

SERVICE DELIVERY FIT BETWEEN THE VOCATIONAL
SCHOOL PSYCHOLOGIST'S TRAINING AND
PERCEIVED NEEDS OF INDUSTRY

By

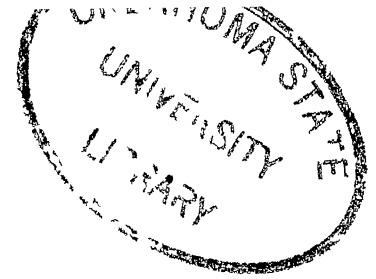
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TABLE OF CONTENTS

Chapter	Page
I INTRODUCTION	1
Statement of the Purpose	3
Justification for the Study	3
Limitations	6
Definition of Terms	6
Summary	7
II REVIEW OF LITERATURE	8
Structure of the Literature	8
Personal Development Services	10
Definition	10
Definition for Purposes of this Study	11
Studies of School Psychologists	11
Studies of Counseling Psychologists	12
Studies of Rehabilitation Counselors	12
Studies of Industrial Psychologists	13
Summary	14
Occupational Services	14
Definition	14
Definition for Purposes of this Study	17
Studies of School Psychologists	17
Studies of Counseling Psychologists	19
Studies of Rehabilitation Counselors	20
Studies of Industrial Psychologists	21
Summary	22
Career Development Services	24
Definition	24
Definition for Purposes of this Study	26
Studies of School Psychologists	26
Studies of Counseling Psychologists	29
Studies of Rehabilitation Counselors	29
Studies of Industrial Psychologists	30
Summary	31
Summary of Literature Review	33
III METHODOLOGY	36
Introduction	36
Procedure	36
Subjects	36

Chapter	Page
Instrument	37
Instructions	45
Limitations	45
Data Analysis	46
Research Method	49
IV ANALYSIS OF DATA	51
Discussion of the Results	51
V SUMMARY AND CONCLUSIONS	62
Summary	62
Conclusions	64
Suggestions	66
Limitations	68
Assumptions	68
General Conclusions	69
Recommendations	71
REFERENCES	74
APPENDIXES	80
APPENDIX A - VOCATIONAL SERVICES INVENTORY (CONTENT ANALYSIS)	81
APPENDIX B - VOCATIONAL SERVICES INVENTORY (CONTENT VALIDITY)	84
APPENDIX C - VOCATIONAL SERVICES INVENTORY (PILOT STUDY)	87
APPENDIX D - VOCATIONAL SERVICES INVENTORY (PERSONAL DEVELOPMENT SECTION)	97
APPENDIX E - ADDITIONAL ANALYSIS OF VOCATIONAL SERVICES INVENTORY (PERSONAL DEVELOPMENT SERVICES)	105

LIST OF TABLES

Table		Page
I	Summary of Literature in Personal Development Services	15
II	Summary of Literature in Occupational Services	23
III	Summary of Literature in Career Development Services	32
IV	Personal Development Services Item Analysis	40
V	Occupational Development Services Item Analysis	41
VI	Career Development Services Item Analysis	42
VII	Subtest Reliability Correlation Coefficients	43
VIII	Correlation Coefficient of Pretest and Posttest	43
IX	Ranking by Mean Likert Scores of Psychologists' and Business Peoples Responses to Personal Development Services	52
X	Ranking by Items by Open-Ended Selection for Psychologists and Business People	56
XI	Item Analysis for Business Group	106

CHAPTER I

INTRODUCTION

Millions of people go to the workplace daily, work provides an opportunity to experience feelings of job satisfaction and increase self-esteem (Salomone & Paige, 1984) Although fulfillment is illusive and individualistic in its definition, there are some generally fulfilling workplace characteristics of individual and organizational responsibility beginning to emerge (Scobel, 1980) When observing these workplace characteristics, one finds that, not only does the cultural milieu impose its opportunities and constraints on vocational growth, the entire spectrum of contexts (social, interpersonal, physical, political, familial, and economic) accounts for the complexity of vocational development (Vandracek, Lerner, & Schulenberg, 1983)

Individuals within the diversity of the workplace reap the results of their search fulfillment Each is a learner from his or her environment and, according to Knowles (1980), is involved in a lifelong process of learning Knowles (1980) defined the mission of education as producing competent people able to apply their knowledge under changing conditions He also presented areas wherein educational support services in work place programs were becoming relevant to work life needs (a) shifting from content-based curricula objectives to self-paced learning packages, (b) shifting from a focus on teaching to a focus on learning, (c) shifting the organization or education from a

single body of knowledge required by everyone to an individualistic self-directed search to reach individually chosen goals, and (d) shifting the delivery of educational services from preparation of youth for the future to services which are available to an individual at his or her convenience in terms of time and place. While pointing out these changes in educational vocational services, Knowles (1980) broadened the traditional view of education to include learning from a variety of sources, through a variety of services, and through a variety of goals.

While considering educational services to be a broad, all-encompassing term, this study concentrates on adults as they relate to vocational services which foster worklife adjustment. Types of vocational services are differentiated by Evans and Herr (1978) and consist of client-centered education (meeting the needs of the worker) and institution-centered education (meeting the needs of industry). The direction of this study is to address educational needs (both client-centered and institution-centered) provided by industry, which may be accommodated by a vocational school psychologist. This role will require the professional to possess broad areas of knowledge, integrate this wide array of knowledge, and apply that knowledge to a specific situation (Hobby & Warden, 1981). While presenting a vocational assessment model, Hobby and Warden (1981) made the point that a total system is required which emphasizes utilization of techniques, information, and assessment devices developed in the fields of adult education, secondary education, vocational education, post-secondary education, psychology, industry, vocational rehabilitation, and counseling. The information, techniques, and assessment services are not unique because they have been developed to a certain extent in the previously mentioned fields, the uniqueness

lies in the application of these services to a totally integrated program which is relevant to the total needs of the individual Yandrick (1985) surveyed business and education, asking what types of skills were considered important for success in providing programs designed to meet employee and business needs Duane Rogers, president of a personal assistance services firm, responded that planning, education, and counseling skills combined with the ability to apply these skills appropriately were essential Warden (1985) contended that vocational school psychologists must emphasize skill development in combination with a synergistic approach to service delivery This approach facilitates the ability to develop total process programs relevant to the total needs of a client The objectives of increased production, job satisfaction, and full participation in the workplace by valued workers are goals of support personnel, such as vocational school psychologists, in order to be relevant to goals of business and industrial personnel

Statement of the Purpose

The direction of this study is to facilitate a realistic vocational service to an individual's work life This study will investigate appropriate service skill training needed for the vocational school psychologist in order to serve industry

Justification for the Study

Vocational services is a term which has been used by Vondracek et al (1983) to describe a succession of procedures designed to assist the individual's adaption of vocational functioning to changing personal situations as well as to changing economic and contextual circumstances

For the purpose of unifying the focus of procedures developed to serve generic vocational needs, the researcher identified three domains of vocational services: personal development services, occupational services, and career development services.

