of many of the studies discussed will be of great value in this developmental project although none of the projects reviewed could be used in its entirety. Thus, the do-it-yourself method of needs assessment advocated by Kaufman (1972) is applicable in spite of the vast array of models extant.

Sex Bias and Sex Stereotype Literature

The problems related to sex bias and sex role stereotyping in education are many and varied. The literature search in the areas of sex discrimination, sex bias, and sex role stereotyping in education and employment has provided a wealth of information about problems in all areas of education. The vastness of the literature is indicated by the literature review and 1000 item bibliography on sex discrimination in

education prepared by Lockheed, Ebstron, & Harris (1977). Evidences of discrimination can be found in access to education, mobility within the system, inequality of live role models, reading materials, and vocational interest tests (Lockheed et al., 1977). These problems of discrimination in education affect men as well as women. A two sided effort must be undertaken to ensure educational equity for both sexes. First, Gordon (1976) suggests that legislation is designed to provide fairness of treatment; equal protection; and more equal distribution of resources. Second, social justice and adjustments to educational methods providing more equality for individual learners must accompany the legislation to help ensure educational equity. The social aspects of bias and discrimination in education appear to be lagging behind the legislation. "Most obstacles to full equality in education exist in peoples' minds, in the insubstantial, diaphanous forms of prejudice, traditional beliefs, and cultural stereotypes" (McGrath, 1976, p. 37).

Studies (Astin, Harway, & McNamara, 1976a, 1976b, Dunkel & Sandler, 1975; Lockheed et al., 1977; Pfiffner, 1972) related to access to education have presented the following institutional practices that act as barriers to women's entry into post-secondary education:

1. Counseling practices, information materials, and interest tests;
2. Recruitment practices;
3. Admission policies;
4. Availability of financial aid;
5. Special programs and services;
6. Lack of female role models.

Methods of identification and correction of these barriers and other examples of sex stereotyping in education have been presented by Allen, Hope, Jones, Thompson, & Whitt (1976), Matthews & McCune (1976), Pennsylvania Department of Education (1977), and Vetter-Hilliard (1976). The identification of problems related to sex discrimination, sex bias, and sex stereotyping can be accomplished through the use of Matthews & McCune's (1976) self-evaluation plan or Pennsylvania's (1977) self-study guide to sexism in schools. The correction of problems identified might take the form of one or several of the following strategies (Allen et al., 1976):

1. Change course title;
2. Eliminate bias in catalogues and brochures;
3. Rearrange physical facilities;
4. Actively recruit students for non-traditional occupations;
5. Increase the male/female ratio on the advisory councils;
6. Provide inservice education for all school staff;
7. Provide increased female representation in educational leadership.

Studies (Perkins, 1975; Steele, 1974; Steiger, 1974; Steiger & Cooper, 1975) providing detailed information about women in vocational education have shown that sex bias and sex stereotyping do exist to a great extent in vocational education. As presently organized, American vocational education programs promote and perpetuate sex discrimination in employment (Hulbert, 1976; Perkins, 1975). Allen (1975) suggests

that the sex bias and discrimination found in vocational education is a "rather realistic reflection of society" (p. 1). As a result of the presentations of Steele (1974) and Steiger & Cooper (1975) and the Hearings before the Subcommittee on Elementary, Secondary, and Vocational Education of the House of Representatives, the House Committee on Education and Labor "came to the conclusion that the inferior position which women hold in the labor market is being reinforced by many of the current practices in vocational education" (Ellis, 1976, p. 6). Further, Ellis (1976) states that "virtually every section of Title II of the Education Amendments of 1976 refers to the necessity of eliminating sex bias and sex stereotyping in vocational education" (p. 6). Vocational education researchers (Allen, Hope, & Thompson, 1976; Vetter & Peterson, 1978) have identified (a) societal attitudes; (b) employment patterns; (c) enrollment patterns in vocational education; (d) counseling and teacher bias; (e) instructional materials; and (f) educational leadership as factors contributing to sex stereotyping in education and employment.

Studies (Cohen & Bunker, 1975; Crowther & More, 1972; Rosen & Jerdee, 1974; Shiner, 1975; Sucher & More, 1975; Tipton, 1976) show that there is agreement by men and women about sex stereotyping of occupations and discriminatory personnel practices that exist in most occupations.

Counselor's practices and attitudes have received a great deal of attention by vocational education researchers. Studies (Albrecht, 1976; Ahrons, 1976; Burlin, 1976; Eyde, 1970; Prediger & Cole, 1975) have shown counselors to hold sexually stereotypic attitudes, vocational interest inventories to reflect sex role stereotypes resulting from past

socialization, and many attitudinal barriers to exist even after legal and institutional barriers have been removed.

Many projects have been undertaken to eliminate sex bias and sex role stereotyping in vocational education. Twenty-four projects identified as exemplary strategies for elimination of sex bias in vocational education have been reviewed by Maher (1976). These 24 projects were grouped into four categories by major purpose:

1. To increase career awareness
2. To recruit women into non-traditional vocational training
3. To increase commitment and concern of educational personnel through conferences
4. To develop materials for use by students, parents, and community.

Other projects (Lerner, Bergstrom, & Champagne, 1976; Goetsch, 1978; Minnesota State Department of Education, n.d.; Smith, n.d., 1976) reviewed by this researcher also could be grouped by the same major purposes. Areas of study in these projects included: (1) enrollment data; (2) facilities data; (3) teacher attitudes; (4) student attitudes; (5) instructional materials; and (6) student recruitment.

As a result of this portion of the review of literature, the following six generic categories have been identified as areas of major concern for eliminating sex bias and sex stereotyping from vocational education programs:

1. Counseling and guidance
2. Instructional materials

3. Instructional programs

4. Personnel

5. Student recruitment

6. Student services

These categories have been used to classify goal statements written as part of the instrument development phase of this project.

CHAPTER III

DESIGN OF THE STUDY

This study addresses the problem outlined previously in a practical and heuristic way. The design is that of a descriptive and developmental study which provides a method for gathering and analyzing data. The study consists of the steps shown graphically in Figure 2 and described in this chapter.

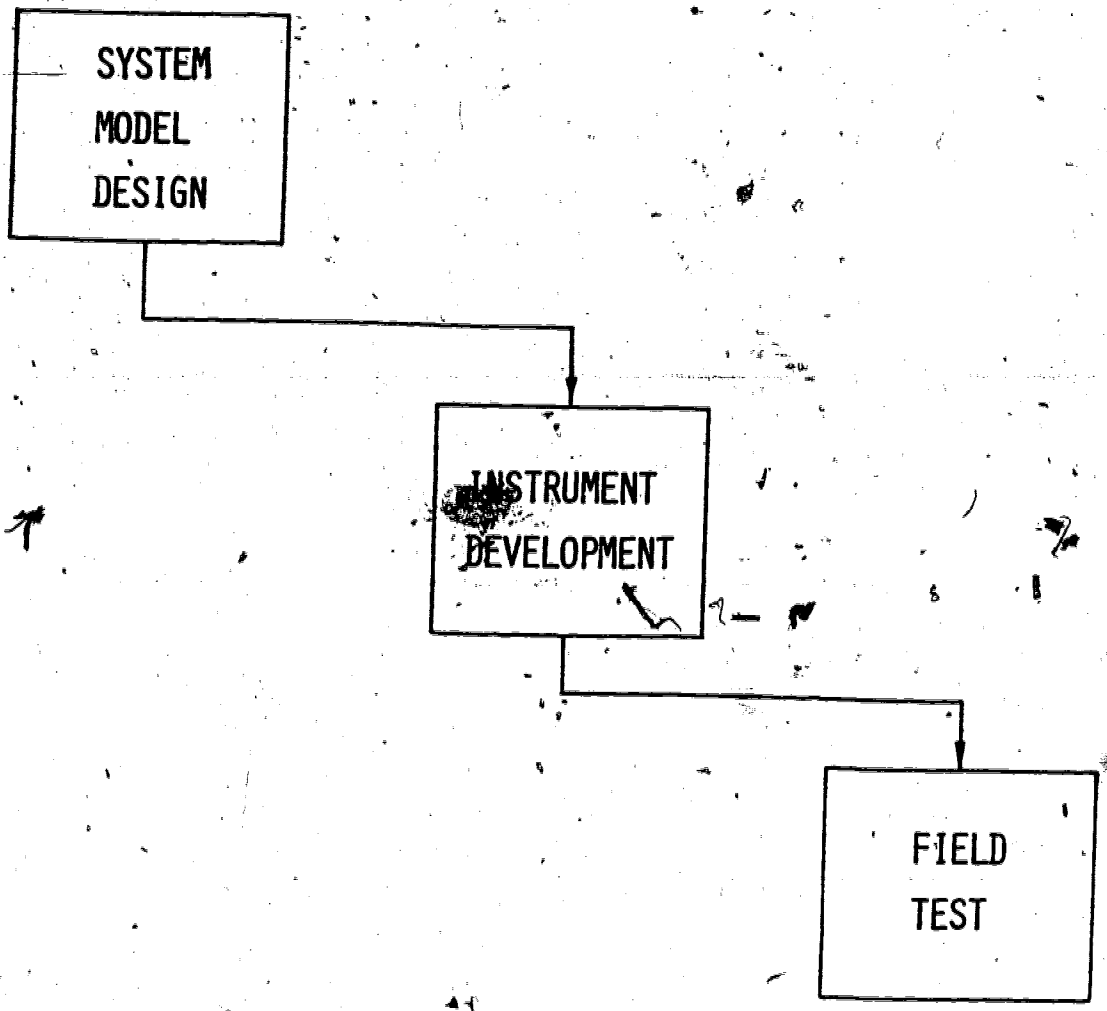
Insert Figure 2 about here

System Model Design

This writer, using a heuristic approach, has concentrated on familiarization with needs assessment and the creation of a general design. This familiarization has taken the form of a thorough literature review of needs assessment in educational planning, including reviews of the ERIC files, Dissertation Abstracts, and the Education Index using descriptors such as: needs assessment; educational needs; educational research; educational planning; and educational evaluation.

As a result of the literature review on needs assessment, needs assessment model development projects, and educational needs assessment projects, a practical needs assessment model has been developed. This

Figure 2. Diagram of Implementation Steps



model has been developed to accomplish the first objective of this project: to develop a practical model/methodology, usable by vocational educators, which will assess the extent to which sex bias and sex role stereotyping exist in Florida's vocational education programs.

The literature yielded three studies which were used most extensively in the development of this model. First, the excellent review of needs assessment models and techniques by Dr. Belle Ruth Witkin entitled An Analysis of Needs Assessment Techniques for Educational Planning at State, Intermediate, and District Levels (1975) provided many alternative methods for data collection and analysis. Second, the Ohio Needs Assessment Guidelines prepared by the Ohio Department of Education (n.d.) provided a concise discussion of needs asssessment procedures adaptable to many situations. Third, the New Hampshire Needs Assessment Handbook for Vocational Education Planning (2nd Ed.) by Gustafson & Severance (1976) was used because of its excellent methods outlined for the assessment of varied vocational education needs. The model developed consists of these seven procedural steps:

1. Establish a needs assessment committee
2. Prepare statements of goals
3. Conduct survey to determine perceived needs
4. Assign priorities to perceived needs
5. Determine actual status
6. Compare the actual status with the desired state (goal statements)
7. Assign priorities to identified needs.

These steps have been influenced to a great extent by the Ohio Needs Assessment Guidelines procedures with major considerations for adaption

and modification to fit this project's situation coming from Gustafson & Severance (1976) and Witkin (1975).

Step one - Establish a needs assessment committee

A needs assessment requires a great deal of direction and coordination. It is important that the total process from planning to execution be overseen. This important task can be carried out by an appointed needs assessment committee. This committee will give needed direction to the entire process in addition to performing specific duties.

The size of the committee should be left to the discretion of the leader of the educational agency which is conducting the needs assessment. While the size of the committee can vary, it should be large enough to represent as many groups in the district as possible, yet be small enough so that meetings will be "work" sessions and not "talk" sessions.

The make-up of the committee should be a major consideration of the educational agency leader. Persons selected should be knowledgeable about education, be representative of the community, educational leadership, instructional personnel, parents and students, and be respected members of the community or state. As least one member (probably the project director) should be knowledgeable about needs assessment. For the purposes of this project it is recommended that a committee of experts in the field of sex bias and sex stereotyping in vocational education be named as consultants to aid the committee in carrying out some of its specific duties.

The members of the committee should become familiar with the needs assessment process and its purpose for they will be making

decisions about procedural strategies and performing specific duties. The duties of the committee in addition to providing general direction will be: to prepare goal statements; to rank perceived needs; and to rank identified needs. By having the committee involved in these duties rather than just one person or the agency involved should enhance the validity of the identified needs and lend credence to the entire study.

Step two - Prepare statements of goals

As a part of its general duties, the needs assessment committee must decide upon which level(s) of education the needs assessment will focus, as well as specific areas which need to be addressed. These decisions must be made before the needs assessment can be conducted.

The specific area which is being addressed by this project is the extent to which sex bias and sex role stereotyping exist in Florida's vocational education programs. Goals statements related to this purpose exist mainly in legislation (Title IX, Public Law 92-482) and the Florida State Plan for Vocational Education Under Title II of the Vocational Education Amendments of 1976. Specific goal statements for the purposes of the needs assessment should be developed from a review of the legislation, the Florida State Plan, and a comprehensive review of related literature. This task might be undertaken by an assigned group from the needs assessment committee or with the aid of the committee of experts on sex bias and sex role stereotyping. The completed list of goal statements should be validated by the committee of experts and/or the full needs assessment committee by using the following criteria: (1) Is the list of statements comprehensive enough to the areas

deemed important? (2) Are the statements written in such a way that they will be understood by the sampling target groups? and (3) Does each statement reflect a desirable outcome of vocational education policies, practices, and activities? The validated list of goal statements (the desired state) will provide the basis upon which the needs assessment survey and other procedures will be conducted.

Step three - Conduct survey to determine perceived needs.

After completing the list of goal statements, plans should be made for determining the perceptions of the various groups involved concerning the importance of each goal and the extent to which the goal is being met. The perceived needs are the discrepancies between the levels of importance and achievement for each goal statement.

The major tasks necessary for completion of this step are:

(1) Determine the group(s) to be surveyed.

(2) Develop and print the survey instrument(s).

(3) Field test the survey instrument.

(4) Determine sampling strategies.

(5) Distribute the survey instruments.

(6) Collect the survey instruments.

The needs assessment committee must decide upon a method for data collection prior to instrument development. For the purposes of this project and other needs assessments involving a great many respondents, it is recommended that a mailed instrument be used in order to keep costs to a minimum. For some smaller scale needs assessments (e.g.,

institutional, program, or course) personal interview schedules might be more appropriate.

The survey instrument(s) should be developed from the list of goal statements giving major consideration to the target group to be surveyed. One or more survey instruments need to be developed depending on the target groups identified (i.e., administrators, teachers, students, parents, community, etc.).

In addition to the list of goal statements, instrument development should involve consideration of format, scales, and the arrangement of goal statements by the needs assessment committee. The directions for the instrument developed by the committee should be clear and concise. The format agreed upon by the committee should be easy to follow and easy to complete in order to elicit a high return rate. The goal statements should be arranged with non-threatening statements first so as not to discourage the respondents from continuing. It is also recommended that any questions asking for personal information or demographic data be placed at the end of the survey instrument.

Once the validated goal statements have been placed in questionnaire form, the instrument should be pilot tested. The purpose of the pilot test is to check the mechanical aspects of the instrument with a small respresentative sample (8-10). The pilot test should be used to discover flaws in the wording of the test items and the directions by encouraging respondents to write comments about the items or directions which they find vague or confusing. The pilot test should also provide information about the time necessary for survey completion.

The questionnaire items and directions should be revised by the committee if necessary after completion of the pilot test. It is recommended that the revised instrument be printed professionally in preparation for the field test.

The field test of the survey instrument should use a small sample (20-40 persons) representative of the target group to be surveyed. Actual survey conditions should be simulated as much as possible. This could be accomplished through the printed instrument(s), coding the instrument(s) so as to determine which group completed an instrument, and the use of a cover letter with a brief explanation of the project. The letter should be sent under the name of the educational agency leader in charge of the survey to give credibility to the study.

All survey procedures should be followed during the field test in order to work out any procedural problems prior to the survey. These procedures should include the initial mailing and any subsequent follow-ups of the needs assessment committee's choice. The data received through returns of the questionnaires should be analyzed. The field test should serve as a test of the administrative procedures and data treatment methods.

Based on the results of the field test, final refinement of the procedures and instrument should be made by the committee in preparation for the survey effort. As final refinements are being made, the sample for the survey should be determined through random selection methods.

The survey questionnaire should be mailed along with a stamped, self-addressed return envelope to the identified sample. As returns are collected the survey instrument(s) should be categorized by groups for data analysis purposes.

Step four - Assign priorities to perceived needs

Analysis of data gathered from instrument returns should determine the discrepancies between levels of importance and achievement for each goal statement for each group. The use of a worksheet may be helpful in tabulating responses for the field test, but analysis should be handled by computer for the actual survey. The worksheets used in the field test should be useful in coding data for computer analysis.

The results of the data analysis will be a discrepancy value for each goal statement for each group. This average discrepancy value for each group will indicate the difference between the importance and achievement for each goal statement.

The discrepancy values should be compiled into a report for use by the needs assessment committee. These values are indicators of perceived needs and are not necessarily valid indicators that a given need actually exists. The discrepancy values will provide the needs assessment committee with information necessary to determine the top priority perceived needs for further investigation.

The needs assessment committee has a choice of different methods by which to assign priorities to the perceived needs. One method, give equal value to each group of respondents and add the values from

each group for each goal statement. The largest values would indicate top priority needs. This procedure assumes that the opinions of each group are of equal importance, an assumption which the needs assessment committee may not wish to make. An alternative method would be to weight the discrepancy values by group according to the wishes of the committee. After calculating the weighted discrepancy value for each goal statement, the committee can rank the perceived needs from largest to smallest by the size of the weighted discrepancy value.

The list of perceived needs in order of priority are based solely on the opinions of persons in the groups surveyed. While the perceptions of importance identified through the survey should be accepted as valid information, the perceptions of the achievement levels of various goal statements may not be accurate. Lack of information about the survey topic or bias as a result of an isolated incident could make these perceptions of achievement inaccurate. There should, therefore, be some objective data which can help to document the actual needs. The perceived needs ranked as top priority by the needs assessment committee should be used as areas in which to concentrate further assessment efforts.

The actual areas of top priority perceived needs to be included in further assessment efforts should be determined by the needs assessment committee by using the following criteria:

(1) The size of the discrepancy values,

(2) The realtive cost of assessments in each area,

(3) The availability of data for assessment;

(4) The ease of conducting assessments in each area,

(5) The time available for further assessment.

Step five - Determine the actual status

The methods used to determine the actual status will usually be determined by the problem being addressed by the survey. For surveys attempting to determine the importance and levels of student achievement, the analysis of standardized test scores would be considered appropriate. For the purposes of this study, however, the actual state may not be readily available in the form of easily accessible existing data.

In order to determine the actual status of sex bias and sex role stereotyping data such as enrollment figures, personnel patterns, administrative policies and procedures must be examined. The committee of experts in the field should prove invaluable in aiding in the accomplishment of this step. Also of great value would be self-study manuals such as Complying With Title IX, Implementing Institutional Self-Evaluation by Matthews & McCune (1976), Self-Study Guide to Sexism in Schools by the Pennsylvania Department of Education (1977), and A Handbook for Workshops on Sex Equality in Education by Verheyden-Hilliard, (n.d.).

Step six - Compare the actual status with the desired state

After having completed the determination of the actual status a comparison of the goal statements (desired state) and the actual status

should be compiled. Discrepancies should be noted and the comparisons should be presented to the needs assessment committee. The discrepancies noted will be the areas of need to be studied by the committee.