Personal development services meet individual needs and business needs. It is important to address individualized needs in order to supply people with resources for problem solving (Bardon, 1972). Osipow (1982) discusses personal development services in terms of humane and economically important needs, such as job safety, job performance, material resource conservation, medical costs, absenteeism costs, overtime costs, and replacement training costs. Additionally, personal development services deal with the individual/environment fit (Crabbs & Black, 1984, Goldberg, 1982, Hoover, 1978, Maher & Illback, 1982), work behavior (Applebaum, 1982, Driver & Ratcliff, 1982, Whiteley, 1980), individual/job fit (Ganiel, 1985, McMaster, 1985), and communication (Scobel, 1980).

Occupational services were included as a domain of vocational services because of the need to advance in job skills competencies and other work-related abilities which increase an individual's potential for optimal performance. Occupational services include communication (Mishkind, 1983), evaluation (Akridge, 1984, Byham, 1980, Hobby & Warden, 1981, Huber, 1985, Knowles, 1980, Scott, Davis, & Dieffenderfer, 1934), and training (Delaney, 1980, Ivory, 1980, Silverman, Wexley, & Johnson, 1984, Warden, Kinnison, & Accord, 1982).

Finally, career services were included because of the individual's need to "search for the psychological meaning of vocationally relevant acts and of work itself in the human experience" (Barow, 1961, p. 22).

Fagan and Hohenshil (1976) described career educational services as a foundation for acquisition of information about a wide variety of career alternatives which accommodate an individual's aptitudes, interests, and aspirations. This knowledge will augment rational and well-informed career choices. Career development services are also comprised of services related to individual needs (Sekaran, 1983, Ryns & Rosen, 1983), job demands (Payne & Fletcher, 1983, Vredenburg & Trainkaus, 1983), individual/job fit (Lippitt, 1980), work behavior (Markham, 1983, Rooney, 1983), and job interests (Dahl, 1982, Dahl & Appleby, 1981, Hohenshil & Warden, 1978, Krau, 1982, LoCasio, 1974, Manuele, 1983, Meers, 1980)

The three domains of vocational services--career development services, occupational services, and personal development services--offer a method to categorize a variety of services found in business and training settings. This study will utilize these categories to review the skills of professionals meeting needs of business and industry.

The review of literature will examine skills and functions inherent in vocational services provided in different environments (home, school, work, and community) by vocational school psychologists, industrial psychologists, rehabilitation counselors, and counseling psychologists. This study will allow for an inspection and comparison of vocational service skills and functions. Graduate level training in the areas of counseling psychology, rehabilitation counseling, and industrial psychology has traditionally produced students who work in business and industry settings. Research for this study includes these fields plus the emerging professional field of vocational school psychology and will examine services provided by each profession. A survey will be utilized to

compare areas of perceived needs for services in the business environment with the services which vocational school psychologists indicate they are prepared to provide. This information will be a beginning of investigation of service domains which provide direction for training vocational school psychologists.

Limitations

One restriction of the descriptive study is that the results will be generalizable only to vocational school psychologists and not other professionals providing services to business. Another restriction is that it is possible that respondents will be biased because only volunteers will be used as subjects and their responses may be different from responses of those choosing not to respond.

Definition of Terms

Counseling Psychologist - A counseling psychologist at the doctoral level of training assists an individual or a group with developing and clarifying goals and values, clarifying present behavior, and becoming aware of environmental influences (Schurtzer & Stone, 1980)

Industrial Psychologist - An industrial psychologist at the doctoral level of training specializes in studying specific aspects of industrial functions and environments (Schurtzer & Stone, 1980)

Vocational Rehabilitation Counselor - A vocational rehabilitation counselor at the doctoral level of training assists disabled individuals through a comprehensive, individualized process, descriptive in nature and directed toward the development or restoration of functional independence (Holtz, Makl, & Riggan, 1984)

Vocational School Psychologist - A doctoral level vocational school psychologist works in secondary, vocational training, or business settings This professional provides diagnostic, counseling, referral, inservice, and consultation services

Vocational Services - Any procedure which assists an individual's adaptation within his work life functioning

Work Life - An individual's growth direction as it is affected by one's labor

Summary

Summarizing the intent and the rationale for this study, the research problem is to examine the service delivery fit between the vocational school psychologist's role and perceived needs of industry The study will review literature relevant to vocational services in Chapter II Chapter III will describe the survey which has been developed to assess vocational services Chapter IV will discuss the results of the survey Chapter V will discuss the implications and future uses of the information gained through the study

CHAPTER II

REVIEW OF LITERATURE

Structure of the Literature

The method chosen to deal with the literature was based on the three domains of vocational services (personal development services, occupational services, and career development services) which were created for the purpose of this study. Each of these three domains will be addressed by the four groups of professionals: vocational school psychologists, counseling psychologists, rehabilitation counselors, and industrial psychologists. The choice of these particular professional areas of industrial psychology, counseling psychology, and rehabilitation counseling was based on the traditional services to business with which these professionals have been linked. Super (1980) linked two of the professional areas with business services when he said

Our primary claim to career and vocational development and counseling remain disputed only by industrial and organizational psychologists and by clinical psychologists in industrial consulting, who have discovered that there are individuals inside organizations and that one can make a living helping them in their work settings (p. 23)

Holtz et al. (1984) pointed out that people with disabilities have traditionally received vocational services through rehabilitation counseling which has as its ultimate goal vocational or independent living placement. The professional area of vocational school

psychology as one of the four areas for investigation was chosen because it is an emerging profession serving business and industry. Hohenshil, Ryan, and Warden (1978) observed that the types of services described as needed in work settings and vocational training settings are precisely those that school psychologists are trained to provide at other levels of the education system, therefore, the expansion into vocational services is a viable service to provide. The literature review will survey types of services provided by each professional area individually.

This review has the three domains divided into seven sections each. The first section gives definitions of the domain given by each of four professional categories (vocational school psychologists, counseling psychologists, rehabilitation counselors, and industrial psychologists). The second section is the definition of the domain used for this study. The next four sections review literature that is relevant to the domain being discussed, which are vocational school psychologists (third section), counseling psychologists (fourth section), rehabilitation counselors (fifth section), and industrial psychologists (sixth section). The seventh section consists of a summary of the literature pertaining to the domain being reviewed. This pattern of discussing each of the seven sections will be followed for each of the three domains, and a summary will then be presented for combined information from the entire chapter.

Personal Development Services

Definition

Personal development services are comprised of a synthesis of viewpoints expressed by professionals. School psychologists emphasize services educating the individual to develop resources for problem solving and effectively use social systems within which they function (Bardon, 1972), analyze worker capabilities (Spungin & Swallow, 1975), and analyze systems existing within the workplace (Hannafin & Witt, 1982). Counseling psychologists focus on prevention programs which include early identification and treatment of employee problems (Toomer, 1982), and programs which increase productivity and profit through efficient support of individual enterprise (Osipow, 1982). Rehabilitation counselors center on independent living needs (Roessler, 1983) and integrated cooperative efforts between employers and employees (McCarthy, 1982, Worrall & Vandergoot, 1982). Industrial psychologists emphasize due process for employees (Norton & Gustafson, 1982) and awareness of differences in people related to areas of sensory acuity, speed of response, memory, and other such important areas (Stagner, 1982).

In summary of these definitions, the domain of personal development is defined by the perception of individual needs and the ways the institution could help workers cope with these needs in order to increase productivity in the workplace. These needs can be met through programs and services, i.e., employee assistance programs, social systems offering resources for problem solving, system analysis, and due process systems. Services which meet individual needs include

coordination of management and employee communication, studying task approach habits, consultation, diagnosis, counseling, inservice education, and interaction encouraging communications between trainers and families of disabled individuals with unique individual needs

Definition for Purposes of this Study

The term personal development services refers to services supportive of an individual's needs. These needs relate to one's living environment, one's professional image, and one's unique fit within workplace systems. Types of experiences encountered may be family crises, natural disasters, physical problems, poor decisions, and community and social barriers. In terms of productivity and profit, personal development is a strong point to pursue when considering the employee/employer symbiotic relationship.

Studies of School Psychologists

The role of school psychologists was discussed in general terms by Hohenshil and Warden (1978). Techniques they included were assessment, consultation, behavior management, and liaison skills. Hohenshil (1975) focused on general skills of assessing individual/vocational fit and providing inservice presentations which deal with behavior management and learning styles. Maher and Illback (1982) underscored assessment of the individual, assessment of the environment, evaluation of organizational systems, and evaluation of the society's impact upon the individual.

In summary of these studies, vocational school psychologists included assessing the individual and group needs by examining personal,

group, and environmental traits and interactions

Studies of Counseling Psychologists

Counseling psychologists dealt with the concept of working with organizations in order to promote efficiency and cooperation Krumboltz and Menefee (1980), Super (1980), and Whiteley (1980) utilized identification, assessment, and treatment of individual needs Toomer (1982) focused on Employee Assistance Programs which consist of approaches to alcohol, chemical dependency, family, marital, legal, financial, chronic physical, and job performance problems He further emphasized that key functions of employee assistance programs are prevention, early identification, and treatment of employee problems in order to impact safety, work performance level, wasted materials, medical costs, absenteeism, overtime costs, and replacement training Osipow (1982) elaborated on the use of training sessions which results in reduction of potential problems by increasing awareness of behavior, environment/person interactions, gross signs of substance abuse, and self-care

In summary of these studies, counseling psychologists were meeting personal needs by identifying and assessing needs, then providing individual solutions as well as selected programs to meet these needs

Studies of Rehabilitation Counselors

Rehabilitation counseling services accent the realities of client needs brought about by a disabling condition Vandergoot (1982) stressed liaison activities composed of rehabilitation counselors joining the employing organizations and labor unions to foster mutual

benefits These benefits may consist of such things as unions getting injured workers on rehabilitation rolls McCarthy (1982) added services which include information dissemination of unique capabilities and interests of individuals, evaluation of independent living needs, and counseling with the individual and his or her employer Worrall and Vandergoot (1982) emphasized assistance with job performance requirements--worker inexperience, inappropriate job-specific skills, previously unrecognized job demands, inappropriate social relationships, and use of free time

Rehabilitation counselors approached personal development needs in four areas unified efforts to promote optimal services, adjustment to job requirements, adjustment to job-related personal requirements, and individual problems unique to many disabling conditions

Studies of Industrial Psychologists

Industrial psychology studies related to two areas One area pertained to organizational need which encouraged individuals to work for long-term goals of the organization (Norton & Gustafson, 1982) The second area was touched on by Stagner (1982) and included requisites relating to the individual in social areas, such as dual career families Additionally, he incorporated the areas of stress tolerance, ability to cope with emergencies, ability to function as age changes, needs for periods of rest, self-pacing, psychological fatigue, and job satisfaction

In summary of the studies by industrial psychologists in the area of personal development services, personal needs were viewed in relationship to job requirements and effects on the individual

Summary

The four professional groups speak to the domain of personal development service through divergent approaches in order to best serve individual needs (Table I). The concept of consultation with management was addressed by vocational school psychologists and counseling psychologists. Program evaluation, behavioral management, and individual/vocational fit were singularly surveyed by vocational school psychologists. These three topics relate to traditional functions of working toward enabling the student to fit within the school system yet are applicable to workplace behavior. Counseling strategies were underscored by vocational school psychologists, counseling psychologists, and rehabilitation counselors. Liaison with community resources was dealt with by vocational school psychologists and rehabilitation counselors. Two areas were approached by rehabilitation counselors alone, which were case managing and independent living consultation.

These topics suggest elements of vocational services relating to employees which pertain to job satisfaction, job communication, job behavior, individual/job fit, and individual/environment fit. Vocational services pertaining to employers encompass employee productivity, employee efficiency, and employee/employer communication.

Occupational Services

Definition

Vocational school psychologists define occupational services by encompassing such activities as appropriate identification of workers who would benefit from specific training programs, isolation of a

TABLE I
SUMMARY OF LITERATURE IN PERSONAL DEVELOPMENT SERVICES

Topic	V	C	R	I
Assessment strategies	x	x		
Management consultation strategies	x	x		
Program evaluation	x			
Counseling	x	x	x	x
Behavior management	x			
Liaison	x		x	
Consulting	x	x		
Case managing			x	
Independent living counseling			x	
Job satisfaction				x
Inservice	x	x		x
Individual vocational fit	x			
System organization	x			x
Employee assistance programs		x		x

V = vocational school psychologists

C = counseling psychologists

R = rehabilitation counselors

I = industrial psychologists

specific set of traits favorable to success in occupational areas, provision of techniques for individualizing training, and provision for retraining and upgrading of skills (Hohenshil, 1975) Warden et al (1982) stresses planning for training programs which are stratified and individualized Kratochwill and Bergan (1978) emphasize evaluation of programs and improvement of planning for skill training in order to upgrade training programs Counseling psychologists cite adjustment to organizational change as a requisite for meeting occupational demands This requirement is met through training programs and appropriate employee selection processes (Toomer, 1982, Whiteley, 1980) A combination of training employees and aculturating businesses to the capabilities of the disabled (Reagles, 1981, Vandergoot, 1982, Worrall & Vandergoot, 1982) is an occupationally oriented objective expressed by rehabilitation counselors Stagner (1982) reinforces the necessity of industrial psychologists to provide services which foster adjustment to changing workplace demands through job design and organizational development

In summary, occupational services are a part of the two broad areas of training and employment Training needs to be (1) flexible in order to meet individual needs, (2) continually evaluated for upgrading skills, (3) evaluated to meet needs of the system the training program exists within, and (4) prepared to play a part in motivational problems in industry Employment needs include job design, organizational development, employee selection, and complying with governmental regulations

Definition for Purposes of this Study

The term occupational services refers to services available to employees and employers which maximize work productivity. These services include consultation with management in reference to employee selection, training programs, job designs, workplace programs, and organizational analysis. Services to employees incorporate training and evaluation of required job skills. Occupational service benefits underscore the advantages of individuals enhancing their abilities and organizations distributing work in such a way as to maximize productivity.