Step seven - Assign priorities to identified needs

The needs assessment committee should list the identified needs in order of importance after studying the comparison made in Step six. The setting of priorities should be determined only after considering the ranking given each need by each group surveyed, the size of the discrepancy noted for each identified need, and the validity of any strategy used to determine the actual status.

The committee could assign priorities to needs through discussions among committee members after considering the factors described above. An alternative strategy would be the use of the Delphi technique or a modification of it for rank ordering needs involving needs assessment committee members and committee of experts members in the process.

Instrument Development

The instrument used for data collection in this needs assessment study was designed for distribution through the mail. The mailed questionnaire was designed to identify the extent to which sex bias and sex stereotyping exist in vocational education programs through the opinions of the respondents. Respondents were asked to give their opinions as to the level of importance of and the degree to which their school district is achieving certain goals. These goals took the form of statements to which five-point Likert-type scales were applied (Ary, Jacobs, & Razavieh,

1972; Best, 1970; Green, 1977; Orlich, Clark, Fagan, & Rust, 1975; Tuckman, 1978; Van Dalen, 1973).

The scale used to determine the level of importance of each goal statement was little importance, minor importance, medium importance, major importance, and critical importance. The scale used to determine the level of achievement of each goal statement was very low degree, low degree, average degree, high degree, and very high degree. The scale of the instrument was assumed to be interval. Responses to each item were numerically weighted from one to five.

In order to construct goal statements to be included in the survey instrument, a literature search was conducted in the ERIC files, Dissertation Abstracts, and the Education Index using descriptors such as: educational equity, educational opportunities, equal education, and sex discrimination. The literature search was used to establish six generic categories in which sex bias and sex stereotyping might be found in vocational education. The six categories identified are (1) counseling and guidance; (2) instructional materials; (3) instructional programs; (4) personnel; (5) student recruitment; and (6) student services.

The six categories identified were used for the arrangement of 50 goal statements which were also generated from the literature search. The goal statements were arranged by categories for validation purposes only. The arrangement of goal statements on the survey instrument placed non-threatening items first (Orlich et al., 1975).

Demographic data was requested on the final page of the survey instrument (Green, 1977). Data requested included: sex of the respondent; instructional area; and district in which the respondent teaches.

Validity

In order to ascertain the validity of the items developed for the questionnaire to be used in this study, the items were submitted to a panel of five experts in the field of equity education (Appendix A). These experts were selected on the basis of their expertise in the field as shown by their publications and/or positions as state sex equity coordinators. This procedure is supported by Ary et al. (1972), Best (1970), Hovey (1975), Stoker (1977), Tuckman (1978), and Van Dalen (1973) as a method used to establish face and content validity.

Each expert identified was mailed a letter explaining the purposes of this study and requesting assistance in the validation of the 50 selected questionnaire items (Appendix B). Enclosed with the letter was a list of the items and a sample questionnaire format with directions attached. As a member of the panel of five experts, each person was asked to make appropriate comments on the list of items and to answer the following questions: (1) Is the list of statements comprehensive enough for the categories deemed important? (2) Are the statements written in such a way that they will be understood by the sampling target groups? and (3) Does each statement reflect a desirable outcome of vocational education policies, practices, and activities?

When responses from the panel of experts had been received, the results were compiled and the recommended and appropriate corrections

and revisions to the questionnaire items were made. Upon completion of corrections based on 80% consensus by the experts, the resultant 56 items were put together in the form of the survey questionnaire ready for pilot testing.

Pilot Test

Once content validity had been established, the revised materials were pilot tested with a volunteer group of nine vocational education teachers enrolled in a testing and measurement in vocational education course at Florida State University. The focus of the pilot test was on the ability of the respondents to understand the directions and questionnaire items and to choose a meaningful response.

Respondents were encouraged to write comments about the items or directions which were vague or confusing (Green, 1977; Tuckman, 1978). The pilot test was also used to supply this researcher with information about the time necessary for survey completion (Orlich et al., 1975).

Upon completion of the pilot test, the items and directions were revised appropriately. Questionnaire directions and forms were then prepared for the final field test.

Field Test

The system model was used to develop the survey materials as previously described. The model also requires that the questionnaire used for data collection be tested in order to provide an estimation of reliability.

The field test was designed to resemble the real survey setting. It served to provide information for final questionnaire revision where

necessary. In addition to the reliability check, the field test also served to test the administrative procedures of the survey and data treatment methods.

Sample Selection

For the purpose of this study, vocational education instructional personnel at five area vocational-technical centers randomly selected from the 25 area centers in operation in Florida were chosen as the test population.

Teachers from each of Florida's seven vocational education instructional areas were randomly selected from the five area vocational-technical centers as the sample for the field test. The seven instructional areas are: (1) agriculture; (2) home economics; (3) distributive education; (4) industrial education; (5) business education; (6) health and public service; and (7) diversified occupations. A letter requesting a list of all vocational instructional personnel (Appendix C) was mailed to each director of the five randomly selected area vocational-technical centers used in the field test (Appendix D). A follow-up telephone call was made to each director in order to respond to any questions the directors had about the study. The list of the total population of instructional personnel from the five selected area vocational-technical centers was broken into the seven instructional areas and alphabetized in each group. Each teacher was assigned a number and a random number table was used to select teachers from each group.

A complete breakdown of the sample by sex, instructional area, and district is presented in Table 1.

Insert Table 1 about here

Reliability

The reliability of a measuring instrument has been defined by Ary et al. (1972) as "the degree of consistency with which it measures whatever it is measuring" (p. 200). For the purposes of a needs assessment, a survey questionnaire must provide consistent, accurate data upon which many future decisions will be based.

The questionnaire developed for this study used alternate forms of ten randomly selected items as a means of checking response consistency or reliability (Orlich et al., 1975; Van Dalen, 1973). Ten of the questionnaire items were randomly selected, and alternate items designed to elicit a negative rather than positive response were written. All questionnaire items, positive and negative, were mixed and scattered randomly throughout the instrument without regard to the generic category of the items.

The degree of response reliability was ascertained by comparing the responses on the questions using alternate forms by calculating a Pearson's Product Moment Correlation (Tuckman, 1978).

Instrument Administration

The survey questionnaire was administered through the mail. The initial mailing package contained a cover letter, a stamped, self-addressed envelope, and a questionnaire with directions attached.

Table 1

Breakdown of Field Test Sample

District	Sex	Instructional Area								Total
		Agriculture	Business Education	Distributive Education	Diversified Occupations	Health and Public Service	Home Economics	Industrial Education		
Broward County	Male	0	0	0	0	1	2	2	5	15
	Female	0	3	3	0	2	1	1	10	
Dade County	Male	0	0	1	0	0	0	6	7	12
	Female	0	3	0	0	0	2	0	5	
St. Johns County	Male	3	0	1	0	0	0	1	5	10
	Female	0	1	0	0	2	1	1	5	
Sarasota County	Male	2	0	0	3	0	0	7	12	26
	Female	0	3	0	4	5	1	1	14	
Suwannee County	Male	3	0	0	2	0	0	1	6	7
	Female	0	0	0	0	0	1	0	1	
Total	Male	8	0	2	5	1	2	17	35	
	Female	0	10	3	4	9	6	3	35	
		8	10	5	9	10	8	20		70

The cover letter was written on the sponsoring agent's stationery (Appendix E). It included a clearly stated purpose, identified the sponsoring agency, and assured the respondent of the confidentiality with which the data would be handled.

The questionnaire used in the field test contained 66 items, ten of which were written to elicit a negative response. An example of the questionnaire can be found in Appendix F.

The first mailing package was sent to the 70 persons in the sample. Two weeks after the initial mailing, a follow-up was conducted. Non-respondents were mailed a postcard requesting completion and return of the questionnaire (Appendix G). A second follow-up consisting of a second letter (Appendix H), another questionnaire, and a return envelope was mailed to the remaining non-respondents one week after the postcard mailing.

Data Treatment

The primary purpose of the field test was to test the model/methodology and to check the reliability of responses on the survey questionnaire. In addition, the data from the field test was used to simulate the outcomes from the survey and the data tabulation and analysis methods were checked using this data.

Data from the returned questionnaires was coded and processed to develop a variety of potentially useful listings or distributions as shown in Table 2.

Insert Table 2 about here

Table 2

Questionnaire Data Distributions

Item Response Frequencies	achievement and importance scales
Item/District	achievement and importance scales
Item/Instructional Area	achievement and importance scales
Item/Sex	achievement and importance scales
Item/District/Instructional Area	achievement and importance scales
Item/District/Sex	achievement and importance scales
Item/Instructional Area/Sex	achievement and importance scales
Importance-Achievement Discrepancy/Item	

CHAPTER IV

RESULTS OF THE STUDY

Due to the descriptive and developmental nature of this study, the results reported will describe the three major aspects of the development process: (1) the needs assessment system model development; (2) the instrument development; and (3) the field test.

Model Development

The needs assessment model development phase of the study resulted in the development of a seven step flexible needs assessment model. This phase of the study fulfills the first objective of this study: The development of a practical model/methodology, usable by vocational educators, which will assess the extent to which sex bias and sex role stereotyping exist in Florida's vocational education programs.

The model developed consists of the following seven procedural steps:

1. Establish a needs assessment committee.
2. Prepare statements of goals.
3. Conduct survey to determine perceived needs.
4. Assign priorities to perceived needs.
5. Determine actual status.

6. Compare the actual status with the desired state (goal statements).

7. Assign priorities to identified needs.

Step one

Because of the developmental nature of this study, a needs assessment committee was not organized. This researcher acted in place of the committee by making decisions about procedural strategies and performing specific duties. Through the literature reviews and model development stages of this study, this researcher became familiar with the needs assessment process as suggested in the model/methodology developed.

Step two

Goal statements addressing the problem of sex bias and sex role stereotyping in Florida's vocational education programs were developed by this researcher, simulating a needs assessment committee. The development of goal statements and their subsequent validation are discussed more fully in the instrument development section of this chapter.

Step three

The six major tasks necessary for completion of this step are:

(1) Determine the group(s) to be surveyed.

(2) Develop and print the survey instrument(s).

(3) Field test the survey instrument.

(4) Determine sampling strategies.

(5) Distribute the survey instruments.

(6) Collect the survey instruments.

cational teachers at area vocational-technical centers were selected as the target population to be surveyed. In order to simulate an actual state-wide needs assessment, it was decided by this researcher (simulating the needs assessment committee) that a mailed instrument would be used.

The survey instrument was developed and pilot tested using methods described in the Instrument Development section of this chapter.

The field test was conducted to test administrative procedures of the survey and data treatment methods outlined in the model/methodology and to provide information for final questionnaire revision. The results of the field test are described in detail in the Field Test section of this chapter.

Tasks four, five and six were not attempted as they are all segments of an actual survey and go beyond the purposes of this study.

Steps four through seven

These steps of the model/methodology are specific duties of a needs assessment committee which follow the completion of an actual survey used to determine perceived needs. These steps involve decision making based on the results of the survey of perceived needs, the assignment of priorities for further study. Because of the nature of these procedural steps, actual testing and evaluation of steps four, five, six and seven must be done during real needs assessment study.

Instrument Development

The instrument development phase of this study took the form of a thorough literature review. This review resulted in the establishment

of six generic categories in which sex bias and sex role stereotyping might be found in vocational education. The six categories established are: (1) counseling and guidance; (2) instructional materials; (3) instructional programs; (4) personnel; (5) student recruitment; and (6) student services.

The literature review provided 50 goal statements which were placed within the six generic categories.

Validity

The validity of the 50 goal statements was determined by the panel of five experts from the field of equal education. The analysis of the 50 goal statements by the panel of experts, based on a minimum of 80% consensus by the experts, resulted in the validation of 46 of the original goal statements, the deletion of four of the original goal statements, and the addition of ten new goal statements suggested by four of the five experts. The new list of 56 validated goal statements was used in the pilot test.

Pilot Test

The sample used for the pilot test was drawn from vocational education teachers enrolled in the testing and measurement in vocational education course at the Florida State University. The sample group included six males and three females. They represented five instructional areas of vocational instruction: (1) agriculture; (2) business education; (3) industrial education; (4) home economics; and (5) distributive education.

The pilot test resulted in the rewording of two goal statements which were considered vague by the sample group. The average time taken during the pilot test for reading the cover letter, questionnaire directions, and completing the questionnaire was 25 minutes.

Field Test

The field test was conducted using procedures called for in the needs assessment model developed in this study. All correspondence was written on letterhead stationery. The survey instrument was prepared using information received during the pilot test.

The first mailing package, including a cover letter, a questionnaire with directions, and a stamped, self-addressed return envelope was sent to all 70 persons in the sample. Twenty-six usable survey instruments were returned from the initial mailing for a response rate of 37.4%

The postcard follow-up conducted two weeks later was mailed to the 44 non-respondents. Nine usable instruments were returned resulting in a response rate of 12.86%.

The second follow-up consisting of a second cover letter, another questionnaire with directions, and a stamped, self-addressed return envelope was mailed to the remaining 35 respondents one week after the postcard follow-up. An additional 17 usable returns, or 24.28% of the initial mailing were received as a result of the second questionnaire mailing.

The 52 usable returns produced a 74.29% response rate. There were seven partial returns received but not used producing a total response rate of 84.29% of the initial mailing.

Respondents

The respondents to the survey questionnaire were divided evenly by sex. Both males and females responded at a rate of 74.3% within their groups resulting in a rate of 50% of the total responses.

Sarasota County had a response rate of 92.3%, accounting for 46.1% of the total responses and leading all districts. Dade County had the lowest response rate of 58.3%, accounting for 13.5% of the total responses. While Suwannee County had a response rate of 71.4%, it accounted for the smallest proportion of the total responses at 9.6%.

Within instructional area groups, diversified occupations had the highest response rate at 88.9%, accounting for 15.4% of the total responses. Home economics had the lowest response rate at 62.5%, accounting for 9.6% of the total responses.

A summary of response rates by sex, district, and instructional area is provided in Table 3.

Insert Table 3 about here

Reliability

One of the purposes of the field test as stated in the needs assessment model is to provide an estimation of reliability of data collection instruments.

Questionnaire reliability calculated using Pearson's Product Moment Correlation on the level of importance scale for the positive/negative (+)

Table 3

Summary of Field Test Respondents

Respondent Groups		% return within groups	% total returns
Sex	Male	74.3	50.0
	Female	74.3	50.0
District	Broward County	66.7	19.2
	Dade County	58.3	13.5
	St. Johns County	60.0	11.5
	Sarasota County	92.3	46.1
	Suwannee County	71.4	9.6
Instructional Area	Agriculture	75.0	11.5
	Business Education	70.0	13.5
	Distributive Education	80.0	7.7
	Diversified Occupations	88.9	15.4
	Health & Public Service	70.0	13.5
	Home Economics	62.5	9.6
	Industrial Education	75.0	28.8

item pairs ranged from a high of .71 on items 39-44 and 54-37 to a low of .42 on items 56-66.

Pearson's Product Moment Correlations calculated for positive/negative item pairs on the level of achievement scale ranged from a high of .50 on items 39-44 and 56-66 to a low of .29 on items 55-20.

A summary of all positive/negative item pair correlations is provided in Table 4.

Insert Table 4 about here

As suggested in step three of the needs assessment model the field test has provided information necessary for questionnaire revision prior to actual survey usage. The analysis of positive/negative item pair correlations shows that the responses to all pairs did not reach an acceptable level of reliability. A level as low as .6 or even somewhat lower is acceptable when studying differences between groups as in needs assessment studies (Stoker, 1977). Revisions to item pairs not reaching a reliability level of .6 should be made before a real survey is conducted.

Data Treatment

The treatment of data gathered from returned questionnaires was processed by computer to simulate the data from a full scale needs assessment survey.

The purposes of the field test included the testing of data gathering and treatment techniques. These techniques outlined in Chapter III

Table 4

Summary of ± Item Pair Correlations

Level of Importance

item pair	n	r	r^2
26–53	45	.60	.36
39–44	45	.71	.50
31–58	46	.56	.31
5–49	46	.47	.22
65–15	44	.48	.23
55–20	48	.44	.19
54–37	47	.71	.50
64–48	47	.47	.22
56–66	48	.42	.18
8–33	47	.57	.32

Level of Achievement

item pair	n	r	r^2
26–53	43	.35	.12
39–44	43	.50	.25
31–58	46	.46	.21
5–49	46	.36	.13
65–15	44	.49	.24
55–20	49	.29	.08
54–37	45	.33	.11
64–48	48	.38	.14
56–66	47	.50	.25
8–33	48	.40	.16

progressed smoothly and successfully in the tabulation and analysis of data. The data distributions utilized in this study (Table 2) are presented in Appendix I.

Due to the developmental nature of this study and the small sample size, no discussion of the results of the survey field test data can be made at this time. The data are presented only as a simulation of actual survey results. The data could only serve as a model of what might be expected from an actual survey with no generalizations being made.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The Problem

The problem addressed in this study was the absence of a practical model/methodology that will accurately assess the needs relative to sex bias and sex role stereotype in Florida's vocational education programs.

The purpose of this study was to develop and field test a model which could be used by vocational educators in Florida as a practical needs assessment tool.

The specific objectives for this study were:

1. To develop a practical model/methodology, usable by vocational educators, which will assess the extent to which sex bias and sex role stereotyping exist in Florida's vocational education programs.
2. To develop a needs assessment instrument designed for vocational education instructional personnel.
3. To field test the model and test instrument in selected locations.

Procedures Used

The first objective of this study was met through a thorough review of literature on needs assessment, needs assessment model development projects, and educational needs assessment projects. The literature review

was concentrated on familiarization with educational planning, needs assessment as a part of educational planning, and the creation of a general design.

The literature review resulted in the development of a seven procedural step model/methodology for general needs assessments. The model developed is an adaptation of procedures identified in many needs assessment models and projects found in the literature review.

A review of literature related to sex discrimination, sex bias, sex role stereotyping, and methods and projects designed to eliminate these problems from education in general and vocational education in particular was used to accomplish the second objective of this study.

Six generic categories were established in which sex bias and sex role stereotyping might be found in vocational education. The literature review also provided 50 goal statements of vocational education which were placed in the six generic categories. These goal statements provided the basis for the development of a survey instrument for vocational teachers.

The validation of the goal statements was carried out through an analysis of the goal statements by a panel of experts in the field of equal education. The panel of experts were asked to react to the list of goal statements within the generic categories by answering the following questions: (1) Is the list of statements comprehensive enough to the categories deemed important? (2) Are the statements written in such a way that they will be understood by the sampling target group? and (3) Does each statement reflect a desirable outcome of vocational education policies, practices, and activities?

The validation process, based on 80% concensus by the experts, resulted in the generation of a list of 56 goal statements to be used in the survey instrument.

The field test, conducted under real survey conditions, served to provide information used in final questionnaire revision, as a check of response reliability, and as a test of survey administrative procedures and data treatment methods.

The survey was conducted through an initial mailing and two follow-up mailings. The survey produced a usable response rate of 74.29% from the field test sample. An additional 10% partial responses were obtained for an overall response rate of 84.29%.

The data gathered on the two scales were recorded and processed to determine frequencies, means, and discrepancies through groupings by district, instructional area, and sex.

Conclusions

The following conclusions are based upon the previously reported results of the study. No conclusions or generalizations are made about the data gathered and reported as part of the field test. These data are only reported as a simulation of actual survey data tabulation and treatment results.

On the basis of the procedures followed and the results reported, the following conclusions are reached.

1. The model/methodology developed has the practicality necessary to be used by vocational education personnel. The procedures outlined are general yet complete enough to allow

flexibility in the model's use for varied educational needs assessment purposes.

2. The model/methodology can be utilized by educational agencies using limited personnel and resources.
3. The six generic categories established in the instrument development phase of this study are valid areas of concern for vocational educators. These validated categories are areas in which sex bias and sex role stereotyping would most likely be found in vocational education.
4. The panel of experts is invaluable in the preparation and validation of goal statements used in the needs assessment. The experts are also valuable in providing insights into problem anticipation and directions for problem solutions.
5. Complete pre-planning, attention to detail, and carefully worded follow-up materials must be used to help ensure adequate response rates in mailed surveys.
6. Data tabulation, treatment, and reporting methods utilized in this study are usable, as discussed, for state-wide or district needs assessments.

Recommendations

The following recommendations are based on the previously reported results. It is recommended that:

1. Revisions should be made to all positive/negative item pairs with correlations less than .6 used for questionnaire reliability check by an expert in testing and measurement prior to diffusion of the questionnaire.

2. Further testing of the model/methodology be conducted through the model's usage in needs assessment studies planned by the Division of Vocational Education.
3. Evaluation of steps four through seven of the model/methodology should be carried out as the model is put into usage in needs assessment studies. Any problems encountered should be noted so that appropriate revisions to the model might be made.
4. Survey instruments developed for needs assessment projects should be constructed by a committee member or a consultant trained in testing and measurement techniques. The needs assessment committee will provide final approval of the instrument. However, expertise of this nature is an invaluable aid in producing valid, reliable data gathering devices.
5. The needs assessment committee should be directed by a person knowledgeable about needs assessment. The balance of the committee should become familiar with the needs assessment process and its purpose in order for the committee to perform its specific duties and to make decisions about procedural strategies.
6. A panel of subject matter experts be used in addition to or as part of the needs assessment committee whenever possible.

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APPENDICES

APPENDIX A

Panel Of Experts

Used For Validating

Questionnaire Items

Ms. Linda Beene, Program Manager
Vocational Equity Programs, VTE
Arkansas State Department of Education

Ms. Roberta Dowell, Director
Elimination of Sex Bias and Sex Stereotyping
Vocational Education
Nevada State Department of Education

Ms. Pat Goggans
Supervisor, Sex Equity
Division of Occupational Education
Colorado State Board of Community Colleges

Dr. Shirley McCune
Resource Center on Sex Roles in Education
Council of Chief State Officers
Washington, District of Columbia

Dr. Louise Vetter
Senior Research Specialist
National Center for Research in Vocational Education
The Ohio State University

APPENDIX B

Letter Of Explanation To

Panel Of Experts

College of Education
Industrial Arts

The Florida State University
Tallahassee, Florida 32306

Dear

As a graduate research assistant at Florida State University, I am developing a needs assessment model to be used in the identification of needs with regard to sex bias and sex stereotyping in vocational programs in Florida. As a part of this project, a pilot and field tests are planned for this summer. This pilot test is scheduled for Monday, July 17.

Prior to these tests, I am hoping to validate the goal statements used on the questionnaire through the use of a panel of five experts in equality of education. Based upon my readings and the suggestions of Ms. Lillian Renfroe, Vocational Education Equity Coordinator in Florida, I feel that you could serve effectively in this role.

As a member of this panel of five experts, your duties would be to respond to the list of 50 goal statements provided by answering the following questions: (1) Is the list of statements comprehensive enough to the areas deemed important? (2) Are the statements written in such a way that they will be understood by the sampling target groups? and (3) Does each statement reflect a desirable outcome of vocational education policies, practices, and activities?

Your help with this matter would be greatly appreciated. If you do not choose to be a member of this panel, please return all materials in the envelope provided as soon as possible.

Enclosed you will find a sample of the questionnaire format and the list of 50 goal statements identified.

The sample selected for the field test is vocational instructional personnel at area vocational technical centers. The instrument being developed is aimed at this group only. Instruments designed for use by administrators, counselors, and students will be developed after field testing has been completed.

If I can answer any questions or be of assistance in any way, please feel free to contact me at anytime. Thank you very much for your time.

Sincerely,

Steven E. Sorg

/lp
enclosures

APPENDIX C

Letter Of Request To

Area Vocational-Technical

Center Directors

College of Education
Industrial Arts

The Florida State University
Tallahassee, Florida 32306

July 24, 1978

Dear

The Bureau of Vocational Research of the Division of Vocational Education in cooperation with the Florida State University is developing a method which can be used to assess the extent to which sex bias and sex role stereotyping exist in Florida's vocational education programs. This study is part of the Division of Vocational Education's efforts to comply with Title IX of the Education Amendments of 1972 (Public Law 92-318) and Title II of the Education Amendments of 1976 (Public Law 94-482).

As part of the developmental process we are going to field test a survey instrument designed for vocational education instructional personnel. The sample for the field test will be approximately 60 teachers selected randomly from five area vocational-technical centers.

In order to prepare the survey mail-out for the 60 teachers by Friday, August 14, we need lists of all instructional personnel and their instructional area from each of the five area centers chosen for the field test. We have selected your area vocational-technical center as one which we would like to use for the field test. The information gathered from your center by this instrument will be strictly confidential and will only be used for the purpose of validating the survey instrument. Your help in providing us with such a list from your school would be greatly appreciated.

We plan a follow-up telephone call to you Friday, July 28. At that time we can answer any questions you might have about the study and explain it to you in more detail.

If you would like a copy of the results of the field test, we would be happy to share them with you at your request.

Sincerely,

Dr. W. H. Hinley
Project Director

Steven E. Sorg
Graduate Assistant

gc

APPENDIX D

Area Vocational-Technical Centers And Districts Used In Field Test

Miami Lakes Technical Education Center
Dade County
Miami Lakes, Florida

Sarasota County Area Vocational-Technical Center
Sarasota County
Sarasota, Florida

Sheridan Vocational Center
Broward County
Hollywood, Florida

St. Augustine Technical Center
St. Johns County
St. Augustine, Florida

Suwannee-Hamilton Area Vocational-Technical Center
Suwannee County
Live Oak, Florida

APPENDIX E

First Mailing

Cover Letter

RALPH D. TURLINGTON
COMMISSIONER

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32304

August 18, 1978

Dear Vocational Educator:

The Bureau of Vocational Research of the Division of Vocational Education in cooperation with the Florida State University is conducting a study to assess the extent to which sex bias and sex role stereotyping exist in Florida's vocational education programs. This information will be used to design programs intended to eliminate sex bias and sex role stereotyping from vocational education programs in compliance with Title IX of the Education Amendments of 1972 (Public Law 92-318) and Title II of the Education Amendments of 1976 (Public Law 94-482).

We would like for you to complete the enclosed questionnaire by marking the appropriate responses to each item. Further directions are provided on the questionnaire. Your opinions would be greatly appreciated. If you wish to include any special comments, please write them in the remarks section. All responses will be handled confidentially.

Please return the questionnaire in the enclosed self-addressed, stamped envelope by September 1. We hope to complete the study by September 29 and your cooperation will help us a great deal. If you want a copy of the results of the study, please so indicate on the questionnaire.

Sincerely,

Dr. W.H. Hinely
Project Director

Steven E. Sorg
Graduate Assistant

WHH:SES/mls
Enclosures: Questionnaire
Envelope

APPENDIX F

Survey Questionnaire

DIRECTIONS FOR SURVEY QUESTIONNAIRE

Attached are 66 goal statements with regard to sex bias and sex stereotyping in vocational education programs in Florida. To the left of each goal statement you are to indicate your opinion of the level of importance of each goal to overcoming sex bias, sex stereotyping, and sex discrimination in vocational education. Use the following key to indicate the importance you attach to each goal.

( ) - This goal is of little or no importance.

( ) - This goal is of minor importance.

( ) - This goal is of medium importance.

( ) - This goal is of major importance.

( ) - This goal is of critical importance.

To the right of each goal statement you are to indicate your opinion of the degree to which the district is achieving this goal. Use the following key to indicate your opinion.

( ) - This goal is being achieved to a very low degree.

( ) - This goal is being achieved to a low degree.

( ) - This goal is being achieved to an average degree.

( ) - This goal is being achieved to a high degree.

( ) - This goal is being achieved to a very high degree.

Put a check in the space next to the response that best corresponds with your opinion. Make sure that you check a response for both the importance of each goal and the degree of achievement of each goal.

The following definitions are provided in order to give you a more clear understanding of certain questionnaire items.

Sex bias: behaviors resulting from the assumption that one sex is superior to the other.

Sex discrimination: any action which limits or denies a person or group of persons opportunities, privileges, roles, or rewards on the basis of their sex.

Sex stereotyping: attributing behaviors, abilities, interests, values, and roles to a person or group of persons on the basis of their sex.

Levels of Importance						Goal Statements	Levels of Achievement				
Little importance	Minor importance	Medium importance	Major importance	Critical importance			Very low degree	Low degree	Average degree	High degree	Very high degree
( )	( )	( )	( )	( )	1.	Fringe benefits (retirement, sick leave, insurance, etc.) are the same for all instructional personnel regardless of sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	2.	Graduation requirements are the same for females and males in your instructional area.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	3.	Counselors encourage students to select courses on the basis of the student's individual interests and abilities rather than on the basis of sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	4.	Employment and job placement assistance is provided to students without regard to sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	5.	Efforts have been taken to ensure that personnel assignments in vocational education are not made on the basis of sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	6.	Counselors provide complete information about nontraditional careers to both female and male students.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	7.	The placement service attempts to place female and male students in nontraditional jobs for which they are prepared.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	8.	The rules and regulations concerning student appearance (attire, hair length, etc.) are the same for females and males.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	9.	All informational materials relating to counseling and guidance services communicate clearly that the entire range of services is available to every student regardless of sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	10.	Prizes, honors, and awards are conferred upon students without differentiation on the basis of sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	11.	Tests and inventories used in counseling and guidance are sex fair.	( )	( )	( )	( )	( )

Levels of Importance						Goal Statements	Levels of Achievement				
Little importance	Minor importance	Medium importance	Major importance	Critical importance			Very low degree	Low degree	Average degree	High degree	Very high degree
( )	( )	( )	( )	( )	12.	Recruitment efforts for vocational programs are made without regard to the sex of the prospective students.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	13.	All classes, classroom activities, and classroom assignments are carried out on a coeducational basis.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	14.	Efforts are being made to develop new curricular materials for vocational and career education courses which will not perpetuate sex bias and sex role stereotyping.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	15.	There are not enough women in vocational education administrative positions.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	16.	All educational facilities are equally available for use by both male and female students under comparable and equitable conditions.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	17.	Counselors provide the same information about instructional programs to both male and female applicants.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	18.	All extracurricular activities are operated without differentiation on the basis of sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	19.	Male and female applicants have equal access to all instructional programs.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	20.	Administrators and supervisors show sexual bias in their treatment of employees.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	21.	Males are recruited into traditionally female vocational programs (e.g. home ecohomics, nursing, etc.)	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	22.	All medical, hospital, accident, & life insurance policies or plans are provided to students without differentiation in coverage, benefits, or eligibility on the basis of sex.	( )	( )	( )	( )	( )

Levels of Importance						Levels of Achievement				
Little importance	Minor importance	Medium importance	Major importance	Critical importance	Goal Statements	Very low degree	Low degree	Average degree	High degree	Very high degree
( )	( )	( )	( )	( )	23. Females are recruited into traditionally male vocational programs (e.g. auto mechanics, masonry, etc.)	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	24. All student honors, prizes, and awards are free of gender labels.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	25. Membership in all clubs and honor societies is open to students without regard to sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	26. Instructors in traditionally male programs (e.g. auto mechanics, masonry, etc.) show equal interest in and provide equitable instruction for female and male students.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	27. Recruitment materials are not sex biased or sex stereotyped.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	28. Referrals of potential student employees are made without specification of sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	29. All vocational education instructional personnel screen instructional materials for sex bias and sex stereotypes.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	30. Instructional personnel have access to resource materials which can assist them in overcoming sex bias and sex stereotyping in instructional materials.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	31. The outcomes of promotion procedures in vocational education are not sex discriminatory and exclude sex bias and sex stereotyping.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	32. Instructional personnel treat male and female students equitably.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	33. Students must follow different sets of rules and regulations concerning appearance (attire, hair length, etc.) depending upon the student's sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	34. Equitable health services are provided to males and females.	( )	( )	( )	( )	( )

Levels of Importance						Goal Statements	Levels of Achievement				
Little importance	Minor importance	Medium importance	Major importance	Critical importance			Very low degree	Low degree	Average degree	High degree	Very high degree
( )	( )	( )	( )	( )	35.	Rules and regulations regarding the behavior of students are the same for males and females.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	36.	Inservice programs have been used to help reduce sex bias & stereotyping in vocational programs.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	37.	Instructional personnel have not had the opportunity to participate in inservice programs designed to provide them with specific skills for reducing sexism in the classroom.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	38.	Instructors in traditionally female programs (e.g. home economics, nursing, etc.) show equal interest in and provide equitable instruction for male and female students.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	39.	All vocational education instructional personnel have the skills necessary to identify sex bias and sex stereotyping in instructional materials.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	40.	All vocational education course titles and descriptions are gender-free.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	41.	Instructional staff members of comparable rank are given responsibilities of equal weight by the administration without regard to the staff member's sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	42.	All catalogues make it clear that all courses are open to students of both sexes.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	43.	Advancement opportunities are the same for all instructional personnel regardless of sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	44.	Vocational education instructional personnel do not recognize sex bias and sex stereotyping in instructional materials.	( )	( )	( )	( )	( )

Levels of Importance						Goal Statements	Levels of Achievement				
Minor importance	Major importance	Minor importance	Major importance	Critical importance			Very low degree	Low degree	Average degree	High degree	Very high degree
( )	( )	( )	( )	( )	45.	Counselors encourage students to consider seriously all programs of study.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	46.	The punishments or penalties imposed for violations of rules of behavior are the same for males and females.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	47.	Inservice programs have been used to create awareness of sex bias and sex stereotyping in vocational programs.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	48.	Eligibility requirements for student services are different for male and female students.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	49.	Personnel assignments in vocational education are made on the basis of sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	50.	Instructional personnel display no sexually biased or stereotypic attitudes in their treatment of students.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	51.	Male and female participants have equitable opportunity for participation and involvement in extracurricular activities.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	52.	Student employment listings are made without sex specification.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	53.	Instructors in traditionally male programs (e.g. auto mechanics, masonry, etc.) fail to provide equitable instruction for female students.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	54.	Inservice programs have been used to provide instructional personnel with specific skills for reducing sex bias in the classroom.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	55.	Administrators and supervisors display no sexually biased or stereotypic attitudes in their treatment of employees.	( )	( )	( )	( )	( )

Levels of Importance						Levels of Achievement					
Little importance	Minor importance	Medium importance	Major importance	Critical importance	Goal Statements	Very low degree	Low degree	Average degree	High degree	Very high degree
( )	( )	( )	( )	( )	56. The standards used for determining compliance with rules of behavior are the same for females and males.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	57. Instructional materials (textbooks, tapes, films, etc.) used in your vocational program do not perpetuate sex bias and sex role stereotyping.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	58. Promotion procedures in vocational education have been sex discriminatory in their outcomes.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	59. Female and male student drop-out rates are equivalent to enrollment rates in your instructional area.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	60. Enrollments are balanced between male and female students in your instructional program.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	61. All students are actively encouraged to explore all areas of vocational education, including those which are nontraditional for their sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	62. Instructional personnel have an understanding of the ways that sex bias and sex-stereotyping in instructional materials can be corrected and/or incorporated into the learning experiences of students.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	63. The criteria and selection procedures for honors, prizes, and awards are developed without regard to sex.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	64. The eligibility requirements for all student services are identical for female and male students.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	65. Women are well represented in vocational education administrative positions.	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	66. Male and female students are judged by different criteria for determining compliance with rules of behavior.	( )	( )	( )	( )	( )

PERSONAL INFORMATION DATA

Please complete the following:

1. Female _____ Male _____

2. Your instructional area is:

_____Agriculture

_____Home Economics

_____Distributive Education

_____Industrial Education

_____Business Education

_____Health and Public Service

_____Diversified Occupations

3. The district in which you teach is _____ County.

4. Would you like a copy of the results of this study?

Yes _____ No _____

5. Comments or suggestions:

APPENDIX G

Postcard Follow-Up

Dear Vocational Educator:

Two weeks ago you received a questionnaire concerning sex bias and sex stereotyping in Florida's vocational programs. This is a reminder to ask your help in completing and returning that questionnaire. If you have already done so, thank you. If not, your reply is needed to help in assessing the extent to which sex bias and sex stereotyping exist in Florida's vocational programs.

Thank you for your cooperation.

Steven E. Sorg
Graduate Assistant

APPENDIX H

Follow-Up

Cover Letter

RALPH D. TURLINGTON
COMMISSIONER

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32304

September 7, 1978

Dear Vocational Educator:

The school year is now underway and you are busy providing instruction for your many vocational students. We, however, still need your assistance. The questionnaire we sent you a while back may be buried somewhere so here is another copy for your convenience.

If you were hesitant about completing a questionnaire seeking information about possible sex bias and sex role stereotyping in vocational education, even though confidentially, let us address that issue briefly. The names of the respondents to this questionnaire are of no significance to these researchers. Names are only needed for the initial mail-out and subsequent follow-ups. Data from returned questionnaires are translated into numbers and the original data and names are destroyed.

A high response rate is essential to the success of this study. Your participation for 30 minutes can make the difference. Your participation will ensure that the many long hours of work will all have been well spent. Again, let me assure you of the confidentiality of your response. When you complete the instrument, please return it in the enclosed self-addressed, stamped envelope.

If for some reason you still do not wish to participate, it would be greatly appreciated if you would indicate that decision on the questionnaire and return it as addressed. In any case, thank you for your time and considaration.