Studies of School Psychologists

Hohenshil and Warden (1978) reviewed proposed direct and indirect services which vocational school psychologists acquired in the area of occupational services. Areas of direct service were work sampling, job analysis, job modification, assessment strategies, program evaluation, group and individual counseling, and liaison skills with community agencies. Indirect services included consulting with employers, vocational trainers, or community personnel concerning instructional strategies, learning needs, and behavior management and individual/job fit selection techniques. Individual/job fit selection techniques include information concerning individual interests, attitudes, and skills required for various job clusters and specific vocations.

Fairchild (1982) elaborated on the broad service role the school psychologist was prepared to assume. Roles included assessment, counseling, staff development, consultation, family education, liaison,

and evaluation Program evaluation is a tool which accommodates the need for identification of vocational performance problems (Kratochwill & Bergan, 1978), collection of decision-making data (Hoover, 1978), and provision of quality information to decision-makers through analysis of organizational systems (Maher & Illback, 1982) System level intervention was used to assess problems within employee development through an inspection of the organizational system rather than looking to one individual area (Hannafin & Witt, 1982)

A comparison was made by Thurlow and Ysseldyke (1982) involving instructional planning assessment procedures considered useful by instructors across the United States with assessment procedures used by school psychologists The study revealed inconsistencies in procedures considered useful by the two groups and is a reminder of the importance of considering the suitability of information before assessments are made skills which are especially useful when accommodating requirements of the disabled Warden et al (1982) presented curricular strategies which encourage individualization using job analysis Jobs were task-analyzed in terms of required skills and knowledge which reinforce organization, sequencing, and flexibility of the curriculum

In summary, services are provided in cooperation with management regarding evaluations for promotions, program evaluation, organizational structure analysis, job analysis, job design, and job training which are relevant to productivity Job-related needs were addressed by vocational school psychologists pertaining to organizational goals and an individual's workplace adjustment

Studies of Counseling Psychologists

Whiteley (1980) pointed out the need to keep institutional change abreast of technological change through provision of services which accommodate adjustment to changes within a system. Toomer (1982) delineated the wide variety of areas of expertise including recruitment, selection, advancement, health and safety education, job-related skill effectiveness, and efficiency. Equal employment legislation is increasingly requiring test selection consultation regarding nonbiased instruments, training programs for interview techniques, planning outplacement programs for terminated employees, and consulting in relation to plans for employee satisfaction. Health education positions include planning for smoking withdrawal clinics, stress seminars, the negative physical and mental effects of work, and weight loss seminars. Safety education program planning involves programs dealing with stress, risk-taking behaviors, and alcoholism. Labor relations specialties include planning programs, increasing effectiveness of a negotiating team, coordinating, and updating job skills, improving organizational effectiveness and increasing production.

Osipow (1982) emphasized working toward a goal of alleviation of work stress through advocating systems changes, redesigning jobs and work systems, and studying group processes. Watkins (1983) defined skills pertaining to evaluation and individual counseling pertinent to an individual's work life. Super (1980) supplemented these with even more demanding and essential functions of restructuring the organization, the community, the institution, and the environment.

In summary, counseling psychologists consult with administration

regarding recruitment and selection, promotion decisions, program evaluation, performance appraisal, assessment, individual needs, and organizational development (i.e., answered questions of organizational structure meeting the demands of the job)

Studies of Rehabilitation Counselors

Rehabilitation counselors addressed the very narrow and highly technical area of placement of disabled individuals. Reagles (1981) reviewed services required for Projects With Industry (PWI), which is a government-sponsored joint effort of industry and rehabilitation personnel to improve placement. This involves training, supervision, a trial time on the job, and job adjustment counseling.

McCarthy (1982) and Vandergoot (1982) expressed the need for cultivating job placement through networking. Vandergoot (1982) further described an Industry-Labor Council where liaison skills were used to meet needs of unions, employers, and rehabilitation counselors. These skills made it possible to share resources, to identify problems through networking, and to problem solve within a task force.

Worrall and Vandergoot (1982) researched rehabilitation clients who were predicted at a better-than-chance rate to be highly likely to be unsuccessful. The regression analysis revealed the need for liaison skills with employers. Liaison skills with both the client and the business, evaluation skills relating to work adjustment in a sheltered setting, research skills using past work records, and evaluation skills using paper-pencil tests to predict future job performance relating to ego strength or self-concept in the role of the worker are all recommended tools for successful job placement.

In summary, rehabilitation counselors' skills include acting as an advocate in terms of acculturating administrators to abilities of disabled people through consultation in the area of recruitment, selection, and promotion of personnel, performance appraisal, and organizational development as they relate to productivity

Studies of Industrial Psychologists

Scarpello and Campbell (1983) researched job satisfaction. A study was conducted for the purpose of exploring whether or not occupational and career variables could differentiate people who had higher or lower job satisfaction needs. Results suggested that overall job satisfaction alone could not be assessed without also considering relationships among individual occupational commitment and considering aspiration levels in conjunction with organizationally relevant issues, such as turnover, productivity, and quality of working life.

Norton and Gustafson (1982) acknowledge that productivity is increased by selecting and retaining competent personnel. Relevant skills include planning assessment centers, researching the use of traditional cognitive ability tests, developing job simulations, and educating business to the idea of management of careers rather than management of positions.

Stagner (1982) reinforced the need for selection skills including administration and selection of manual dexterity tests (particularly fine motor coordination) and personality variables inventories (especially stress tolerance and ability to cope with emergencies). He also advocated research skills regarding "face validity" of testing instruments (a rejectee would be less likely to challenge the procedure

if the testing was obviously closely related to job duties), cognitive functions (in the area of high-technology jobs), performance appraisal, and evaluation of products (while remaining ignorant of the identity of the employee) Additional issues to be researched are motivation, job satisfaction, job redesign, and organizational development with the goal of allowing workers to have some input into their patterns of work In conclusion, Stagner (1982) reviewed skills receiving current attention, which are liaison skills with unions and counseling roles appropriate to applicants who had been rejected by the personnel department, thus alleviating the threat of possible litigation against the organization

Summary

As might have been expected, the professional categories of vocational school psychology, counseling psychology, rehabilitation counseling, and industrial psychology have several areas of service in common relating to the occupational services domain The topics in Table II were derived from general statements made by leaders in the field regarding the trends within the professional area The topics applicable to all four service areas were advancement and promotion decision consultation, training, assessment, liaison functions between administration and workers, and recruitment and selection The topics of organizational development and program evaluation which involve departmental programs, scheduling programs, evaluative programs, the work environment, and research programs were included in the literature of all professional areas except rehabilitation counseling The topic of performance appraisal used in evaluations for promotions was found