Sincerely,

Dr. W. H. Hinely
Project Director

Steven E. Sorg
Graduate Assistant

WHH:SES/mo
Enclosures: Questionnaire/
Envelope

APPENDIX I

Tables

Table 5

Item Response Frequencies

Level of Importance

Item #		Code 1	2	3	4	5	No. Resp.	Mean
1	Freq.	2	1	5	16	27	0	4.27
	Rel. Freq. %	3.9	2.0	9.8	31.4	52.9	0	
2		1	1	6	15	28	0	4.33
		2.0	2.0	11.8	29.4	54.9	0	
3		1	0	3	25	22	0	4.31
		2.0	0	5.9	49.0	43.1	0	
4		2	1	6	16	26	0	4.23
		3.9	2.0	11.8	31.4	51	0	
5		2	1	8	23	16	1	3.92
		3.9	2.0	15.7	45.1	31.4	2.0	
6		1	0	8	21	18	3	3.90
		2.0	0	15.7	41.2	35.3	5.9	
7		2	0	8	23	14	4	3.68
		3.9	0	15.7	45.1	27.5	7.8	
8		3	1	14	18	13	2	3.60
		5.9	2.0	27.5	35.3	25.5	3.9	
9		1	1	7	19	21	2	4.02
		2.0	2.0	13.7	37.3	41.2	3.9	
10		1	0	11	17	20	2	3.96
		2.0	0	21.6	33.3	39.2	3.9	
11		1	0	8	21	18	3	
		2.0	0	15.7	41.2	35.3	5.9	
12		2	1	6	22	18	2	3.92
		3.9	2.0	11.8	43.1	35.3	3.9	
13		3	1	5	22	18	2	3.88
		5.9	2.0	9.8	43.1	35.3	3.9	
14		1	1	12	19	14	4	3.62
		2.0	2.0	23.5	37.3	27.5	7.8	
15		4	4	14	9	16	4	3.33
		7.8	7.8	27.5	17.6	31.4	7.9	
16		1	1	6	22	20	1	09
		2.0	2.0	11.8	43.1	39.2	2.0	
17		1	0	8	19	21	2	4.03
		2.0	0	15.7	37.3	41.2	3.9	
18		3	3	12	19	11	3	3.45
		5.9	5.9	23.5	37.3	21.6	5.9	
19		1	0	4	25	20	1	4.17
		2.0	0	7.8	49.0	39.2	2.0	
20		6	4	6	19	14	2	3.49
		11.8	7.8	11.8	37.3	27.5	3.9	
21		7	11	15	13	2	3	2.66
		13.7	21.6	29.4	25.5	3.9	5.9	

Table 5 (continued)

Item		Code 1	2	3	4	5	No. Resp.	Mean
22	Freq.	1	0	11	20	15	4	3.70
	Rel. Freq. %	2.0	0	21.6	39.2	29.4	7.8	
23		1	4	16	16	12	2	3.54
		2.0	7.8	31.4	31.4	23.5	3.9	
24		4	4	15	14	14	0	3.58
		7.8	7.8	29.4	27.5	27.5	0	
25		3	5	12	18	11	2	3.45
		5.9	9.8	23.5	35.3	21.6	3.9	
26		2	1	8	25	14	1	3.88
		3.9	2.0	15.7	49.0	27.5	2.0	
27		6	0	8	23	13	1	3.66
		11.8	0	15.7	45.1	25.5	2.0	
28		6	1	11	21	10	2	3.43
		11.8	2.0	21.6	41.2	19.6	3.9	
29		9	4	17	12	7	2	2.96
		17.6	7.8	33.3	23.5	13.7	3.9	
30		6	3	18	11	9	4	3.03
		11.8	5.9	35.3	21.6	17.6	7.8	
31		2	0	13	21	13	2	3.72
		3.9	0	25.5	41.2	25.5	3.9	
32		0	0	6	24	20	1	4.19
		0	0	11.8	47.1	39.2	2.0	
33		13	3	12	15	6	2	2.84
		25.5	5.9	23.5	29.4	11.8	3.9	
34		2	0	6	21	21	1	4.09
		3.9	0	11.8	41.2	41.2	2.0	
35		0	4	6	21	19	1	4.02
		0	7.8	11.8	41.2	37.3	2.0	
36		4	6	18	14	7	2	3.15
		7.8	11.8	35.3	27.5	13.7	3.9	
37		6	4	20	13	6	2	3.05
		11.8	7.8	39.2	25.5	11.8	3.9	
38		3	2	10	18	12	6	3.31
		5.9	3.9	19.6	35.3	23.5	11.8	
39		4	3	14	22	6	2	3.33
		7.8	5.9	27.5	43.1	11.8	3.9	
40		5	1	14	16	13	2	3.49
		9.8	2.0	27.5	31.4	25.5	3.9	
41		2	1	8	23	15	2	3.82
		3.9	2.0	15.7	45.1	29.4	3.9	
42		4	0	7	22	17	1	3.88
		7.8	0	13.7	43.1	33.3	2.0	
43		0	0	6	21	23	1	4.25
		0	0	11.8	41.2	45.1	2.0	

Table 5 (continued)

Item		Code 1	2	3	4	5	No. Resp.	Mean
44	Freq.	5	1	11	20	9	5	3.23
	Rel. Freq. %	9.8	2.0	21.6	39.2	17.6	9.8	
45		2	0	11	22	13	3	3.68
		3.9	0	21.6	43.1	25.5	5.9	
46		2	1	8	19	17	4	3.70
		3.9	2.0	15.7	37.3	33.3	7.8	
47		6	7	19	10	6	3	2.88
		11.8	13.7	37.3	19.6	11.8	5.9	
48		5	1	12	16	14	3	3.47
		9.8	2.0	23.5	31.4	27.5	5.9	
49		6	4	7	17	12	5	3.19
		11.8	7.8	13.7	33.3	23.5	9.8	
50		2	0	9	20	19	1	4.00
		3.9	0	17.6	39.2	37.3	2.0	
51		5	4	9	19	11	3	3.35
		9.8	7.8	17.6	37.3	21.6	5.9	
52		6	1	13	21	10	0	3.54
		11.8	2.0	25.5	41.2	19.6	0	
53		4	1	13	18	9	6	3.17
		7.8	2.0	25.5	35.3	17.6	11.8	
54		5	5	18	12	8	3	3.07
		9.8	9.8	35.9	23.5	15.7	5.9	
55		3	0	7	22	18	1	3.96
		5.9	0	13.7	43.1	35.3	2.0	
56		3	0	8	20	18	2	3.86
		5.9	0	15.7	39.2	35.3	3.9	
57		3	1	9	24	11	3	3.58
		5.9	2.0	17.6	47.1	21.6	5.9	
58		6	2	14	15	10	4	3.17
		11.8	3.9	27.5	29.4	19.6	7.8	
59		4	4	17	10	7	9	2.70
		7.8	7.8	33.3	19.6	13.7	17.6	
60		7	12	15	8	3	6	2.41
		13.7	23.5	29.4	15.7	5.9	11.8	
61		1	1	14	19	12	4	3.54
		2.0	2.0	27.5	37.3	23.5	7.8	
62		3	1	18	16	9	4	3.29
		5.9	2.0	35.3	31.4	17.6	7.8	
63		2	2	10	18	17	2	3.78
		3.9	3.9	19.6	35.3	33.3	3.9	
64		1	2	9	20	17	2	3.86
		2.0	3.9	17.6	39.2	33.3	3.9	
65		3	1	11	17	14	5	3.45
		5.9	2.0	21.6	33.3	27.5	9.8	
66		7	2	13	17	7	5	3.00
		13.7	3.9	25.5	33.3	13.7	9.8	

Table 6

Item Response Frequencies

Level of Achievement

Item		Code						
		1	2	3	4	5	No. Resp.	Mean
1	Freq.	0	0	12	18	21	0	4.17
	Rel. Freq. %	0	0	23.5	35.3	41.2	0	
2		1	2	7	16	25	0	4.21
		2.0	3.9	13.7	31.4	49.0	0	
3		1	5	11	17	16	1	3.76
		2.0	9.8	21.6	33.3	31.4	2.0	
4		1	8	11	12	19	0	3.78
		2.0	15.7	21.6	23.5	37.3	0	
5		4	2	15	17	11	2	3.45
		7.8	3.9	29.4	33.3	21.6	3.9	
6		1	4	12	23	7	4	3.37
		2.0	7.8	23.5	45.1	13.7	7.8	
7		3	6	14	17	7	4	3.13
		5.9	11.8	27.5	33.3	13.7	7.8	
8		1	3	16	15	15	1	3.72
		2.0	5.9	31.4	29.4	29.4	2.0	
9		1	2	13	16	18	1	3.88
		2.0	3.9	25.5	31.4	35.3	2.0	
10		2	1	12	19	16	1	3.84
		3.9	2.0	23.5	37.3	31.4	2.0	
11		1	3	11	19	14	3	3.64
		2.0	5.9	21.6	37.3	27.5	5.9	
12		1	7	13	19	9	2	3.43
		2.0	13.7	25.5	37.3	17.6	3.9	
13		2	2	12	19	14	2	3.68
		3.9	3.9	23.5	37.3	27.5	3.9	
14		1	5	19	15	7	4	3.19
		2.0	9.8	37.3	29.4	13.7	7.8	
15		4	6	21	9	7	4	2.94
		7.8	11.8	41.2	17.6	13.7	7.8	
16		4	2	9	16	19	1	3.80
		7.8	3.9	17.6	31.4	37.3	2.0	
17		1	1	11	22	13	3	3.70
		2.0	2.0	21.6	43.1	25.5	5.9	
18		1	3	14	21	8	4	3.39
		2.0	5.9	27.5	41.2	15.7	7.8	
19		1	3	11	18	17	1	3.83
		2.0	5.9	21.6	35.3	33.3	2.0	
20		2	8	14	8	17	2	3.47
		3.9	15.7	27.5	15.7	33.3	3.9	
21		7	11	15	13	2	3	2.667
		13.7	21.6	29.4	25.5	3.9	5.9	

Table 6 (continued)

Item		Code 1	2	3	4	5	No. Resp.	Mean
22	Freq.	1	0	11	18	17	4	3.76
	Rel. Freq. %	2.0	0	21.6	35.3	33.3	7.8	
23		9	17	13	6	3	3	2.37
		17.6	33.3	25.5	11.8	5.9	5.9	
24		2	4	19	14	11	1	3.49
		3.9	7.8	37.3	27.5	21.6	2.0	
25		2	2	20	12	13	2	3.51
		3.9	3.9	39.2	23.5	25.5	3.9	
26		8	5	14	15	6	3	2.94
		15.7	9.8	27.5	29.4	11.8	5.9	
27		4	5	16	12	12	2	3.33
		7.8	9.8	31.4	23.5	23.5	3.9	
28		5	8	17	9	7	5	2.80
		9.8	15.7	33.3	17.6	13.7	9.8	
29		10	12	16	7	1	5	2.25
		19.6	23.5	31.4	13.7	2.0	9.8	
30		10	10	17	6	2	6	2.25
		19.6	19.6	33.3	11.8	3.9	11.8	
31		5	2	20	13	7	2	3.13
		9.8	7.8	39.2	25.5	13.7	3.9	
32		2	2	15	19	11	2	3.56
		3.9	3.9	29.4	37.3	21.6	3.9	
33		2	13	17	4	13	2	3.13
		3.9	25.5	33.3	7.8	25.5	3.9	
34		1	1	16	13	20	0	3.98
		2.0	2.0	31.4	25.5	39.2	0	
35		0	2	11	20	16	2	3.86
		0	3.9	21.6	39.2	31.4	3.9	
36		11	8	19	8	1	4	2.37
		21.6	15.7	37.3	15.7	2.0	7.8	
37		3	2	16	14	10	6	3.15
		5.9	3.9	31.4	27.5	19.6	11.8	
38		3	5	15	8	10	10	2.74
		5.9	9.8	29.4	15.7	19.6	19.6	
39		8	9	20	8	1	5	2.41
		15.7	17.6	39.2	15.7	2.0	9.8	
40		0	2	15	19	11	4	3.52
		0	3.9	29.4	37.3	21.6	7.8	
41		3	6	12	16	12	2	3.43
		5.9	11.8	23.5	31.4	23.5	3.9	
42		0	2	14	14	19	2	3.86
		0	3.9	27.5	27.5	37.3	3.9	
43		3	5	18	13	10	2	3.31
		5.9	9.8	35.3	25.5	19.6	3.9	

Table 6 (continued)

Item		Code 1	2	3	4	5	No. Resp.	Mean
44	Freq.	2	4	23	7	9	6	2.98
	Rel. Freq. %	3.9	7.8	45.1	13.7	17.6	11.8	
45		0	7	14	14	11	5	3.27
		0	13.7	27.5	27.5	21.6	9.8	
46		1	2	13	18	13	4	3.54
		2.0	3.9	25.5	35.3	25.5	7.8	
47		12	17	15	2	0	5	1.94
		23.5	33.3	29.4	3.9	0	9.8	
48		4	14	15	7	9	2	2.94
		7.8	27.5	29.4	13.7	17.6	3.9	
49		5	4	19	8	11	4	3.07
		9.8	7.8	37.3	15.7	21.6	7.8	
50		1	4	18	14	13	1	3.60
		2.0	7.8	35.3	27.5	25.5	2.0	
51		1	2	15	20	9	4	3.43
		2.0	3.9	29.4	39.2	17.6	7.8	
52		2	2	20	17	8	2	3.41
		3.9	3.9	39.2	33.3	15.7	3.9	
53		1	6	15	11	11	7	3.07
		2.0	11.8	29.4	21.6	21.6	13.7	
54		7	19	19	2	1	3	2.25
		13.7	37.3	37.3	3.9	2.0	5.9	
55		3	6	18	12	12	0	3.47
		5.9	11.8	35.3	23.5	23.5	0	
56		0	2	19	17	12	1	3.70
		0	3.9	37.3	33.3	23.5	2.0	
57		0	4	21	16	8	2	3.43
		0	7.8	41.2	31.4	15.7	3.9	
58		0	8	19	8	13	3	3.33
		0	15.7	37.3	15.7	25.5	5.9	
59		2	5	23	5	3	13	2.27
		3.9	9.8	45.1	9.8	5.9	25.5	
60		15	12	12	4	2	6	1.98
		29.4	23.5	23.5	7.8	3.9	11.8	
61		1	6	18	16	6	4	3.15
		2.0	11.8	35.3	31.4	11.8	7.8	
62		5	8	22	9	1	6	2.51
		9.8	15.7	43.1	17.6	2.0	11.8	
63		0	3	13	20	14	1	3.82
		0	5.9	25.5	39.2	27.5	2.0	
64		1	2	14	19	14	1	3.78
		2.0	3.9	27.5	37.3	27.5	2.0	
65		6	9	17	9	5	5	2.66
		11.8	17.6	33.3	17.6	9.8	9.8	
66		0	3	14	13	17	4	3.62
		0	5.9	27.5	25.5	33.3	7.8	

Table 7

Summary of Item Means/District

Level of Importance

Item	Districts				
	Dade	Broward	Sarasota	St. Johns	Suwannee
1	4.57	4.30	4.29	3.83	4.25
2	4.85	4.20	4.20	4.50	4.25
3	4.42	3.90	4.45	4.33	4.25
4	4.49	4.10	4.20	4.50	4.00
5	4.14	3.50	3.95	4.33	3.75
6	4.57	3.30	3.83	4.33	4.00
7	3.00	3.30	3.75	4.50	4.25
8	3.71	3.40	3.50	4.00	4.00
9	4.43	3.50	3.40	4.50	4.00
10	4.28	3.00	4.04	4.66	4.25
11	4.28	3.30	3.83	4.66	4.00
12	4.42	3.20	3.91	4.33	4.25
13	4.57	3.00	3.91	4.33	4.00
14	3.85	3.30	3.50	4.16	4.00
15	3.42	3.20	3.50	3.33	2.50
16	4.57	3.40	4.16	4.33	4.25
17	4.42	3.20	4.16	4.50	4.00
18	2.71	2.90	3.70	4.16	3.50
19	4.57	3.40	4.33	4.33	4.25
20	3.28	3.20	3.58	4.00	3.25
21	2.42	3.10	3.29	4.36	2.75
22	4.14	3.40	3.54	4.16	4.00
23	4.14	3.80	3.41	4.16	2.50
24	3.57	3.30	3.66	4.16	3.00
25	3.42	3.50	3.37	4.66	3.50
26	4.42	3.70	3.75	4.16	3.75
27	3.71	3.30	3.66	4.16	3.75
28	3.71	3.50	3.20	4.16	3.00
29	2.28	3.30	2.79	3.66	3.25
30	2.71	3.30	3.00	3.33	2.75
31	4.28	3.60	3.62	3.66	3.75

Table 7 (continued)

Item	Districts				
	Dade	Broward	Sarasota	St. Johns	Suwannee
32	4.28	4.10	4.16	4.33	4.25
33	3.14	2.60	2.58	3.66	3.25
34	4.14	3.70	4.12	4.50	4.25
35	4.28	3.90	3.87	4.50	4.00
36	3.14	3.30	3.00	3.50	3.25
37	2.42	3.40	3.04	3.00	3.50
38	3.00	3.80	2.95	4.16	3.50
39	2.71	3.60	3.12	4.16	3.75
40	3.71	3.90	3.12	4.16	3.25
41	3.71	4.00	3.75	4.16	3.50
42	4.42	4.20	3.45	4.33	3.00
43	4.57	4.00	4.25	4.50	4.00
44	3.57	3.50	2.83	3.83	3.50
45	4.14	3.50	3.45	4.00	4.25
46	4.14	3.60	3.33	4.50	4.25
47	3.00	3.20	2.78	3.00	3.00
48	3.71	3.20	3.37	3.83	3.75
49	3.57	2.90	3.12	3.83	2.75
50	4.28	3.70	3.91	4.50	4.00
51	2.14	3.20	3.58	3.83	3.75
52	3.71	3.30	3.62	3.33	3.75
53	2.00	3.10	3.33	3.50	4.00
54	2.71	3.30	2.95	3.33	3.50
55	4.42	3.20	3.95	4.66	4.00
56	4.14	3.60	3.66	4.33	4.50
57	4.14	3.30	3.33	4.16	4.00
58	3.00	3.30	2.95	3.66	3.75
59	3.00	2.70	2.37	2.83	4.00
60	2.14	2.90	2.12	3.00	2.50
61	4.14	3.40	3.29	4.00	3.75
62	3.14	3.40	3.04	4.00	3.75
63	4.14	3.50	3.54	4.50	4.25

Table 7 (continued)

	Districts				
Item	Dade	Broward	Sarasota	St. Johns	Suwannee
64	4.14	3.50	3.75	4.33	4.25
65	4.00	3.60	2.95	4.33	3.75
66	2.85	3.00	2.75	3.66	3.75
	n=7	n=10	n=24	n=6	n=4

Table 8

Summary of Item Means/District

Level of Achievement

Item	Districts				
	Dade	Broward	Sarasota	St. Johns	Suwannee
1	4.14	4.40	4.08	4.16	4.25
2	4.42	4.20	4.08	4.66	4.00
3	4.14	3.70	3.45	4.50	4.00
4	4.00	4.00	3.41	4.66	3.75
5	4.43	3.90	2.87	4.00	3.25
6	3.71	3.70	2.87	4.33	3.50
7	2.57	3.80	2.79	4.33	2.75
8	4.14	3.80	3.58	4.16	3.00
9	4.43	3.80	3.54	4.50	4.25
10	4.42	3.80	3.45	4.66	4.00
11	4.42	3.80	3.12	4.50	3.75
12	4.00	3.40	3.12	4.00	3.50
13	4.57	3.50	3.37	4.16	3.75
14	4.00	3.00	2.79	4.00	3.50
15	2.85	2.30	3.25	2.83	3.00
16	4.42	3.30	3.70	4.66	3.25
17	3.71	3.60	3.54	4.50	3.75
18	3.14	3.80	3.33	4.16	3.25
19	3.71	3.60	3.58	4.33	4.00
20	3.29	3.40	3.33	4.16	3.75
21	2.42	2.60	2.50	4.33	3.00
22	4.28	3.90	3.41	4.50	3.50
23	2.42	2.60	1.95	4.66	2.25
24	3.57	3.60	3.25	4.16	3.50
25	2.85	3.80	3.33	4.50	3.50
26	3.71	2.50	2.54	3.83	3.75
27	3.85	3.50	2.83	4.50	3.25
28	3.42	3.50	2.08	4.00	2.50
29	2.14	3.20	1.87	2.16	2.50
30	1.71	2.60	2.08	3.00	2.25
31	4.28	3.50	2.58	3.66	2.75

Table 8 (continued)

Item	Districts				
	Dade	Broward	Sarasota	St. Johns	Suwannee
32	4.28	3.30	3.33	4.16	3.50
33	2.85	3.50	3.16	2.83	3.00
34	4.00	4.20	3.83	4.66	3.25
35	4.42	3.50	3.83	4.66	2.75
36	2.85	2.30	2.08	2.83	2.75
37	2.57	3.30	3.12	3.50	3.50
38	2.71	2.80	2.29	4.33	3.00
39	2.28	2.40	2.12	3.50	2.75
40	4.42	3.50	3.08	4.16	3.25
41	3.42	3.40	3.20	4.16	3.75
42	4.57	3.60	3.54	4.50	4.25
43	3.71	3.10	3.12	3.83	3.50
44	2.57	2.80	2.91	3.66	3.50
45	3.00	3.50	2.95	4.16	3.75
46	4.14	3.70	3.08	4.50	3.50
47	1.85	2.60	1.62	1.83	2.50
48	2.71	3.50	2.70	3.50	2.50
49	2.14	3.50	2.87	4.16	3.25
50	4.00	3.50	3.41	4.16	3.50
51	2.57	3.30	3.73	3.83	3.75
52	4.28	3.40	3.16	3.33	3.50
53	1.71	2.80	3.41	3.66	3.25
54	2.14	2.70	2.00	2.50	2.50
55	4.14	3.40	3.20	4.00	3.25
56	4.00	3.50	3.58	4.33	3.50
57	3.85	3.50	3.16	4.16	3.00
58	3.85	3.40	3.16	3.50	3.00
59	2.00	2.80	1.83	3.16	2.75
60	2.14	1.90	1.87	2.50	1.75
61	4.14	3.10	2.79	3.83	2.75
62	1.85	2.90	2.20	3.33	3.25
63	4.00	3.70	3.70	4.50	3.50

Table 8 (continued)

Item	Districts				
	Dade	Broward	Sarasota	St. Johns	Suwannee
64	4.14	3.60	3.66	4.16	3.75
65	2.85	3.60	1.91	3.50	3.25
66	3.00	3.90	3.45	4.50	3.75
	n=7	n=10	n=24	n=6	n=4

Table 9

Summary of Item Means/Instructional Area

Level of Importance

Item	Agriculture	Business Education	Distributive Education	Diversified Occupations	Health and Public Service	Home Economics	Industrial Education
1	4.16	4.28	4.50	3.87	4.57	4.20	4.35
2	4.33	4.28	4.25	4.37	3.28	4.80	4.71
3	4.16	4.28	4.25	4.50	4.42	4.40	4.21
4	4.33	4.28	4.75	4.50	3.57	4.20	4.21
5	3.33	4.00	3.75	4.25	3.57	4.40	4.00
6	4.16	4.00	4.00	4.25	3.42	4.60	3.50
7	4.50	4.14	2.75	3.50	3.57	4.20	3.35
8	4.50	3.71	4.25	2.75	3.14	4.20	3.50
9	4.33	3.85	4.75	3.75	3.14	[illegible]	[illegible]
10	4.50	[illegible]	4.25	4.00	3.42	[illegible]	3.85
11	[illegible]		4.50	3.75	3.28	3.80	3.78
12	4.50	3.85	4.50	4.37	3.00	3.80	3.78
13	4.33	4.00	4.50	4.12	2.71	3.80	3.92
14	3.50	3.71	3.00	3.87	3.28	4.00	3.42
15	2.33	3.57	3.00	3.62	3.71	3.40	3.35
16	4.33	4.14	4.50	4.00	3.14	4.00	4.42
17	4.33	4.00	4.50	3.62	3.28	4.20	4.35
18	4.00	3.71	3.50	3.25	3.14	3.40	3.35
19	4.33	4.00	4.75	4.12	3.57	4.20	4.35
20	2.66	3.57	3.50	3.75	3.57	4.00	3.42
21	2.33	3.57	2.75	3.37	3.00	3.80	3.07
22	3.83	4.14	4.25	3.00	3.14	3.40	4.07
23	2.33	3.71	3.50	3.75	3.71	3.80	3.71
24	3.83	3.85	3.75	3.50	3.71	3.80	3.21
25	3.16	3.28	3.00	3.37	3.85	3.80	3.50
26	3.33	4.00	3.50	4.37	4.42	4.20	3.50
27	4.16	3.42	4.00	3.75	4.28	3.80	3.07
28	3.00	3.57	4.00	3.75	3.85	3.80	2.85
29	2.83	3.00	3.00	3.62	3.85	3.60	1.92
30	2.50	3.42	2.00	3.25	3.85	3.40	2.71
31	4.16	3.71	4.00	4.00	4.00	3.80	3.14

Table 9 (continued)

Item	Agriculture	Business Education	Distributive Education	Diversified Occupations	Health and Public Service	Home Economics	Industrial Education
32	4.33	4.28	4.25	3.62	4.28	4.20	4.35
33	3.33	2.85	1.00	2.87	3.14	3.60	2.71
34	4.50	3.14	4.50	3.75	4.42	4.20	4.28
35	4.66	4.00	4.25	3.12	4.42	4.20	3.92
36	2.66	2.85	2.75	3.50	4.00	3.40	2.92
37	2.83	2.85	2.00	3.37	4.14	3.28	
38	2.50	4.00	2.50	3.25	4.14		2.92
39	3.16	3.57	3.50	3.50	4.1	3.60	2.64
40	3.00	4.28	3.75	3.37	4.00	4.00	2.85
41	4.16	3.71	3.75	4.25	4.28	3.80	3.28
42	3.50	4.14	4.00	3.62	4.28	4.20	3.71
43	4.50	4.28	4.00	3.87	4.28	4.20	4.42
44	3.16	3.00	2.75	3.00	4.42	3.80	2.85
45	3.50	4.00	3.75	3.37	4.00	4.20	3.42
46	4.50	4.00	4.25	2.50	4.14	4.00	3.42
47	2.50	2.85	2.50	3.00	3.57	3.40	2.75
48	4.16	3.42	2.50	3.25	4.42	3.80	3.00
49	2.83	3.14	2.50	3.62	4.28	3.40	2.71
50	4.33	4.00	4.00	4.00	4.28	4.00	3.71
51	4.16	3.14	2.00	3.50	4.14	3.60	2.92
52	3.50	2.85	3.75	2.87	4.14	3.80	3.28
53	3.50	3.14	1.50	4.12	4.14	3.60	2.35
54	3.16	2.57	2.50	3.62	3.71	3.60	2.64
55	4.50	3.42	3.75	4.25	4.42	4.00	3.64
56	4.66	4.00	4.25	3.12	4.14	3.60	3.71
57	3.50	3.28	4.00	3.50	4.00	3.80	3.42
58	3.00	3.00	2.75	3.12	4.00	3.60	2.92
59	2.50	2.85	1.50	3.25	3.28	3.00	2.35
60	2.50	2.85	1.50	2.37	3.14	2.20	2.14
61	3.33	4.00	3.50	3.00	4.00	4.20	3.28
62	3.50	3.71	2.50	3.37	4.00	3.80	2.64
63	4.50	4.00	4.00	2.87	4.14	3.80	3.64
64	4.33	4.00	3.75	3.25	3.85	4.00	3.92

Table 9 (continued)

Item	Agriculture	Business Education	Diatributive Education	Diversified Occupations	Health and Public Service	Home Economics	Industrial Education
65	3.16	4.00	4.00	3.62	4.28	3.80	2.50
66	2.83	3.14	1.75	3.25	4.14	3.60	2.42
	n=6	n=7	n=4	n=8	n	n=5	n=14

Table 10

Summary of Item Means/Instructional Area

Level of Achievement

Item	Agriculture	Business Education	Distributive Education	Diversified Occupations	Health and Public Service	Home Economics	Industrial Education
1	4.16	4.28	4.75	3.75	3.71	4.40	4.35
2	4.33	4.28	4.50	3.87	3.85	3.40	4.71
3	4.00	4.00	4.50	2.62	3.57	3.20	4.28
4	4.16	3.57	4.75	2.62	3.42	3.40	4.42
5	3.00	3.85	4.50	2.12	2.85	4.00	4.00
6	3.83	4.00	4.25	2.50	2.71	3.60	3.35
7	3.66	3.71	2.75	2.12	3.00	3.20	3.35
8	3.83	3.71	4.25	2.75	3.71	4.00	4.00
9	4.50	3.71	4.50	2.75	3.42	3.60	4.50
10	4.33	4.00	4.50	2.75	3.71	3.80	4.07
11	4.16	3.85	4.50	2.12	3.42	4.60	4.07
12	4.00	3.57	4.00	2.75	2.71	3.40	3.71
13	4.16	4.14	4.50	2.75	2.85	3.60	4.00
14	3.33	3.28	3.50	2.25	3.00	3.80	3.42
15	2.33	3.28	1.50	4.25	2.85	3.20	2.64
16	4.00	4.14	4.75	2.50	3.28	3.80	4.28
17	4.16	3.71	4.25	2.50	3.28	3.40	4.35
18	3.50	3.71	3.75	2.75	3.28	2.20	3.92
19	4.16	3.85	4.75	2.75	3.00	4.00	4.50
20	3.16	3.71	5.00	3.87	2.85	3.00	3.28
21	2.00	3.57	3.75	2.37	2.42	3.00	2.35
22	3.66	4.00	4.50	2.75	3.28	3.60	4.35
23	2.16	3.00	2.75	1.37	2.00	3.00	2.57
24	3.83	3.85	4.50	2.87	3.00	2.60	3.70
25	3.83	3.57	3.50	3.25	3.57	2.60	3.78
26	3.16	3.14	2.50	1.62	3.28	2.80	3.50
27	4.00	3.28	4.50	2.37	3.00	3.00	3.57
28	3.16	2.71	3.75	1.75	2.42	3.00	3.14
29	1.83	2.57	2.75	2.12	2.28	2.80	2.00
30	2.00	3.00	2.00	1.75	1.85	2.60	2.48
31	3.33	3.42	4.00	1.87	3.00	3.20	3.42

Table 10 (continued)

Item	Agriculture	Business Education	Distributive Education	Diversified Occupations	Health and Public Service	Home Economics	Industrial Education
32	3.66	3.85	4.50	2.12	3.42	3.40	4.07
33	3.50	3.14	3.25	3.50	3.42	2.20	2.92
34	4.00	3.71	4.75	3.37	3.71	3.80	4.42
35	4.00	3.85	4.50	2.75	3.85	3.80	4.28
36	2.00	1.57	2.25	2.25	2.85	2.60	2.71
37	3.16	2.71	3.00	3.37	3.85	3.20	2.92
38	2.50	3.71	2.75	2.12	2.85	2.80	2.64
39	2.33	2.85	3.25	1.75	2.42	2.60	2.28
40	2.83	4.00	4.50	2.87	3.14	4.00	3.71
41	3.83	3.42	4.75	2.37	3.14	3.20	3.71
42	3.33	4.14	4.75	3.12	3.42	4.20	4.21
43	3.66	3.00	4.50	2.37	3.00	3.40	3.64
44	3.00	3.14	2.25	2.00	3.71	2.80	3.35
45	3.16	3.71	3.75	3.00	3.14	3.60	3.07
46	4.16	3.85	4.00	2.12	3.71	3.80	3.64
47	2.00	1.85	2.00	1.37	2.28	2.20	2.00
48	2.66	3.42	3.75	2.87	3.28	2.40	2.64
49	2.83	3.42	3.75	2.25	3.71	3.20	2.92
50	4.00	3.57	4.50	2.50	3.28	3.20	4.14
51	3.83	3.14	3.00	3.14	3.57	3.40	3.85
52	2.83	3.28	4.50	2.50	3.14	3.60	4.00
53	2.33	4.14	1.75	3.25	3.42	3.60	2.78
54	2.16	2.28	2.25	1.50	2.85	2.20	2.42
55	4.00	3.28	4.25	2.12	3.28	3.00	4.14
56	4.00	3.85	4.50	3.00	2.85	3.40	4.21
57	3.00	3.28	4.00	3.12	3.00	3.20	4.00
58	3.00	2.71	4.50	2.37	3.85	3.20	3.78
59	1.66	3.42	1.50	2.00	2.71	2.20	2.14
60	2.16	2.00	1.75	2.25	2.14	1.80	1.78
61	2.66	3.42	3.25	2.87	2.71	3.60	3.42
62	2.50	3.57	2.00	2.00	2.57	2.60	2.35
63	4.00	4.00	4.50	2.87	3.42	3.40	4.35
64	4.00	3.85	4.25	3.12	3.14	3.80	4.21

Table 10 (continued)

Item	Agriculture	Business Education	Distributive Education	Diversified Occupations	Health and Public Service	Home Economics	Industrial Education
65	3.00	2.57	4.50	2.25	2.57	3.00	2.21
66	3.66	3.28	5.00	2.87	4.28	3.80	3.42
	n=6	n=7	n=4	n=8	n=7	n=5	n=14

Table 11

Summary of Item Means/Sex

Level of Importance

Item	Male	Female		Male	Female
1	4.20	4.35	34	4.20	4.00
2	4.40	4.27	35	4.00	4.04
3	4.20	4.42	36	2.92	3.38
4	4.20	4.27	37	2.76	3.35
5	3.72	4.12	38	2.68	3.92
6	3.76	4.04	39	2.88	3.77
7	3.52	3.85	40	2.96	4.00
8	3.64	3.57	41	3.52	4.12
9	4.20	3.85	42	3.72	4.04
10	3.96	3.96	43	4.32	4.19
11	4.00	3.81	44	3.16	3.31
12	4.00	3.85	45	3.44	3.92
13	3.96	3.81	46	3.60	3.81
14	3.48	3.77	47	2.63	3.23
15	2.88	3.77	48	3.44	3.50
16	4.28	3.92	49	2.96	3.42
17	4.16	3.92	50	3.96	4.04
18	3.52	3.38	51	3.08	3.62
19	4.28	4.07	52	3.48	3.62
20	3.16	3.81	53	2.76	3.58
21	2.76	3.50	54	2.68	3.46
22	3.88	3.54	55	3.84	4.08
23	3.28	3.81	56	3.96	3.77
24	3.28	3.88	57	3.44	3.73
25	3.24	3.65	58	2.92	3.42
26	3.56	4.19	59	2.48	2.92
27	3.52	3.81	60	2.20	2.62
28	3.00	3.85	61	3.24	3.85
29	2.16	3.73	62	2.88	3.69
30	3.56	3.50	63	3.80	3.77
31	3.48	3.96	64	3.96	3.77
32	4.24	4.15	65	2.88	4.00
33	2.72	2.96	66	2.72	3.27
	n=26	n=26		n=26	n=26

Table 12

Summary of Item Means/Sex

Level of Achievement

Item	Male	Female	Item	Male	Female
1	4.24	4.12	34	4.12	3.85
2	4.44	4.00	35	4.00	3.73
3	3.96	3.58	36	2.64	2.12
4	4.16	3.42	37	2.92	3.38
5	3.60	3.31	38	2.32	3.15
6	3.40	3.35	39	2.44	2.38
7	3.12	3.15	40	3.56	3.50
8	3.72	3.73	41	3.64	3.23
9	3.42	3.46	42	4.00	3.73
10	4.00	3.69	43	3.68	2.96
11	3.88	3.42	44	3.04	2.92
12	3.60	3.27	45	3.12	3.42
13	3.76	3.62	46	3.52	3.57
14	3.44	2.96	47	2.08	1.80
15	2.56	3.31	48	2.68	3.19
16	4.04	3.58	49	2.80	3.34
17	4.00	3.42	50	3.92	3.31
18	3.76	3.04	51	3.58	3.42
19	4.12	3.62	52	3.64	3.19
20	3.32	3.62	53	2.52	3.62
21	2.36	2.96	54	2.28	2.23
22	4.04	3.50	55	4.00	2.96
23	2.16	2.58	56	4.04	3.38
24	3.72	3.27	57	3.64	3.23
25	3.56	3.46	58	3.56	3.12
26	3.20	2.69	59	2.08	2.46
27	3.56	3.12	60	2.04	1.92
28	3.00	2.62	61	3.12	3.19
29	2.12	2.38	62	2.44	2.57
30	2.16	2.35	63	4.12	3.54
31	3.32	2.96	64	4.04	3.54
32	3.72	3.42	65	2.76	2.57
33	3.28	3.00	66	3.56	3.69
	n=26	n=26		n=26	n=26

Table 13

Summary of Item Means/Instructional Area/District

Level of Importance

Item	Agriculture					Business Education					Distributive Education					Diversified Occupations					Health and Public Service					Home Economics					Industrial Education				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
1			4.0	4.0	4.5			3.6	4.6	2.0		5.0	4.5		4.0			3.8		4.0		5.0	4.5	4.0			5.0	5.0	5.0	1.0		4.2	4.0	4.4	5.0
2			4.5	4.0	4.5			3.6	4.6	5.0		5.0	4.0		4.0			4.4		4.0		4.0	2.5	5.0			5.0	5.0	5.0	4.0		4.7	5.0	4.5	5.0
3			4.5	3.5	4.5			4.0	4.3	5.0		5.0	4.0		4.0			4.5		4.0		4.5	4.2	5.0			4.0	5.0	5.0	4.0		4.5	2.5	4.4	5.0
4			4.5	4.5	4.0			4.0	4.3	5.0		5.0	5.0		4.0			4.5		4.0		4.0	3.2	4.0			3.5	5.0	5.0	4.0		4.7	3.0	4.1	5.0
5			2.0	4.0	4.0			3.6	4.0	5.0		5.0	3.5		3.0			4.2		4.0		3.5	3.5	4.0			4.0	5.0	5.0	4.0		4.0	2.5	4.2	5.0
6			4.5	4.0	4.0			3.6	4.0	5.0		5.0	3.5		4.0			4.2		4.0		2.0	4.0	4.0			4.5	5.0	5.0	4.0		4.5	3.0	2.8	5.0
7			4.5	4.5	4.5			3.6	4.3	5.0		0.0	3.5		4.0			3.4		4.0		2.0	4.2	4.0			3.5	5.0	5.0	4.0		3.5	3.0	3.1	5.0
8			4.5	4.0	5.0			3.6	3.6	4.0		5.0	4.5		3.0			2.7		3.0		1.5	3.7	4.0			4.0	5.0	4.0	4.0		3.2	3.0	3.7	4.0
9			4.5	4.5	4.0			3.3	4.0	5.0		5.0	5.0		4.0			3.7		4.0		2.0	3.5	4.0			4.0	5.0	5.0	4.0		4.5	3.0	4.2	5.0
10			4.5	4.5	4.5			3.3	4.3	5.0		5.0	4.0		4.0			4.0		4.0		1.5	4.0	5.0			4.0	3.0	5.0	4.0		4.2	3.0	3.7	5.0
11			4.5	5.0	4.0			3.6	4.3	5.0		5.0	4.5		4.0			3.7		4.0		2.0	3.7	4.0			3.5	3.0	5.0	4.0		4.5	3.0	3.4	5.0
12			4.5	4.0	5.0			3.3	4.0	5.0		5.0	5.0		3.0			4.4		4.0		2.0	3.2	4.0			3.5	3.0	5.0	4.0		4.7	2.5	3.4	5.0
13			4.5	4.0	4.5			3.3	4.3	5.0		5.0	5.0		3.0			4.1		4.0		1.5	3.0	4.0			4.5	1.0	5.0	4.0		4.5	3.0	3.7	5.0
14			2.0	4.0	4.5			3.3	3.6	5.0		4.0	4.5		3.0			3.8		4.0		1.5	4.0	4.0			4.0	3.0	5.0	4.0		3.7	4.0	3.0	4.0
15			1.0	3.0	3.0			4.0	2.6	5.0		2.0	3.5		3.0			4.0		1.0		2.5	4.5	3.0			4.0	3.0	5.0	1.0		3.5	2.5	3.2	5.0
16			4.5	4.0	4.5			3.3	4.6	5.0		5.0	4.5		4.0			4.0		4.0		1.5	3.7	4.0			4.0	3.0	5.0	4.0		4.7	4.5	4.1	5.0
17			4.5	4.0	4.5			3.3	4.3	5.0		4.0	5.0		4.0			3.5		4.0		1.5	4.0	4.0			4.5	3.0	5.0	4.0		4.5	3.0	4.5	5.0
18			4.5	4.0	3.5			3.6	3.3	5.0		4.0	3.5		3.0			3.1		4.0		2.0	3.5	4.0			3.5	1.0	5.0	4.0		2.0	3.0	4.1	4.0

Table 13 (continued)