TABLE II
SUMMARY OF LITERATURE IN OCCUPATIONAL SERVICES

Topic	V	C	R	I
Recruitment and selection procedures	x	x	x	x
Advancement and promotion decision	x	x	x	x
Program evaluation (i e , department programs, scheduling and evaluation programs, work environment and research programs)	x	x		x
Performance appraisal			x	x
Job analysis and design	x			x
Training	x	x	x	x
Assessment	x	x	x	x
Liaison with administration	x	x	x	x
Organizational development	x	x		x
Liaison with community agencies	x	x	x	x
Behavior intervention		x		
Counseling workers		x		

V = vocational school psychologists
 C = counseling psychologists
 R = rehabilitation counselors
 I = industrial psychologists

in the industrial psychologists' and rehabilitation counselors' literature. The skill of liaison with community agencies was addressed by counseling psychologists and rehabilitation counselors. Vocational school psychologists and industrial psychologists discussed the uses of job analysis and job design. The topic of organizational development was explained and advocated in the literature of vocational school psychologists and rehabilitation counselors.

The topics mentioned above indicate a need for vocational services related to employee needs in the areas of job training, task performance, work behavior, and communications. Services related to needs of the employer are training, program analysis, system analysis, productivity, work goal setting, communications, recruitment, selection, and promotion.

Career Development Services

Definition

School psychologists discuss the meaning of career development services in terms of providing an individual with the skills to develop an awareness of his or her own unique vocational traits and knowledge of available vocational fields (Hohenshil, 1975). These points are supplemented by underscoring skills in the fields of human development and learning as they relate to both typical and atypical students. Guidubaldi (1982) calls attention to the fact that career options change as changes are seen in technology, adult sex-roles, individuals' capabilities, and work environments. Counseling psychologists specify such points as interaction with societal changes and knowledge of

human development as essential for giving meaning to career development (Gysbers, 1984)

Career patterns emerge from a variety of social backgrounds (Krumboltz & Menefee, 1980) and the interaction between personal needs and mental health needs (Osipow, 1982). Provision of services for the effects on individuals' careers in terms of firing and promotion exemplify the employers' needs for this area of service (Toomer, 1982). Salomone and Paige (1984), rehabilitation counselors, defined career development services in terms of limiting factors in society. Employment-seeking stumbling blocks are factors which naturally would affect the possibility of a good job match between abilities and job rewards.

Rehabilitation counselors dealt with career development services in terms of educating and motivating disabled individuals as a result of changing societal expectations and individual expectations (Worrall & Vandergoot, 1982) and modifying the environment in order to achieve independence (Roessler, 1983). Industrial psychologists take the perspective of the employer when considering needs of the worker. Stagner (1982) advocates treating the individual as a total entity with emotions and perceptions, not simply as a role receiver.

In summary, definitions of career development services include matching individual maturity, coping styles, training background, skills, job availability, and individualized adaptive needs within the work environment. Services must take into consideration sociological backgrounds of individuals and sociological stumbling blocks affecting certain individuals. Finally, services include communication, management, and a perspective on perceiving an individual worker in terms of a developing career rather than as a role receiver in the workplace.

Definition for Purposes of this Study

Career development services are services available to employees and employers which assume both a formative and a summative perspective of the person/environment fit. Because a career spans a lifetime, it is affected by personal goals, maturity levels, individual needs, environmental circumstances, and organizational demands. Career development services accent high individual self-esteem, job competence, and responsible involvement in one's worklife.

Studies of School Psychologists

Hohenshil and Warden (1978) described direct functions related to career development which are the administration of vocational aptitude batteries, vocational interest inventories, career maturity measures, and environmental assessment techniques such as work sampling and job analysis. Counseling functions are work adjustment counseling, job interviewing procedures, testing of preparation for employment, and vocational decision-making. Functions related to on-the-job behavior training are values clarification, crisis-oriented personal/social counseling, and developmental counseling skills. Indirect services in this area are inservice programs, curriculum modification, and workplace modification which allow for career building and are suitable to everyday situations.

Bardon (1972) pointed out career-related benefits which result in growth in the area of self-esteem. A student well placed in a vocational or vocational training program has a perfect opportunity to master tasks which were valued by society. He experiences success and failure

in order to achieve mastery, and these perceived experiences produce feelings of satisfaction, self-enhancement, and a desire to achieve more difficult tasks

Hohenshil (1975) reviewed evaluation services which encompassed the broad array of career development services programs and which served a range in ages from Kindergarten to postsecondary years. He explained that vocational education programs could be considered as a skill training component of a comprehensive skill career program. Furthermore, in order to provide services, a vocational psychologist used skills in the following areas: knowledge of vocational aptitudes, vocational interest batteries, training, career development related to program placement, and human development.

Fagan and Hohenshil (1976) directed attention to the necessity for vocational training programs to give information regarding careers related to an individual skill training program. Career education was outlined as consisting of an awareness phase, an exploratory phase, and a career preparation phase culminating in a job placement and follow-up phase.

Miller and Schloss (1982) called attention to other areas of expertise in which a vocational school psychologist could provide services. These services include program evaluation in the area of curriculum and workplace modification, developing grants to initiate new vocational programs for the handicapped, symptom identification, and mainstreaming strategies.

Maher and Illback (1982) also advocate use of program evaluation skills, adding the following functions: assisting special service teams to manage conflict, improving quality of team decision-making, assisting

with policy evaluation, helping to change organizational structure, and functioning to facilitate mainstreaming of handicapped pupils

Spungin and Swallow (1975) outlined areas where the psychologist could give assistance to the instructor in order to open doors to career development of the disabled individual. Three functions considered to be most useful were assessment, strategy-making, and evaluation. The evaluator observes task performance, noting how the individual organizes his resources to meet the demands of the task, the way the individual arrives at a solution, or how he adapts to impaired areas of functioning. Analytical data collection was used to determine exactly what situations or behaviors caused the individual difficulty and in which setting these occurred. Sullivan and Vernon (1979) and Bauman and Kropf (1979) supplemented this information by describing test interpretation. Test results should accommodate case history data, personal experiences with the client, and behavioral observations of people knowledgeable about the client's disability.

In summary, vocational school psychologists have listed the needs for services in the career development domain in terms of individual career needs, through use of assessment, work samples, job-related counseling, and behavior-related counseling. Other needs for services in terms of employer input into career development are job analysis, job modification, program analysis of the workplace, workplace modification, program evaluation of written instructions, and program evaluation of mainstreaming.

Studies of Counseling Psychologists

Gysbers (1984) reflected several major concerns affecting America's economic, occupational, industrial, and social environments. Occupational and industrial specializations, social structures, social values, and social and political groups demanding equality are considerations which predispose change. In summary, Gysbers (1984) pointed to societal conditions which have brought about the realization that career development is a lifespan phenomenon and that all individuals could benefit from career development programs and services.