Item	Agriculture					Business Education					Distributive Education					Diversified Occupations					Health and Public Service					Home Economics					Industrial Education				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
19			4.5	4.0	4.5			3.6	4.0	5.0			5.0	5.0	4.0			4.1		4.0			2.0	4.2	4.0			4.5	3.0	5.0	4.0			4.5	3.0	4.5	5.0
20			3.0	3.5	2.5			3.3	3.3	5.0			1.0	4.5	4.0			3.7		4.0			2.0	4.0	5.0			4.0	5.0	4.0	3.0			3.5	2.0	3.7	4.0
21			1.0	3.0	3.0			3.3	3.6	4.0			3.0	3.5	1.0			3.2		4.0			1.5	4.0	2.0			3.0	3.0	5.0	5.0			2.0	4.0	3.1	5.0
22			4.0	3.5	4.0			3.6	4.3	5.0			4.0	4.5	4.0			2.8		4.0			1.5	3.7	4.0			4.0	5.0	0.0	4.0			4.2	3.0	4.1	5.0
23			1.0	3.5	2.5			3.6	3.6	4.0			4.0	3.5	3.0			4.0		2.0			4.0	4.0	2.0			4.0	3.0	4.0	4.0			4.2	4.5	3.0	5.0
24			4.5	4.0	3.0			3.0	4.3	5.0			5.0	4.0	2.0			3.4		4.0			4.0	3.7	3.0			3.5	3.0	5.0	4.0			3.2	2.5	3.1	5.0
25			4.5	2.0	3.0			3.0	3.0	5.0			0.0	4.0	4.0			3.2		4.0			4.5	3.5	4.0			3.5	3.0	5.0	4.0			4.2	3.0	3.0	5.0
26			2.0	4.0	4.0			3.3	4.3	5.0			4.0	3.5	3.0			4.4		4.0			4.5	4.5	4.0			4.5	3.0	5.0	4.0			4.5	4.0	2.7	4.0
27			4.5	4.0	4.0			2.6	4.0	4.0			5.0	4.0	3.0			3.7		4.0			4.5	4.2	4.0			3.5	3.0	5.0	4.0			3.5	2.5	2.7	5.0
28			2.5	4.0	2.5			3.0	3.6	5.0			4.0	4.5	3.0			3.7		4.0			4.0	3.7	4.0			3.5	3.0	5.0	4.0			3.7	3.0	2.1	4.0
29			2.5	3.0	3.0			3.0	3.0	3.0			1.0	4.0	3.0			3.5		4.0			3.5	4.0	4.0			3.5	3.0	4.0	4.0			2.0	3.0	1.1	5.0
30			2.0	3.0	2.5			3.3	3.3	4.0			0.0	2.5	3.0			3.2		3.0			4.0	4.0	3.0			3.5	1.0	5.0	4.0			3.0	4.5	2.0	2.0
31			4.5	4.0	4.0			3.3	4.0	4.0			5.0	4.0	3.0			4.0		4.0			4.5	4.0	3.0			3.5	3.0	5.0	4.0			4.5	3.0	2.4	3.0
32			4.5	4.0	4.5			3.6	4.6	5.0			5.0	4.0	4.0			3.8		4.0			4.5	4.2	4.0			3.5	5.0	5.0	4.0			4.5	4.0	4.2	5.0
33			3.0	3.5	3.5			2.6	2.6	4.0			1.0	.5	2.0			2.7		4.0			5.0	2.2	3.0			3.5	3.0	4.0	4.0			3.5	2.0	2.2	4.0
34			4.5	4.5	4.5			2.6	3.0	5.0			5.0	4.5	4.0			3.7		4.0			4.5	4.5	4.0			3.5	5.0	5.0	4.0			4.2	3.0	4.5	5.0
35			4.5	4.5	5.0			3.3	4.3	5.0			5.0	4.0	4.0			3.2		2.0			4.5	4.5	4.0			3.5	5.0	5.0	4.0			4.5	3.5	3.5	5.0
36			2.0	2.5	3.5			3.0	2.0	5.0			3.0	3.0	2.0			3.4		4.0			4.0	4.0	4.0			3.0	3.0	4.0	4.0			3.2	3.5	2.5	3.0
37			2.0	2.5	4.0			3.0	2.3	4.0			0.0	3.0	2.0			3.2		4.0			4.5	4.2	3.0			3.0	3.0	4.0	3.0			2.7	3.5	2.5	3.0
38			1.0	3.0	3.5			3.3	4.3	5.0			0.0	3.5	3.0			3.1		4.0			4.5	4.0	4.0			3.5	3.0	5.0	5.0			3.5	4.5	1.8	5.0

Table 13 (continued)

Item	Agriculture					Business Education					Distributive Education					Diversified Occupations					Health and Public Service					Home Economics					Industrial Education				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
39			1.5	4.0	4.0			3.3	3.6	4.0			4.0	3.5	3.0			3.4		4.0			4.0	4.2	4.0			3.5	3.0	4.0	4.0			2.0	4.0	2.2	5.0
40			2.0	3.5	3.5			4.0	4.3	5.0			5.0	4.0	2.0			3.2		4.0			4.0	4.0	4.0			4.0	3.0	5.0	4.0			3.2	4.0	2.0	5.0
41			4.5	4.0	4.0			4.0	3.0	5.0			5.0	4.0	2.0			4.2		4.0			4.5	4.2	4.0			4.0	3.0	5.0	3.0			3.2	4.0	2.8	5.0
42			2.5	4.0	4.0			4.0	4.0	5.0			5.0	2.5	4.0			3.5		4.0			5.0	4.0	4.0			3.5	5.0	5.0	4.0			4.7	2.0	2.8	5.0
43			1.5	4.5	4.5			4.0	4.3	5.0			5.0	4.0	3.0			3.8		4.0			4.5	4.2	4.0			4.5	3.0	5.0	4.0			4.5	4.0	4.4	5.0
44			2.0	4.0	3.5			4.0	1.6	4.0			5.0	1.5	3.0			2.8		4.0			4.5	4.5	4.0			3.5	3.0	5.0	4.0			3.2	4.0	2.2	3.0
45			2.5	3.5	4.5			3.3	4.3	5.0			4.0	3.5	4.0			3.2		4.0			4.5	4.0	3.0			4.5	3.0	5.0	4.0			4.0	3.0	3.0	5.0
46			4.5	4.5	4.5			3.3	4.3	5.0			4.0	4.5	4.0			2.2		4.0			4.0	4.2	4.0			4.0	3.0	5.0	4.0			4.2	3.0	2.8	5.0
47			1.5	2.5	3.5			3.3	2.0	4.0			1.0	3.0	3.0			3.1		2.0			3.5	3.7	3.0			3.5	3.0	4.0	3.0			3.2	3.0	2.4	3.0
48			4.5	4.0	4.0			3.3	3.0	5.0			4.0	1.5	3.0			3.1		4.0			5.0	4.5	3.0			3.5	3.0	5.0	4.0			3.7	3.0	2.5	3.0
49			2.0	4.0	2.5			2.6	3.0	5.0			5.0	1.5	2.0			3.5		4.0			4.5	4.2	4.0			2.0	3.0	5.0	3.0			3.5	3.0	2.1	3.0
50			4.5	4.5	4.0			3.3	4.3	5.0			5.0	3.5	4.0			4.0		4.0			4.5	4.2	4.0			4.0	3.0	5.0	4.0			4.2	4.0	3.1	5.0
51			4.5	3.5	4.5			3.3	3.0	3.0			0.0	3.0	2.0			3.4		4.0			4.5	4.0	4.0			4.0	1.0	5.0	4.0			1.7	3.0	3.2	5.0
52			2.5	4.0	4.0			2.6	3.3	2.0			5.0	3.5	3.0			3.8		4.0			4.5	4.2	3.0			3.5	3.0	5.0	4.0			3.5	3.0	3.2	3.0
53			2.0	4.0	4.5			3.3	3.0	3.0			0.0	1.5	3.0			4.1		4.0			4.5	4.0	4.0			3.5	3.0	5.0	3.0			1.7	3.0	2.4	3.0
54			2.0	3.0	4.5			3.0	2.0	3.0			0.0	2.5	3.0			3.8		2.0			4.0	3.7	3.0			3.0	3.0	5.0	4.0			3.2	3.0	2.0	4.0
55			4.5	4.5	4.5			2.3	4.0	5.0			5.0	3.5	3.0			4.2		4.0			4.5	4.2	5.0			4.0	3.0	5.0	4.0			4.5	3.0	3.1	5.0
56			4.5	4.5	5.0			3.3	4.3	5.0			5.0	4.0	4.0			3.0		4.0			4.5	4.2	3.0			3.0	3.0	5.0	4.0			4.5	3.0	3.2	5.0
57			2.0	4.0	4.5			2.6	3.6	4.0			5.0	4.0	3.0			3.4		4.0			4.0	4.0	4.0			3.5	3.0	5.0	4.0			4.2	3.0	2.8	5.0
58			2.0	3.0	4.0			2.6	3.0	4.0			1.0	3.5	3.0			3.0		4.0			4.5	3.7	4.0			3.5	3.0	5.0	3.0			3.2	3.0	2.4	5.0

Table 13 (continued)

	Agriculture					Business Education					Distributive Education					Diversified Occupations					Health and Public Service					Home Economics					Industrial Education				
Item	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
60			1.0	3.5	3.0			3.3	2.3	3.0			1.0	1.5	2.0			2.4		2.0			3.5	2.7	4.0			2.5	1.0	4.0	1.0			2.2	4.0	1.4	3.0
61			2.0	3.5	4.5			3.3	4.6	4.0			4.0	3.5	3.0			3.0		3.0			4.5	4.0	3.0			4.0	3.0	5.0	5.0			4.2	2.5	2.7	5.0
62			2.5	4.0	4.0			3.3	3.6	5.0			0.0	3.5	3.0			3.2		4.0			4.0	4.0	4.0			3.5	3.0	5.0	4.0			3.7	3.0	1.8	3.0
63			4.5	4.5	4.5			3.3	4.3	5.0			5.0	3.5	4.0			2.7		4.0			4.5	4.0	4.0			3.5	3.0	5.0	4.0			4.2	3.0	3.2	5.0
64			4.0	4.5	4.5			3.3	4.3	5.0			4.0	3.5	4.0			3.1		4.0			4.5	3.7	3.0			4.0	3.0	5.0	4.0			4.2	3.0	3.8	5.0
65			1.0	4.5	4.0			3.3	4.3	5.0			5.0	4.0	3.0			3.5		4.0			4.5	4.2	4.0			3.5	3.0	5.0	4.0			4.0	3.0	1.2	4.0
66			.5	4.0	4.0			3.3	2.6	4.0			1.0	1.5	3.0			3.1		4.0			5.0	3.7	4.0			3.5	3.0	5.0	3.0			3.0	2.0	2.1	3.0
n=	0	0	2	2	2	0	3	3	1	0	1	2	0	0	1	0	0	7	0	1	0	2	4	1	0	2	1	1	1	0	4	2	7	1	0

Legend

A - Dade County

B - Broward County

C - Sarasota County

D - St. Johns County

E - Suwannee County

Table 14

Summary of Item Means/Instructional Area/District

Level of Achievement

Agriculture					Business Education					Distributive Education					Diversified Occupations					Health and Public Service					Home Economics					Industrial Education				
A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
		4.0	4.0	4.5			3.6	4.6	5.0			5.0	5.0	4.0			3.7		4.0		4.0	3.7	3.0			4.0	5.0	5.0	4.0		4.0	5.0	4.2	5.0
		4.5	4.5	4.0			3.6	4.6	5.0			5.0	4.5	4.0			3.8		4.0		3.5	3.7	5.0			3.5	5.0	1.0	4.0		4.7	5.0	4.5	5.0
		4.0	4.0	4.0			3.6	4.0	5.0			5.0	4.5	4.0			2.4		4.0		2.5	3.7	5.0			3.0	3.0	3.0	4.0		4.5	4.5	4.0	5.0
		4.0	5.0	3.5			3.0	3.6	5.0			5.0	5.0	4.0			2.4		2.0		3.0	3.5	4.0			2.5	5.0	3.0	4.0		4.5	5.0	4.1	5.0
		2.0	4.0	3.0			3.6	3.6	5.0			5.0	5.0	3.0			1.8		4.0		2.5	2.7	4.0			4.5	3.0	4.0	4.0		4.2	5.0	3.7	3.0
		4.5	4.0	3.0			3.6	4.0	5.0			5.0	4.0	4.0			2.2		4.0		3.0	2.2	4.0			3.5	3.0	4.0	4.0		3.5	4.5	2.7	5.0
		4.0	4.5	2.5			4.0	3.3	4.0			0.0	3.5	4.0			2.1		2.0		3.0	2.7	4.0			2.5	3.0	4.0	4.0		3.2	5.0	2.7	5.0
		4.5	4.0	3.0			3.6	3.6	4.0			5.0	4.5	3.0			2.7		3.0		3.5	3.7	4.0			3.5	5.0	4.0	4.0		4.2	3.0	4.0	5.0
		4.5	4.5	4.5			3.3	3.6	5.0			5.0	4.5	4.0			2.5		4.0		3.0	3.5	4.0			4.0	3.0	3.0	4.0		4.5	5.0	4.2	5.0
		4.5	4.5	4.0			3.3	4.3	5.0			5.0	4.5	4.0			2.5		4.0		3.0	3.7	5.0			4.0	3.0	4.0	4.0		4.5	5.0	3.4	5.0
		4.5	4.5	3.5			3.6	3.6	5.0			5.0	4.5	4.0			1.8		4.0		3.0	3.5	4.0			4.0	3.0	3.0	4.0		4.5	4.5	3.5	5.0
		4.5	4.0	3.5			3.6	3.0	5.0			5.0	4.0	3.0			2.5		4.0		1.5	3.5	2.0			3.5	3.0	3.0	4.0		4.0	4.5	4.1	5.0
		4.5	4.0	4.0			3.6	4.3	5.0			5.0	5.0	3.0			2.5		4.0		1.5	3.5	3.0			4.5	1.0	4.0	4.0		4.5	5.0	3.2	5.0
		1.5	5.0	3.5			3.3	3.0	4.0			4.0	3.5	4.0			2.0		4.0		1.5	3.5	4.0			4.0	3.0	4.0	4.0		4.0	3.5	3.2	2.0
		1.5	2.5	3.0			3.6	3.0	3.0			1.0	1.5	2.0			4.2		4.0		1.5	3.5	3.0			3.5	3.0	3.0	3.0		3.0	1.5	2.7	3.0
		4.5	5.0	2.5			3.3	4.6	5.0			5.0	5.0	4.0			2.2		4.0		2.0	3.7	4.0			3.5	3.0	5.0	4.0		4.7	3.0	4.2	5.0
		4.5	4.5	3.5			3.3	3.6	5.0			4.0	4.5	4.0			2.2		4.0		2.0	3.7	4.0			3.0	3.0	4.0	4.0		4.0	5.0	4.2	5.0
		4.0	4.0	2.5			3.6	3.3	5.0			4.0	3.5	4.0			2.5		4.0		2.0	3.7	4.0			3.0	1.0	0.0	4.0		3.0	5.0	4.1	4.0

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Table 14 (continued)

Item	Agriculture					Business Education					Distributive Education					Diversified Occupations					Health and Public Service					Home Economics					Industrial Education				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
19			4.5	4.0	4.0			3.6	3.6	5.0			5.0	5.0	4.0			2.5		4.0			1.5	3.5	4.0			4.5	2.0	5.0	4.0			4.7	5.0	4.1	5.0
20			1.0	4.5	4.0			4.0	3.0	5.0			5.0	5.0	5.0			4.1		2.0			2.0	2.7	5.0			3.0	3.0	3.0	3.0			3.0	2.5	3.7	3.0
21			1.0	2.5	2.5			3.6	3.3	4.0			4.0	4.0	3.0			2.1		4.0			1.5	3.0	2.0			3.0	1.0	3.0	5.0			1.7	2.0	2.5	4.0
22			3.5	4.5	4.0			3.3	4.3	5.0			4.0	5.0	4.0			2.5		4.0			2.0	3.7	4.0			4.5	5.0	0.0	4.0			4.2	5.0	4.1	5.0
23			1.0	3.5	2.0			3.3	2.3	4.0			2.0	3.0	3.0			1.2		2.0			2.0	2.0	2.0			3.5	1.0	3.0	4.0			2.0	2.5	2.5	5.0
24			4.0	4.0	3.5			3.3	4.0	5.0			5.0	5.0	3.0			2.7		4.0			2.5	3.2	3.0			3.0	3.0	0.0	4.0			3.5	4.0	3.7	5.0
25			4.0	4.5	3.0			3.3	3.3	5.0			0.0	5.0	4.0			3.1		4.0			3.0	3.7	4.0			3.5	2.0	0.0	4.0			3.2	5.0	3.5	5.0
26			1.5	4.0	4.0			3.0	2.6	5.0			3.0	2.0	3.0			1.2		4.0			2.5	3.5	4.0			2.5	2.0	3.0	4.0			4.5	2.5	3.4	2.0
27			4.0	5.0	3.0			3.3	3.0	4.0			5.0	5.0	3.0			2.1		4.0			2.5	3.0	4.0			2.5	2.0	4.0	4.0			4.2	4.0	2.8	5.0
28			4.0	4.0	1.5			3.0	2.0	4.0			4.0	4.0	3.0			1.4		4.0			2.5	2.2	3.0			2.5	3.0	3.0	4.0			3.7	5.0	2.0	4.0
29			1.5	2.5	1.5			3.0	2.3	2.0			1.0	3.5	3.0			1.8		4.0			2.5	2.2	2.0			2.0	3.0	3.0	4.0			2.5	4.0	1.4	0.0
30			1.5	3.0	1.5			3.3	2.3	4.0			0.0	2.5	3.0			1.5		3.0			2.0	2.0	1.0			2.0	1.0	4.0	4.0			2.0	3.0	2.4	3.0
31			4.0	4.0	2.0			3.3	3.3	4.0			5.0	4.0	3.0			1.5		4.0			2.5	3.2	3.0			3.0	3.0	3.0	4.0			4.7	4.5	2.4	3.0
32			4.5	3.5	3.0			3.3	4.0	5.0			5.0	4.5	4.0			1.8		4.0			2.5	3.7	4.0			3.0	3.0	3.0	4.0			4.5	3.0	4.0	5.0
33			3.0	4.0	3.5			3.6	3.0	2.0			5.0	2.5	3.0			3.7		2.0			4.0	3.5	2.0			2.0	3.0	2.0	2.0			2.7	4.0	2.7	3.0
34			4.5	5.0	2.5			3.3	3.6	5.0			5.0	5.0	4.0			3.2		4.0			3.5	3.7	4.0			3.0	5.0	4.0	4.0			4.2	5.0	4.2	5.0
35			4.5	5.0	2.5			2.6	4.6	5.0			5.0	4.5	4.0			2.8		2.0			3.5	4.0	4.0			4.0	3.0	4.0	4.0			4.5	4.0	4.1	5.0
36			1.5	2.5	2.0			1.0	1.0	5.0			1.0	2.5	3.0			2.0		4.0			2.5	2.7	4.0			2.5	3.0	3.0	2.0			3.5	3.5	2.2	1.0
37			1.5	4.0	4.0			2.6	2.6	3.0			0.0	4.0	4.0			3.5		2.0			3.5	4.0	4.0			4.0	3.0	2.0	3.0			2.5	3.5	3.0	3.0
38			1.5	3.5	2.5			2.3	4.6	5.0			0.0	4.0	3.0			1.8		4.0			2.5	2.7	4.0			3.5	2.0	0.0	5.0			3.0	3.0	2.0	5.0

Table 14 (continued)