Toomer (1982) remarked on emerging career service needs which include internal formal outplacement programs and selection for promotion and transfer. Osipow (1982) described perplexing workplace dilemmas predicted on expectations of professional achievement, the dilemma of repetitive work, and the complication of high stress associated with high risk-taking (especially among small business owners).

In summary, counseling psychologists worked with the individual in terms of job-related counseling, behavior-related counseling, and career development counseling. These professionals also worked with management in terms of consultation regarding accommodation to a satisfactory career.

Studies of Rehabilitation Counselors

Worrall and Vandergoot (1982) featured the concept of development of satisfying careers for people with disabilities. This consisted of independent living skills, social skills, appropriate placement, plans for a lifetime career looking at advancement, and adjustment to the

work environment

Roessler (1983) and Reeder and Linkowski (1976) outlined ways the rehabilitation counselor could assist individuals with severe disabilities toward a career plan through an independent living paradigm. This included the stigma value of the disability, family and physical barriers, human and legal rights, and communication skills. Services related to independent living skills were very broad in scope yet very crucial.

In summary, rehabilitation counselors worked with individuals regarding job-related counseling, independent living skills counseling, and career development consulting. Work with management included job modification and consultation regarding individual needs.

Studies of Industrial Psychologists

Norton and Gustafson (1982) outlined several areas of career development service which were being studied. The areas are comprised of cognitive ability tests, job simulations, performance ratings, and human resources management which emphasize management of careers rather than the management of positions contingent upon a longer range perspective in making personnel decisions.

Stagner (1982) reported that changes were necessary to maximize productivity of employees without violating Equal Employment Opportunity Commission (EEOC) requirements. He predicted a growing need for psychologists to acquire skills in the area of economic theory, sociological concepts, and labor law. He enumerated new insights to be cultivated in the selection of tests through information processing in the study of attitude measurement, attitude change, attribution research,

and small group behavior (which are components of social psychology) and in specialized research on aging as an element of developmental psychology Humanization of the workplace including treating an individual as an entity with emotions and perceptions--not simply as a set of test scores, a set of skills, or a role receiver--was stressed by Stagner (1982)

In summary, industrial psychologists worked primarily with management in order to convey the concepts of career development Tasks within the role of the industrial psychologist were job analysis, performance ratings, knowledge of labor laws, research regarding characteristics of stages of career development, knowledge of social psychology, knowledge of information processing, and knowledge of developmental psychology concerning adults in vocational settings

Summary

Topics in the literature pertaining to vocational services in the career development services domain were varied according to professional categories (Table III) The topics of assessment, work samples, and job analysis were addressed by vocational school psychologists and industrial psychologists

Job-related counseling was discussed by vocational school psychologists, counseling psychologists, and rehabilitation counselors Behavior-related counseling was discussed by vocational school psychologists and counseling psychologists Rehabilitation counselors were the only group to address the need for independent living skills counseling The above-mentioned topics suggest services to employees which relate to job-related interests, individual needs, job demands, individual job

TABLE III
SUMMARY OF LITERATURE IN CAREER DEVELOPMENT SERVICES

Topic	V	C	R	I
Assessment	x			x
Work samples	x			x
Job analysis	x			x
Counseling (job-related)	x	x	x	
Counseling (behavior-related)	x	x		
Counseling (independent living skills)			x	
Consulting (career development)		x	x	
Consulting (individual needs with management)		x	x	
Consulting (personnel career decisions)				x
Program analysis (workplace)	x			
Workplace modification (strategy)	x			
Job modification	x		x	
Program evaluation (written instruction)	x			
Program evaluation (mainstreaming)	x			
Performance rating				x
Knowledge of labor laws				x
Research				x
Knowledge of information processing				x
Knowledge of social psychology				x
Knowledge of developmental psychology				x

V = vocational school psychologists
C = counseling psychologists
R = rehabilitation counselors
I = industrial psychologists

fit, work behavior, and job performance. Consultation with management regarding individual needs and career development were topics discussed by counseling psychologists and rehabilitation counselors. Consultation with management regarding personnel-related career decisions, performance ratings, knowledge of labor laws, research, understanding of information processing, knowledge of social psychology, and knowledge of developmental psychology were addressed by industrial psychologists alone. The topics of program analysis of the work setting, program evaluation of written instructions in specific career areas, program evaluation regarding mainstreaming in specific career areas, and job modification were strategies of workplace modification discussed by vocational school psychologists alone. Finally, the topic of job modification was addressed by both vocational school psychologists and rehabilitation counselors. These topics may result in needs for services to employers which address worker competence, selection, promotion, productivity, and performance.

Summary of Literature Review

The literature review brought about an awareness of the complexity and interdependence of needs and services within the workplace. An integrated look at current services reviewed in this chapter permitted an observation of areas of investigation addressing vocational services. Personal development services included communication training, assessment of personal problems, counseling with individuals on improving problem-solving abilities, consulting with management, planning evaluation of systems and programs within the business setting, and planning programs which provide coping skills for typical problems among

certain groups of employees, such as handicapped individuals

Services in the domain of occupational services included assessment and planning relating to job designs, planning training programs, planning for an appropriate work environment, assessment of individual job fit, coordination of resources within and outside the organization, employer-employee communication training, and education and counseling relative to appropriate workplace behavior

The third domain of career development services included individual job fit assessment skills, job requirement program analysis, individual problem counseling, education regarding fulfillment of job roles, consulting which encourages individual and organizational career planning, and evaluation which updates job and workplace expectations

Authors of publications reported in this study have been listed in Appendix A according to contributions in the three domains of personal development services, occupational services, and career development services. Tables I-III are listings which provide an overview of the literature sources. The number of topics discussed in each professional group allows the researcher to make generalizations regarding the amount of attention given each domain. Generalizations which are made reflect areas of emphasis perceived by each professional group to be appropriate services to worklife development. Vocational school psychologists addressed approximately the same number of topics in each of the three domains. Counseling psychologists discussed relatively fewer topics in the career development services domain than in the other domains. Rehabilitation counselors discussed fewer topics, in general, although they were evenly distributed between the domains. The topics which were discussed were very comprehensive and covered

specific handicapping characteristics in-depth. Industrial psychologists addressed fewer topics in the personal services domain than in the other two domains, which was not surprising because much of the literature discussed the need to develop more research in the human element of the workplace.

The collection of this information led to an appropriate assumption that vocational school psychologists addressed a comparable number of vocational development areas of service to other professionals who have been traditionally working in business settings. Because it has been demonstrated that vocational school psychologists have developed a useful variety of vocational services, a study will be made of actual services which vocational school psychologists are prepared to provide in the field. Businesses will also be assessed for the need for their services to be provided. The method of gathering this information will be described in Chapter III. This information will be analyzed in Chapter IV, and Chapter V will give implications for use of the information gained.