Item	Agriculture					Business Education					Distributive Education					Diversified Occupations					Health and Public Service					Home Economics					Industrial Education				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
39			1.5	3.5	2.0			2.3	3.3	3.0			4.0	3.0	3.0			1.4	4.0				2.5	2.2	3.0			1.5	3.0	3.0	4.0			2.2	1.5	2.2	4.0
40			1.5	3.5	3.5			3.6	4.0	5.0			5.0	4.5	4.0			2.7	4.0				3.0	3.0	4.0			4.5	3.0	4.0	4.0			4.2	3.0	3.4	5.0
41			4.0	4.0	3.5			3.0	3.3	5.0			5.0	5.0	4.0			2.1	4.0				2.5	3.2	4.0			3.0	3.0	4.0	3.0			3.2	3.5	3.8	5.0
42			1.5	4.5	4.0			3.3	4.6	5.0			5.0	4.5	5.0			3.0	4.0				3.0	3.5	4.0			4.0	5.0	4.0	4.0			4.7	3.0	4.1	5.0
43			4.0	3.5	3.5			2.6	2.6	5.0			5.0	5.0	3.0			2.1	4.0				2.5	3.0	4.0			3.5	3.0	3.0	4.0			3.5	2.5	4.1	3.0
44			1.5	4.0	3.5			3.0	2.6	5.0			1.0	1.5	5.0			2.0	2.0				3.5	3.7	4.0			3.0	3.0	3.0	2.0			2.7	3.0	2.8	3.0
45			2.0	3.5	4.0			3.3	3.6	5.0			4.0	4.0	3.0			2.8	4.0				3.0	3.2	3.0			3.5	3.0	3.0	5.0			2.5	4.0	2.8	5.0
46			4.5	4.5	3.5			3.3	4.0	5.0			3.0	5.0	3.0			1.8	4.0				3.0	4.0	4.0			4.0	3.0	4.0	4.0			4.5	4.0	2.8	5.0
47			1.0	2.5	2.5			2.6	1.3	1.0			1.0	2.0	3.0			1.2	2.0				2.5	2.2	2.0			1.5	3.0	3.0	2.0			2.2	3.0	1.7	1.0
48			2.0	3.5	2.5			3.0	3.3	5.0			2.0	5.0	3.0			3.0	2.0				4.0	2.7	4.0			2.5	3.0	2.0	2.0			3.0	2.5	2.4	3.0
49			1.0	4.0	3.5			3.0	3.3	5.0			1.0	5.0	4.0			2.2	2.0				4.0	3.5	4.0			3.0	3.0	2.0	5.0			2.0	2.5	3.5	3.0
50			4.5	4.5	3.0			3.3	3.3	5.0			5.0	4.5	4.0			2.2	4.0				2.5	3.7	3.0			3.5	3.0	3.0	3.0			4.0	4.0	4.1	5.0
51			4.5	3.5	3.5			3.3	3.0	3.0			0.0	4.0	4.0			3.0	4.0				2.5	4.0	4.0			4.0	1.0	4.0	4.0			2.5	4.5	4.2	5.0
52			1.5	4.0	3.0			3.3	3.3	3.0			5.0	4.5	4.0			2.2	4.0				2.5	3.2	4.0			3.5	3.0	4.0	4.0			4.5	3.5	4.2	1.0
53			1.5	2.5	3.0			3.3	4.6	5.0			0.0	1.0	5.0			3.4	2.0				4.0	3.2	3.0			3.5	3.0	3.0	5.0			1.2	2.5	3.5	4.0
54			1.5	2.5	2.5			2.6	1.6	3.0			0.0	3.0	3.0			1.4	2.0				2.5	3.2	2.0			2.0	3.0	2.0	2.0			2.7	2.5	2.1	3.0
55			4.5	4.5	3.0			2.6	3.3	5.0			5.0	4.5	3.0			1.8	4.0				2.5	3.2	5.0			3.0	3.0	3.0	3.0			4.5	4.5	4.1	2.0
56			4.0	4.5	3.5			3.3	4.0	5.0			5.0	5.0	3.0			2.8	4.0				2.5	3.0	3.0			3.0	3.0	4.0	4.0			4.2	3.5	4.2	5.0
57			2.0	4.0	3.0			3.3	3.0	4.0			5.0	4.5	2.0			3.0	4.0				3.0	2.7	4.0			3.0	3.0	3.0	4.0			4.0	3.5	4.0	5.0
58			1.5	4.0	3.5			2.6	2.6	3.0			5.0	5.0	3.0			2.4	2.0				4.0	4.0	3.0			2.5	3.0	4.0	4.0			4.2	2.5	4.0	3.0
59			0.0	3.0	2.0			3.6	3.3	3.0			0.0	1.5	3.0			1.7	4.0				2.5	2.7	3.0			2.5	1.0	0.0	5.0			2.2	4.0	1.5	2.0

Table 14 (continued)

Item	Agriculture					Business Education					Distributive Education					Diversified Occupations					Health and Public Service					Home Economics					Industrial Education				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
60			1.0	3.5	2.0		3.3	1.3	1.0		3.0	1.5			1.0			2.2		2.0		2.0	1.7	4.0		2.5	1.0	2.0	1.0		1.7	1.0	2.0	2.0	
61			2.0	3.5	2.5		3.3	3.3	4.0		4.0	3.0			3.0			2.8		3.0		2.5	3.0	2.0		3.5	3.0	3.0	5.0		4.5	3.5	2.5	5.0	
62			1.5	3.0	3.0		3.3	3.3	5.0		0.0	2.5			3.0			1.7		4.0		2.5	2.5	3.0		2.0	3.0	3.0	3.0		2.2	3.0	2.1	3.0	
63			4.5	4.5	3.0		3.3	4.3	5.0		5.0	4.5			4.0			2.7		4.0		3.0	3.5	4.0		3.0	3.0	4.0	4.0		4.2	4.5	4.2	5.0	
64			4.0	4.5	3.5		3.3	4.0	5.0		4.0	4.5			4.0			3.0		4.0		2.5	3.7	2.0		4.0	3.0	4.0	4.0		4.2	4.5	4.0	5.0	
65			1.5	4.5	3.0		3.3	1.6	3.0		5.0	5.0			3.0			2.0		4.0		2.5	2.2	4.0		2.5	3.0	3.0	4.0		2.5	4.0	1.7	1.0	
66			2.5	4.5	4.0		3.3	2.6	5.0		5.0	5.0			5.0			3.0		2.0		4.5	4.5	3.0		3.5	3.0	4.0	5.0		2.2	3.5	3.8	5.0	
n=	0	0	2	2	2	0	3	3	1	0	1	2	0	0	1	0	0	7	0	1	0	2	4	1	0	2	1	1	1	0	4	2	7	1	0

Legend

A - Dade County

B - Broward County

C - Sarasota County

D - St. Johns County

E - Suwannee County

Table 15

Summary of Item Means/Sex/District

Level of Importance

	Dade		Broward		Sarasota		St. Johns		Suwannee	
Item	M	F	M	F	M	F	M	F	M	F
1	4.40	5.00	4.33	4.28	4.09	4.46	4.00	3.75	4.25	
2	4.80	5.00	4.33	4.14	4.36	4.07	4.00	4.75	4.25	
3	4.60	4.00	3.00	4.28	4.45	4.46	3.50	4.75	4.25	
4	4.80	3.50	3.00	4.57	4.27	4.15	4.50	4.50	4.00	
5	4.20	4.00	2.33	4.00	3.81	4.07	4.00	4.50	3.75	
6	4.60	4.50	3.33	3.28	3.36	4.23	4.00	4.50	4.00	
7	2.80	3.50	3.33	3.28	3.45	4.00	4.50	4.50	4.25	
8	3.60	4.00	3.00	3.57	3.63	3.38	4.00	4.00	4.00	
9	4.60	4.00	3.33	3.57	4.27	3.76	4.50	4.50	4.00	
10	4.40	4.00	3.00	3.00	3.81	4.23	4.50	4.75	4.25	
11	4.60	3.50	3.33	3.28	3.72	3.92	5.00	4.50	4.00	
12	4.80	3.50	3.00	3.28	3.81	4,00	4.00	4.50	4.25	
13	4.60	4,50	3.00	3.00	3.90	3.9	4.00	4.50	4.00	
14	3.80	4.00	3.66	3.14		92	4.00	4.25	4.00	
15	3.00	4.00	3.33	3.14		4.15	3.00	3.50	2.50	
16	4.80	4.00	4.00	3.14	4.18	4.15	4.00	4.50	4.25	
17	4.40	4.50	3.00	3.28	4:36	4.00	4.50	4.50	4.00	
18	2.40	3.50	3.33	2.71	4.00	3.46	4.00	4.25	3.50	
19	4.60	4.50	3.33	3.42	4.45	4.23	4.00	.450	4.25	
20	3.00	4.00	2.66	3.42	3.27	3.84	3.50	4.25	3.25	
21	2.20	3.00	3.66	2.85	2.72	3.76	3.00	4.00	2.75	
22	4.20	4.00	3.00	3.57	4.00	3.15	3.50	4.50	4.00	
23	4.20	4.00	4.00	3.71		3.84	3.50	3.75	2.50	
24	3.60	3.50	2.66	3.57		4.00	4.00	4.25	3.00	
25	3.40	3.50	3.33	3.57	3.27	3.46	2.00	4.50	3.50	
26	4.40	4.50	4.00	3.57	2.90	4.46	4.00	4.25	3.75	
27	3.80	3.50	3.00	3.42	3.36	3.92	4.00	4.25	3.75	
28	3.80	3.50	3.00	3.71	2.45	3.84	4.00	4.25	3.00	
29	1.80	3.50	2.66	3.57	1.63	3.76	3.00	4.00	3.25	
30	2.40	3.50	4.00	3.00	2.09	3.76	3.00	3.50	2.75	
31	4.60	3.50	3.33	3.71	2.81	4.30	4.00	3.50	3.75	

Table 15 (continued)

Item	Dade M	Dade F	Broward M	Broward F	Sarasota M	Sarasota F	St. Johns M	St. Johns F	Suwannee M	Suwannee F
32	4.60	3.50	4.00	4.14	4.18	4.15	4.00	4.50	4.25	
33	3.00	3.50	3.00	2.42	2.18	2.92	3.50	3.75	3.25	
34	4.40	3.50	3.33	3.85	4.27	4.00	4.50	4.50	4.25	
35	4.60	3.50	3.66	4.00	3.72	4.00	4.50	4.50	4.00	
36	3.20	3.00	3.33	3.20	2.63	3.30	2.50	4.00	3.25	
37	2.20	3.00	3.66	3.28	2.54	3.46	2.50	3.25	3.50	
38	2.80	3.50	4.33	3.57	1.81	3.92	3.00	4.75	3.50	
39	2.40	3.50	3.66	3.57	2.36	3.76	4.00	4.25	3.75	
40	3.60	4.00	3.66	4.00	2.27	3.84	3.50	4.50	3.25	
41	3.60	4.00	4.00	4.00	3.27	4.14	4.00	4.25	3.50	
42	4.80	3.50	4.33	4.14	2.90	3.92	4.00	4.50	4.00	
43	4.60	4.50	4.00	4.00	4.36	4.15	4.50	4.50	4.00	
44	3.60	3.50	4.00	3.28	2.45	3.15	4.00	3.75	3.50	
45	4.00	4.50	3.33	3.57	2.90	3.92	3.50	4.25	4.25	
46	4.20	4.00	3.00	3.85	3.09	3.53	4.50	4.50	4.25	
47	2.80	3.50	2.66	3.42	2.40	3.07	2.50	3.25	3.00	
48	3.80	3.50	3.66	3.00	3.00	3.69	4.00	3.75	3.75	
49	3.80	3.00	3.33	2.71	2.36	3.76	4.00	3.75	2.75	
50	4.40	4.00	4.00	3.57	3.63	4.15	4.50	4.50	4.00	
51	1.40	4.00	3.33	3.14	3.45	3.69	3.50	4.00	3.75	
52	3.80	3.50	3.33	3.28	3.18	4.00	4.00	3.00	3.75	
53	1.40	3.50	3.33	3.00	2.54	4.00	4.00	3.25	4.00	
54	2.60	3.00	3.00	3.42	2.27	3.53	3.00	3.50	3.50	
55	4.60	4.00	3.33	3.14	3.45	4.38	4.50	4.75	4.00	
56	4.60	3.00	3.33	3.71	3.54	3.76	4.50	4.25	4.50	
57	4.40	3.50	3.00	3.42	2.81	3.76	4.00	4.25	4.00	
58	2.80	3.50	3.33	3.28	2.54	3.30	3.00	4.00	3.75	
59	2.80	3.50	3.00	2.57	1.54	3.07	3.00	2.75	4.00	
60	2.00	2.50	3.33	2.71	1.63	2.53	3.50	2.75	2.50	
61	4.20	4.00	3.00	3.57	2.63	3.84	3.50	4.25	3.75	
62	3.00	3.50	3.00	3.57	2.27	3.69	4.00	4.00	3.75	
63	4.40	3.50	3.33	3.57	3.36	3.69	4.50	4.50	4.25	
64	4.20	4.00	3.33	3.57	3.81	3.69	4.50	4.25	4.25	

Table 15 (continued

Item	Dade M	Dade F	Broward M	Broward F	Sarasota M	Sarasota F	St. Johns M	St. Johns F	Suwannee M	Suwannee F
65	4.20	3.50	3.33	3.71	1.54	4.15	4.50	4.25	3.75	
66	2.60	3.50	3.00	3.00	2.09	3.30	4.00	3.50	3.75	
	n=5	n=2	n=3	n=7	n=11	n=13	n=2	n=4	n=4	n=0

Table 16

Summary of Item Means/Sex/District

Level of Achievement

Item	Dade		Broward		Sarasota		St. Johns		Suwannee	
	M	F	M	F	M	F	M	F	M	F
1	4.20	4.00	5.00	4.14	4.09	4.07	4.00	4.25	4.25	
2	4.80	3.50	4.66	4.00	4.36	3.84	4.50	4.75	4.00	
3	4.60	3.00	4.33	3.42	3.54	3.38	4.00	4.75	4.00	
4	4.60	2.50	4.66	3.71	3.81	3.07	5.00	4.50	3.75	
5	4.40	4.50	4.33	3.71	3.09	2.69	4.00	4.00	3.25	
6	3.80	3.50	4.33	3.42	2.81	2.92	4.00	4.50	3.50	
7	2.60	2.50	4.66	3.42	2.81	2.76	4.50	4.25	2.75	
8	4.40	3.50	3.00	4.14	3.81	3.38	4.00	4.25	3.00	
9	4.60	4.00	4.66	3.42	4.09	3.07	4.50	4.50	4.25	
10	4.60	4.00	4.33	3.57	3.54	3.38	4.50	4.75	4.00	
11	4.60	4.00	4.33	3.57	3.36	2.92	4.50	4.50	3.75	
12	4.20	3.50	4.00	3.14	3.18	3.07	4.00	4.00	3.50	
13	4.60	4.50	4.33	3.14	3.18	3.53	4.00	4.25	3.75	
14	4.00	4.00	3.33	2.85	2.90	2.69	5.00	3.50	3.50	
15	2.60	3.50	2.00	2.42	2.54	3.84	2.50	3.00	3.00	
16	4.80	3.50	3.33	3.28	4.00	3.46	5.00	4.50	3.[illegible]	
17	4.00	3.00	66	3.14	3.81	3.30	4.50	4.50	3.75	
18	3.20	0	4.66	2.71	3.90	2.84	4.00	4.25	3.25	
19	4.80	4.50	4.33	3.28	3.81	3.83	4.00	4.50	4.00	
20	3.40	3.00	3.00	3.57	3.00	3.61	4.50	4.00	3.75	
21	2.20	3.00	2.33	2.85	2.18	2.76	2.50	3.75	3.00	
22	4.20	4.50	4.66	3.57	3.90	3.00	4.50	4.50	3.50	
23	2.00	3.50	2.33	2.71	1.90	2.00	3.50	3.75	2.25	
24	3.80	3.00	3.66	3.57	3.72	2.84	4.00	4.25	3.50	
25	2.60	3.50	4.66	3.42	3.54	3.15	4.50	4.50	3.50	
26	4.20	2.50	2.66	2.42	2.54	2.53	4.00	3.75	3.75	
27	4.40	2.50	3.66	3.42	3.00	2.69	5.00	4.25	3.25	
28	3.80	2.50	4.33	3.14	2.27	1.92	4.00	4.00	2.50	
29	2.20	2.00	3.66	3.00	1.45	2.23	2.50	2.00	2.50	
30	1.60	2.00	2.66	2.57	2.09	2.07	3.00	3.00	2.25	
31	4.80	3.00	4.00	3.28	2.54	2.61	4.00	3.50	2.75	

Table 16 (continued)

Item	Dade		Broward		Sarasota		St. Johns		Suwannee	
	M	F	M	F	M	F	M	F	M	F
32	4.60	3.50	3.00	3.42	3.63	3.07	3.50	4.50	3.50	
33	3.20	2.00	4.00	3.28	3.09	3.23	4.00	2.25	3.50	
34	4.40	3.00	4.33	4.14	4.09	3.61	5.00	4.50	3.25	
35	4.60	4.00	4.00	3.28	4.00	3.69	5.00	4.50	2.75	
36	3.00	2.50	3.33	1.85	2.27	1.92	2.50	3.00	2.75	
37	2.00	4.00	3.33	3.28	2.81	3.38	4.00	3.25	3.50	
38	2.40	3.50	3.00	2.71	1.63	2.84	3.50	4.75	3.00	
39	2.60	1.50	2.00	2.57	2.18	2.07	3.50	3.50	2.75	
40	4.40	4.50	3.33	3.57	3.18	3.00	3.50	4.50	3.75	
41	3.60	3.00	3.33	3.42	3.63	2.84	4.00	4.25	3.75	
42	4.80	4.00	3.33	3.71	3.63	3.46	4.50	4.50	4.25	
43	3.80	3.50	2.66	3.28	4.00	2.38	3.50	4.00	3.50	
44	2.40	3.00	3.00	2.71	3.00	2.84	4.00	3.50	3.50	
45	2.80	3.50	4.00	3.28	2.72	3.15	3.50	4.50	3.75	
46	4.20	4.00	4.00	3.57	2.90	3.23	4.50	4.50	0	
47	2.00	1.50	3.00	2.42	1.63	1.61	2.50	1.50	2.50	
48	2.80	2.50	3.00	3.71	2.45	2.92	3.50	3.50	2.50	
49	1.80	3.00	3.00	3.71	2.81	2.92	4.00	4.25	3.25	
50	4.20	3.50	3.66	3.42	3.90	3.00	4.50	4.00	3.50	
51	2.00	4.00	4.00	3.00	4.20	3.30	3.50	4.00	3.75	
52	4.60	3.50	3.33	3.42	3.27	3.07	4.00	3.00	3.50	
53	1.00	3.50	3.00	2.71	2.81	3.92	2.50	4.25	3.25	
54	2.20	2.00	2.66	2.71	2.09	1.92	2.50	2.50	2.50	
55	4.60	3.00	4.00	3.14	3.90	2.61	4.50	3.75	3.25	
56	4.40	3.00	3.33	3.57	4.18	3.07	4.50	4.25	3.50	
57	4.20	3.00	3.66	3.42	3.45	2.84	4.00	4.25	3.00	
58	4.40	2.50	3.00	3.57	3.45	2.92	4.00	3.25	3.00	
59	1.80	2.50	3.66	2.42	1.36	2.23	3.00	3.25	2.75	
60	2.00	2.50	1.33	2.14	2.09	1.69	3.50	2.00	1.75	
61	4.40	3.50	3.33	3.00	2.54	3.00	3.50	4.00	2.75	
62	1.80	2.00	3.00	2.85	2.18	2.23	3.00	3.50	3.25	
63	4.40	3.00	4.33	3.42	4.09	3.38	4.50	4.50	3.50	
64	4.20	4.00	4.00	3.42	4.00	3.38	4.50	4.00	3.75	

Table 16 (continued)

	Dade		Broward		Sarasota		St. Johns		Suwannee	
Item	M	F	M	F	M	F	M	F	M	F
65	3.00	2.50	3.66	3.57	1.90	1.92	4.50	3.00		
66	2.80	3.50	4.00	3.85	3.54	3.38	.50	4.50	3.75	
	n=5	n=2	n=3	n=7	n=11	n=13	n=2	n=4	n=4	n=0