CHAPTER III

METHODOLOGY

Introduction

The method used in this study is descriptive in nature. This method was selected in order to identify and investigate areas of need for vocational services. These needs are discussed in relationship to vocational services which vocational school psychologists feel they are trained for in order to establish a direction for further studies of this professional field of service.

Procedure

Subjects

The subjects used in the research consisted of people working in medium- to large-size businesses in Houston, Texas, and vocational school psychologists located in 17 states. Inasmuch as vocational school psychologists had not been identified by any compiled source, members of the National Association of School Psychologists (NASP) organization's National Committee on Vocational School Psychology were contacted to assist with the formation of a list. Correspondence was mailed to individuals on the list, and they were asked to identify psychologists known to them as having experience in the area of vocational school psychology. These names were cross-referenced when possible.

with the membership roster of the NASP. Eighty-five members were so identified and were then mailed an inventory with a cover letter requesting a response.

Responses were obtained from 47 psychologists. The mean amount of experience reported by the group was 11 years. The group consisted of individuals with six different types of experiences: 25% practitioners, 19% trainers of psychology students, 17% others (supervisors and administrators), 10% trainer/others, 16% trainer/practitioners, and 16% practitioner/other. The business group was selected from businesses belonging to the Southwest Houston Chamber of Commerce. Businesses with more than 250 employees were provided in a separate listing created by the Chamber of Commerce and identified as medium- to large-size businesses. Of these, 85 were randomly selected, and contacts were initially made by telephone with the Chamber of Commerce member. The above mentioned person then hand-delivered the questionnaire with a cover letter to a person in a supervisory position within his company for a response. The response was then returned to the researcher in a self-addressed return envelope. Responses were obtained from 37 business people with an average of 13 years' experience.

Instrument

The Vocational Services Inventory (VSI) was first written in February, 1985. The VSI was developed to measure the vocational service needs of businesses and perceptions of vocational school psychologists concerning training which prepares them for service delivery appropriate to business settings. The three subareas of the Vocational Services Inventory are personal development services

(services rendered which are unique to each individual in the work force), occupational services (services rendered which are unique to work tasks required by an employer), and career development services (services which are unique to an individual but influenced by individual decisions, employer decisions, and environmental conditions) The questions were written in the form of short vignettes to ensure simplicity and clarity of the services described

A panel of experts was selected to contribute to the development of the questionnaire through its analysis and suggestions concerning the instrument The people selected for this jury were vocational research experts, educational administrators, and business people from personnel departments of large businesses The educational administrators represented city, county, and state educational organizations The research experts were from state and county level organizations The business people were selected from personnel sections of large business organizations in Tulsa, Oklahoma These individuals were mailed a copy of the instrument and a cover letter requesting their input Suggestions included rewriting the questions in order to clarify them and shorten them It was also suggested that the directions be more specific The jury of experts contributed to content validity which Nunnally (1978) describes as a subjective observation of measurement items as they relate to the overall direction of the test Improvements were made by reworking the wording of the vignettes and the instructions which accompanied each form of the inventory Corrections were made, and the final version was printed

Two forms of the inventory were developed Form A of the Inventory, to be administered to certified school psychologists working in

vocational/secondary settings, was designed to elicit respondents' perceptions of their qualifications to provide particular services. Form B of the Inventory, for business personnel, was designed to elicit perceptions of the need for a particular service which is made available to the worker at the expense of the organization. Although the inventory questions were identical, the instructions of each form were adapted to apply to each group being surveyed. Test-retest reliability and internal consistency measures were obtained by administering the instrument to a group of school psychology graduate students and business people in supervisory positions with a medium- or large-size business. The analysis of reliability data from the pilot study (Tables IV - VIII) and the number of complaints from participants in the pilot study referring to the length of the instrument resulted in the inclusion of only the personal development services area of the instrument. The final form of the instrument was administered to vocational school psychologists from 17 states and business people in medium- to large-size businesses (Appendix D).

The scores of the position responses within each subarea were composed of different responses for each population. Form A was administered to vocational school psychologists (6=skills definitely trained and 1=skills definitely not trained), and Form B was administered to supervisory personnel in business settings (6=services definitely needed and 1=services definitely not needed). The position responses were then summed to provide three subscores representing the three areas of vocational services, Items 4, 5, 10, 11, 13, 14, 17, 21-23, 36, and 38 were representative of the personal development services component. Items 1-3, 6, 8, 16, 18-20, 24-26, 29, 30, and 37 were

TABLE IV
PERSONAL DEVELOPMENT SERVICES ITEM ANALYSIS

Item	Business Personnel						Psychologists					
	Pretest			Posttest			Pretest			Posttest		
	M	SD	r	M	SD	r	M	SD	r	M	SD	r
4	4 1	1 6	.30	4 4	1 1	.31	4 1	1 2	.79	4 3	1 2	.59
5	5 2	8	-.12	5 2	9	.36	4 3	1 0	.88	4 5	8	.72
10	4 0	1 8	.47	4 5	1.5	.38	2 9	1 5	.42	3 4	1 5	.74
11	3 9	1 3	.53	3 9	1 5	.42	3.4	1 5	.55	3 5	1 3	.88
13	4 6	1 5	.39	4 9	1 2	.64	3 8	1 1	.84	4 0	1 0	.70
14	5 3	9	.44	5 3	8	.42	3 7	1 3	.69	3 1	1 4	.85
17	4 3	1 1	.60	4 2	1 1	.69	4 4	1 0	.73	3 9	1 3	.64
21	4 7	1 0	.62	4 2	1 5	.71	3 9	1 2	.85	4 3	1 1	.82
22	3 8	1 6	.59	3 8	1 6	.59	3 7	1.3	.70	3 9	1 2	.83
23	3 7	1 4	.63	4 1	1 3	.48	3 7	1 5	.75	3 8	9	.72
36	3 5	1 7	.43	4 5	1 3	.41	4 3	1 2	.55	3 7	1 5	.76
38	4 1	4 6	.64	4 9	8	.45	4 5	9	.40	3 8	1 4	.79