Table 17

Summary of Item Means/Sex/Instructional Area

Level of Importance

	Agriculture		Business Education		Distributive Education		Diversified Occupations		Health and Public Service		Home Economics		Industrial Education	
Item	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	4.16		4.28		4.50	4.50	3.33	4.20	2.00	4.50	4.20	4.30	5.00	
2	4.33		4.28		4.50	4.00	3.66	4.80	5.00	3.33	4.80	4.69	5.00	
3	4.16		4.28		4.50	4.00	4.33	4.60	4.00	4.50	4.40	4.15	5.00	
4	4.33		4.28		4.50	5.00	4.33	4.60	4.00	3.66	4.20	4.15	5.00	
5	3.33		4.00		4.00	3.50	4.00	4.40	4.00	3.83	4.40	3.92	5.00	
6	4.16		4.00		4.50	3.50	4.00	4.40	3.00	3.33	4.60	3.38	5.00	
7	4.50		4.14		2.00	3.50	3.66	3.40	4.00	3.50	4.20	3.23	5.00	
8	4.50		3.71		4.00	4.50	2.66	2.80	3.00	3.16	4.20	3.46	4.00	
9	4.33		3.85		4.50	5.00	4.00	3.60	4.00	3.00	4.40	4.15	5.00	
10	4.50		4.00		4.50	4.00	3.66	4.20	3.00	3.50	4.00	3.76	5.00	
11	4.50		4.14		4.50	4.50	4.00	3.60	4.00	3.16	3.80	3.69	5.00	
12	4.50		3.85		4.00	5.00	4.33	4.40	4.00	2.83	3.80	3.69	5.00	
13	4.33		4.00		4.00	5.00	4.00	4.20	3.00	2.66	3.80	3.84	5.00	
14	3.50		3.71		3.50	4.50	4.00	3.80	3.00	3.33	4.00	3.38	4.00	
15	2.33		3.57		2.50	3.50	2.00	4.60	5.00	3.50	3.40	3.23	5.00	
16	4.33		4.14		4.50	4.50	4.00	4.00	3.00	3.16	4.00	4.38	5.00	
17	4.33		4.00		4.00	5.00	3.66	3.60	3.00	3.33	4.20	4.30	5.00	
18	4.00		3.71		3.50	3.50	3.33	3.20	4.00	3.00	3.40	3.30	4.00	
19	4.33		4.00		4.50	5.00	4.00	4.20	4.00	3.50	4.20	4.30	5.00	
20	2.66		3.57		[illegible]	4.50	3.33	4.00	4.00	3.50	4.00	3.38	4.00	
21	2.33		3.57		2.00	3.50	3.33	3.40	3.00	3.00	3.80	2.92	5.00	
22	3.83		4.14		4.00	4.50	3.66	2.60	3.00	3.16	3.40	4.00	5.00	
23	2.33		3.71		3.50	3.50	3.66	3.80	3.00	3.83	3.80	3.61	5.00	
24	3.83		3.85		3.50	4.00	3.00	3.80	3.00	3.83	3.80	3.07	5.00	
25	2.16		3.28		2.00	4.00	3.33	3.40	4.00	3.83	3.80	3.38	5.00	
26	3.33		4.00		3.50	3.50	4.33	4.40	4.00	4.50	4.20	3.46	4.00	
27	4.16		3.42		4.00	4.00	4.33	3.40	4.00	4.33	3.80	2.92	5.00	
28	3.00		3.57		3.50	4.50	3.66	3.80	3.00	4.00	3.80	2.76	4.00	
29	2.83		3.00		2.00	4.00	3.00	4.00	2.00	4.16	3.60	1.69	5.00	
30	2.50		3.42		1.50	2.50	2.66	3.60	3.00	4.00	3.40	2.69	3.00	
31	4.16		3.71		4.00	4.00	3.00	4.60	4.00	4.00	3.80	3.15	3.00	

Table 17 (continued)

	Agriculture		Business Education		Distributive Education		Diversified Occupations		Health and Public Service		Home Economics		Industrial Education	
Item	M	F	M	F	M	F	M	F	M	F	M	F	M	F
32	4.33		4.28		4.50	4.00	3.66	3.60	4.00	4.33	4.20		4.30	5.00
33	3.33		2.85		1.50	0.50	2.00	3.40	5.00	2.83	3.60		2.61	4.00
34	4.50		3.14		4.50	4.50	3.33	4.00	4.00	4.50	4.20		4.23	5.00
35	4.66		4.00		4.50	4.00	3.00	3.20	4.00	4.50	4.20		3.84	5.00
36	2.66		2.85		2.50	3.00	3.66	3.40	3.00	4.16	3.40		2.92	3.00
37	2.83		2.85		1.00	3.00	3.33	3.40	4.00	4.16	3.20		2.76	3.00
38	2.50		4.00		1.50	3.50	3.00	3.40	4.00	4.16	4.00		2.76	5.00
39	3.16		3.57		3.50	3.50	3.66	3.40	3.00	4.33	3.60		2.46	5.00
40	3.00		4.28		3.50	4.00	3.66	3.20	3.00	4.16	4.00		2.69	5.00
41	4.16		3.71		3.50	4.00	3.66	4.60	4.00	4.33	3.80		3.15	5.00
42	3.50		4.14		4.50	3.50	3.66	3.60	5.00	4.16	4.20		3.61	5.00
43	4.50		4.28		4.00	4.00	4.00	3.80	4.00	4.33	4.20		4.38	5.00
44	3.16		3.00		4.00	1.50	3.66	2.60	4.00	4.50	3.80		2.84	3.00
45	3.50		4.00		4.00	3.50	3.33	3.40	4.00	4.00	4.20		3.30	5.00
46	4.50		4.00		4.00	4.50	3.00	2.20	3.00	4.33	4.00		3.30	5.00
47	2.50		2.85		2.00	3.00	3.00	3.00	2.00	3.83	3.40		2.76	3.00
48	4.16		3.42		3.50	1.50	3.33	3.20	5.00	4.33	3.80		3.00	3.00
49	2.83		3.14		3.50	1.50	3.66	3.60	4.00	4.33	3.40		2.69	3.00
50	4.33		4.00		4.50	3.50	4.33	3.80	4.00	4.33	4.00		3.61	5.00
51	4.16		3.14		1.00	3.00	3.33	3.60	4.00	4.16	3.60		2.76	5.00
52	3.50		2.85		4.00	3.50	3.66	4.00	4.00	4.16	3.80		3.30	3.00
53	3.50		3.14		1.50	1.50	3.66	4.40	4.00	4.16	3.60		2.30	3.00
54	3.16		2.57		1.50	3.50	3.00	4.00	3.00	3.83	3.60		2.53	4.00
55	4.50		3.42		4.00	3.50	3.66	4.60	4.00	4.50	4.00		3.53	5.00
56	4.66		4.00		4.50	4.00	3.66	2.80	4.00	4.16	3.60		3.61	5.00
57	3.50		3.28		4.00	4.00	3.66	3.40	3.00	4.16	3.80		3.30	5.00
58	3.00		3.00		2.00	3.50	3.66	2.80	4.00	4.00	3.60		2.76	5.00
59	2.50		2.85		1.50	1.50	3.66	3.00	3.00	3.33	3.00		2.30	3.00
60	2.50		2.85		1.50	1.50	2.66	2.20	2.00	3.33	2.20		2.07	3.00
61	3.33		4.00		3.50	3.50	3.00	3.00	4.00	4.00	4.20		3.15	5.00
62	3.50		3.71		1.50	3.50	[illegible]	3.20	3.00	4.16	3.80		2.61	3.00
63	4.60		4.00		4.50	3.50	3.00	2.80	4.00	4.16	3.80		3.53	5.00

Table 17 (continued)

	Agriculture		Business Education		Distributive Education		Diversified Occupations		Health and Public Service		Home Economics		Industrial Education	
Item	M	F	M	F	M	F	M	F	M	F	M	F	M	F
64	4.33			4.00	4.00	3.50	3.66	3.00	4.00	3.83		4.00	3.84	5.00
65	3.16			4.00	4.00	4.00	3.33	3.80	4.00	4.33		3.80	2.38	4.00
66	2.83			3.14	2.00	1.50	3.66	3.00	5.00	4.00		3.60	2.38	3.00
	n=6	n=0	n=0	n=7	n=2	n=2	n=3	n=5	n=1	n=6	n=0	n=5	n=13	n=1

Table 18

Summary of Item Means/Sex/Instructional Area

Level of Achievement

	Agriculture		Business Education		Distributive Education		Diversified Occupations		Health and Public Service		Home Economics		Industrial Education	
Item	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	4.16		4.28		4.50	5.00	3.66	3.80	5.00	3.50	4.40		4.30	5.00
2	4.33		4.28		4.50	4.50	3.66	4.00	3.00	3.83	3.40		4.69	5.00
3	4.00		4.00		4.50	4.50	2.33	2.80	4.00	3.50	3.20		4.23	5.00
4	4.16		3.57		4.50	5.00	3.00	2.40	3.00	3.33	3.40		4.38	5.00
5	3.00		3.85		4.00	5.00	2.66	1.80	2.00	2.83	4.00		4.07	3.00
6	3.83		4.00		4.50	4.00	2.33	2.60	4.00	2.50	3.60		3.23	5.00
7	3.66		3.71		2.00	3.50	2.00	2.20	4.00	2.83	3.20		3.23	5.00
8	3.83		3.71		4.00	4.50	2.66	2.80	3.00	3.83	4.00		3.92	5.00
9	4.50		3.71		4.50	4.50	3.33	2.40	4.00	3.33	3.60		4.66	5.00
10	4.33		4.00		4.50	4.50	3.33	2.40	3.00	3.83	3.80		4.00	5.00
11	4.16		3.85		4.50	4.50	2.33	2.00	4.00	3.33	3.60		4.00	5.00
12	4.00		3.57		4.00	4.00	2.66	2.80	3.00	2.66	3.40		3.61	5.00
13	4.16		4.14		4.00	5.00	2.33	3.00	3.00	2.83	3.60		3.92	5.00
14	3.33		3.28		3.50	3.50	3.33	1.60	3.00	3.00	3.80		3.53	2.00
15	2.33		3.28		1.50	1.50	3.33	4.80	3.00	2.83	3.20		2.61	3.00
16	4.00		4.14		4.50	5.00	3.00	2.20	4.00	3.16	3.80		4.23	5.00
17	4.16		3.71		4.00	4.50	2.33	2.60	4.00	3.16	3.40		4.30	5.00
18	3.50		3.71		4.00	3.50	3.33	2.40	4.00	3.16	2.20		3.92	4.00
19	4.16		3.85		4.50	5.00	2.66	2.80	3.00	3.00	4.00		4.46	5.00
20	3.16		3.71		5.00	5.00	2.33	4.80	4.00	2.66	3.00		3.30	3.00
21	2.00		3.57		3.50	4.00	2.66	2.20	3.00	2.33	3.00		2.23	4.00
22	3.66		4.00		4.00	5.00	3.66	2.20	4.00	3.16	3.60		4.30	5.00
23	2.16		3.00		2.50	3.00	1.00	1.60	2.00	2.00	3.00		2.38	5.00
24	3.83		3.85		4.00	5.00	3.66	2.40	3.00	3.00	2.60		3.69	5.00
25	3.83		3.57		2.00	5.00	3.33	3.20	4.00	3.50	2.60		3.69	5.00
26	3.16		3.14		3.00	2.00	1.66	1.60	3.00	3.33	2.80		3.61	2.00
27	4.00		3.28		4.00	5.00	3.00	2.00	3.00	3.00	3.00		3.46	5.00
28	3.16		2.71		3.50	4.00	2.33	1.40	3.00	2.33	3.00		3.00	5.00
29	1.83		2.57		2.00	3.50	2.33	2.00	3.00	2.16	2.80		2.15	1.00
30	2.00		3.00		1.5	2.5	2.00	1.60	2.00	1.83	2.60		2.38	3.00
31	3.33		3.42		4.00	4.0	2.33	1.60	3.00	3.00	3.20		3.46	3.00

Table 18 (continued)

Item	Agriculture M	Agriculture F	Business Education M	Business Education F	Distributive Education M	Distributive Education F	Diversified Occupations M	Diversified Occupations F	Health and Public Service M	Health and Public Service F	Home Economics M	Industrial Education M	Industrial Education F
32	3.66		3.85	4.50	4.50	2.33	2.00	3.00	3.50	3.40	4.00	5.00	
33	3.50		3.14	4.00	2.50	3.66	3.40	4.00	3.33	2.20	2.92	3.00	
34	4.00		3.71	4.50	5.00	3.33	3.40	3.00	3.83	3.80	4.38	5.00	
35	4.00		3.85	4.50	4.50	2.66	2.80	4.00	3.83	3.80	4.23	5.00	
36	2.00		1.57	2.00	2.50	3.33	1.60	3.00	2.83	2.60	2.84	1.00	
37	3.16		2.71	2.00	4.00	3.00	3.60	3.00	4.00	3.20	2.92	3.00	
38	2.50		3.71	1.50	4.00	1.66	2.40	3.00	2.83	2.80	2.46	5.00	
39	2.33		2.85	3.50	3.00	3.00	1.00	3.00	2.33	2.60	2.15	4.00	
40	2.83		4.00	4.50	4.05	4.00	2.20	4.00	3.00	4.00	3.61	5.00	
41	3.83		3.42	4.50	5.00	3.00	2.00	3.00	3.16	3.20	3.61	5.00	
42	3.33		4.14	5.00	4.50	4.00	2.60	4.00	3.33	4.20	4.15	5.00	
43	3.66		3.00	4.00	5.00	3.66	1.60	3.00	3.00	3.40	3.69	3.00	
44	3.00		3.14	3.00	1.50	1.66	2.20	3.00	3.83	2.80	3.38	3.00	
45	3.16		3.71	3.50	4.00	3.33	2.80	4.00	3.00	3.60	2.92	5.00	
46	4.16		3.85	3.00	5.00	2.33	2.00	4.00	3.66	3.80	3.53	5.00	
47	2.00		1.85	2.00	2.00	2.00	1.00	3.00	2.16	2.20	2.07	1.00	
48	2.66		3.42	2.50	5.00	2.66	3.00	4.00	3.16	2.40	2.61	3.00	
49	2.83		3.42	2.50	5.00	2.00	2.40	4.00	3.66	3.20	2.92	3.00	
50	4.00		3.57	4.50	4.50	3.00	2.20	3.00	3.33	3.20	3.07	5.00	
51	3.83		3.14	2.00	4.00	3.50	3.00	3.00	3.66	3.40	3.76	5.00	
52	2.83		3.28	4.50	4.50	2.33	2.60	3.00	3.16	3.60	4.23	1.00	
53	2.33		4.14	2.50	1.00	1.66	4.20	4.00	3.33	3.60	2.69	4.00	
54	2.16		2.28	1.50	3.00	2.33	1.00	3000	2.83	2.20	2.38	3.00	
55	4.00		3.28	4.00	4.50	3.00	1.60	3.00	3.33	3.00	4.30	2.00	
56	4.08		3.85	4.00	5.00	4.00	2.40	3.00	2.83	3.40	4.15	5.00	
57	3.00		3.28	3.50	4.50	3.66	2.80	4.00	2.83	3.20	3.92	5.00	
58	3.00		2.71	4.00	5.00	3.00	2.00	4.00	3.83	3.20	3.84	3.00	
59	1.66		3.42	1.50	50	2.66	1.60	3.00	2.66	2.20	2.15	2.00	
60	2.16		2.00	2.00	1.50	3.00	1.80	2.00	2.16	1.80	1.76	2.00	
61	2.66		3.42	3.50	3.00	3.00	2.80	3.00	2.16	3.60	3.30	5.00	
62	2.50		3.57	1.50	2.50	3.33	1.20	3.00	2.50	2.60	2.30	3.00	
63	4.00		4.00	4.50	4.50	3.33	2.60	4.00	3.3[illegible]	3.40	4.30	5.00	

Table 18 (continued)

	Agriculture		Business Education		Distributive Education		Diversified Occupations		Health and Public Service		Home Economics		Industrial Education	
Item	M	F	M	F	M	F	M	F	M	F	M	F	M	F
64	4.00			3.85	4.00	4.50	4.00	2.60	3.00	3.18		3.80	4.15	5.00
65	3.00			2.57	4.00	5.00	3.33	1.60	3.00	2.50		3.00	2.30	1.00
66	3.66			3.28	5.00	5.00	3.00	2.80	5.00	4.16		3.80	3.30	5.00
	n=6	n=0	n=0	n=7	n=2	n=2	n=3	n=5	n=1	n=6	n=0	n=5	n=13	n=1

Table 19

Summary of Importance Mean-Achievement Mean Discrepancy/Item

Item	Importance	Achievement	Discrepancy
1	4.275	4.176	.099
2	4.333	4.216	.117
3	4.314	3.765	.549
4	4.235	3.784	.451
5	3.922	3.451	.417
6	3.902	3.373	.529
7	3.686	3.137	.549
8	3.608	3.725	(.117)
9	4.020	3.882	.138
10	3.961	3.843	.118
11	3.902	3.647	.255
12	3.922	3.431	.491
13	3.882	3.686	.196
14	3.627	3.196	.431
15	3.333	2.941	.392
16	4.098	3.804	.294
17	4.039	3.706	.333
18	3.451	3.392	.059
19	4.176	3.836	.340
20	[illegible]0	3.471	.019
21	2.667	2.667	.000
22	3.706	3.765	(.059)
23	3.549	2.373	1.176
24	3.588	3.490	.098
25	3.451	3.510	(.059)
26	3.882	2.941	.941
27	3.667	3.333	.334
28	3.431	2.804	.627
29	2.961	2.255	.706
30	3.039	2.255	.784
31	3.725	3.137	.588
32	[illegible]196	3.569	.627
33	2.843	3.137	(.294)
34	4.098	3.980	.118
35	4.020	3.863	.157
36	3.157	2.373	.784
37	3.059	3.157	(.098)
38	3.314	2.745	.569
39	3.333	2.412	.921
40	3.490	3.529	(.039)
41	3.824	3.431	.393
42	3.882	3.863	.019
43	4.255	3.314	.941
44	3.235	2.980	.255
45	3.686	3.275	.411
46	3.706	3.549	.157
47	2.882	1.941	.941
48	3.471	2.941	.530
49	3.196	3.078	.118
50	4.000	3.608	.392
51	3.353	3.431	(.078)
52	3.549	3.412	.137
53	3.176	3.078	.098
54	3.078	2.255	.823
55	[illegible]1	3.471	.490
56	3.863	3.706	.157
57	3.588	3.431	.157
58	3.176	3.333	(.157)
59	2.706	2.275	.431
60	2.412	1.980	.432
61	3.549	3.157	.392
62	3.294	2.510	.784
63	3.784	3.824	(.040)
64	3.863	3.784	.079
65	3.451	2.667	.784
66	3.000	3.627	(.627)

Vita

Steven E. Sorg was born June 23, 1946, in Middletown, New York. He received his secondary education in Gulfport, Florida, graduating from Boca Ciega High School in 1964.

After receiving his Associate in Arts degree from St. Petersburg (Florida) Junior College in 1966, the author earned the Bachelor of Science degree with a major in Industrial Arts Education from The Florida State University in 1968. From 1968 until 1973, he taught industrial arts at Southside Junior High in St. Petersburg, Florida, and James S. Rickards High in Tallahassee, Florida, and attended The Florida State University, receiving the Master of Science degree in 1971.

The author has spent four years in industry as a land surveyor, architectural draftsman, and production manager. For two years during his doctoral studies, the author was a graduate teaching assistant in the program of Industrial Arts and Vocational Education at The Florida State University.

In 1978, the author was appointed Assistant Professor of Secondary Education at Florida Technological University in Orlando, Florida. He is married to the former Judith Anne Reigle, and they have two daughters, Cheri Leigh and Dana Lynn.