TABLE V
OCCUPATIONAL DEVELOPMENT SERVICES ITEM ANALYSIS

Item	Business Personnel						Psychologists					
	Pretest			Posttest			Pretest			Posttest		
	M	SD	r	M	SD	r	M	SD	r	M	SD	r
1	4.9	1.5	.43	5.1	1.3	.54	3.7	1.4	.75	3.5	1.5	.58
2	4.1	1.4	.22	4.4	1.4	.40	2.1	1.2	.47	2.3	.9	.26
3	4.5	1.5	.29	4.9	1.0	.30	2.9	1.6	.75	2.9	1.6	.58
6	3.4	1.3	.90	3.8	1.2	.62	4.6	1.1	.54	4.3	1.2	.53
8	4.9	1.3	.54	4.8	1.3	.58	3.3	1.5	.46	3.4	1.3	.53
16	4.1	1.9	.48	4.8	1.6	.68	4.6	1.1	.02	5.1	.5	.25
18	5.6	1.3	.36	5.5	1.3	.46	4.5	1.0	.57	4.1	1.2	.29
19	5.1	1.1	.28	4.9	.8	.04	4.1	1.0	.86	3.8	1.1	.65
20	4.3	1.2	.26	4.1	1.0	.01	4.7	1.0	.54	4.2	1.1	.28
24	3.5	1.8	.42	3.7	1.5	.58	4.9	.8	.50	4.3	1.3	.76
25	3.9	1.8	.07	4.5	1.2	-.26	3.4	1.5	.70	3.8	1.3	.60
26	4.4	1.7	.40	4.2	1.6	.40	3.9	1.3	.54	4.7	1.4	.40
29	3.9	1.3	.16	3.7	1.0	-.10	4.3	1.3	.87	4.9	.9	.75
30	4.5	1.4	.15	4.1	1.3	.13	4.4	1.1	.50	4.5	.7	.28
37	3.5	1.6	.61	4.2	1.4	.64	3.9	1.5	.32	3.7	1.5	.57

TABLE VI
 CAREER DEVELOPMENT SERVICES ITEM ANALYSIS

Item	Business Personnel						Psychologists					
	Pretest			Posttest			Pretest			Posttest		
	M	SD	r	M	SD	r	M	SD	r	M	SD	r
7	4.3	1.4	.25	4.3	1.6	.29	3.7	1.3	.48	3.9	1.4	-.19
9	4.5	1.2	.23	4.3	1.2	.23	4.2	1.1	.66	3.8	1.1	.27
12	3.7	1.7	.32	4.5	1.4	-.07	3.6	1.2	.50	3.5	1.5	.51
15	4.1	1.5	.46	3.5	1.7	.40	4.6	1.1	.64	4.9	.9	.67
27	4.5	1.2	.58	4.3	.9	.72	4.2	1.1	.87	4.3	1.3	.66
28	2.9	1.5	.60	3.5	1.5	.55	4.7	.8	.61	4.8	1.1	.50
31	3.6	1.5	.53	4.1	1.2	.39	4.1	1.2	.87	4.4	1.0	.75
32	5.2	.8	.29	4.8	.7	.14	3.7	1.2	.72	3.9	.9	.48
33	4.9	.9	-.0	5.0	.8	-.11	3.8	1.4	.41	3.9	1.3	.23
34	3.8	1.7	.57	4.1	1.4	.36	4.3	1.2	.71	4.0	.9	.47
35	3.9	1.7	.21	3.7	1.6	.43	4.7	1.0	.65	4.9	.6	.69

TABLE VII
SUBTEST RELIABILITY CORRELATION COEFFICIENTS

	Personal development services		Occupational development services		Career development services	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
Business	81	82	76	74	72	64
Psychologists	92	94	88	85	90	77

TABLE VIII
CORRELATION COEFFICIENT OF PRETEST AND POSTTEST

	Personal development services	Occupational development services	Career development services
Business	73	51	37
Psychologists	.74	61	68

representative of the occupational services component. The remaining questions (Items 7, 9, 12, 15, 27, 28, 31, and 32-35) were representative of the career development services component. This was a self-administering instrument, requiring approximately 20 minutes for completion.

A pilot study was conducted to obtain test internal consistency and test-retest reliability. This consisted of administering the inventory to a group of 15 certified school psychologists who were working on their doctorates in school psychology and a group of 15 supervisory level business people working in medium- and large-size businesses. Because the test-retest information collection was conducted by mail, the time between tests was from four to ten days. Reliability of the inventory was determined by the coefficient alpha test of internal consistency on each subarea and for the total instrument. Internal consistency estimates reliability based on the average correlation among items within a test and the total number of items (Nunnally, 1978). Test-retest reliability data were analyzed using the Pearson correlation coefficient which investigates the degree of relationship between the sets of pretest and posttest scores (Nunnally, 1978).

Items were clustered by the researcher in two components to analyze the results. One component consisted of topics addressed by the items. The five topics addressed were issues involving individual physical limitations (Items 3-5), emotional limitations (Item 1), environmental limitations (Items 6 & 10), behavioral limitations (Items 2, 7, 8, 11 & 12), and social limitations (Item 9), which affected workplace efficiency. The second component included services which were composed

of five skill areas. These skills consisted of identification of etiologies of problematic situations (identification), short-term, on-site counseling (counseling), coordination and organization of people and systems (coordination), referrals to organizations outside the business (referrals), and planning programs which may have been relevant to operational or instructional needs (planning). Items related to the skills just described are: Items 8, 11, and 12 (identification), Items 3-5, 8, and 10 (counseling), Items 1, 3-7, 9, 11, and 12 (coordination), Items 2, 8, and 10-12 (referral), and Items 3, 4, 6, 7, and 9-12 (planning). Each item was composed of one topic and several service skills.

Instructors

To elicit proper and timely responses, cover letters were added to both forms of the Inventory which explained the need for the information and outlined the procedure for returning the completed inventory (Appendix D). A deadline for returning the instrument within ten days was included. To encourage a response, the researcher sent follow-up letters to psychologists and made follow-up telephone calls to the business people.

Limitations

As previously stated, the sampling of vocational school psychologists made generalization possible only to vocational school psychologists who responded to this survey. In addition, the responses were on a voluntary basis. There were two ways in which the personnel sampling generalization is restricted. The size of the business was

a restricting factor because the number of employees affects the number of services offered. A second restricting factor was the geographical location (Houston, Texas), which reflected opinions of employees of businesses choosing to locate in this particular area. Again, generalization of responses was also limited to a voluntary audience.

Data Analysis

To select items for the instrument, the researcher conducted a pilot study consisting of responses from 15 vocational school psychologists and 15 supervisory level business people. Item analysis information, including correlates of item with the total subtest scores, item mean scores, and standard deviations, is presented in Tables IV-VI. Test and retest item correlations are presented for each professional group in the three areas of vocational services. A correlation of .3 was arbitrarily set as the minimum value for an acceptable item test correlation.

Internal consistency reliability of the items on the personal development services subtest meet the minimum requirement of a .3 coefficient with the exception of Item 5 and are considered useful for further research. The occupational services item correlation coefficients for Items 3, 19, 20, 25, 29, and 30 are too low to meet minimum coefficient requirements in both test and retest situations for the business population. Coefficients found for the psychologist population were generally acceptable with the exception of Items 16, 18, 20, and 30. All item coefficients of the career development services item analysis reflected a good relationship with total subtest scores for the psychologist population. Items 7, 9, 32, 33, and 35

depict very low correlations for the business population and are unacceptable for continuation of research

The reliability coefficient for each of the three subtest coefficients for both test and retest is reported in Table VII. The coefficient was obtained by finding the average correlation between items on the test and total subtest scores (Nunnally, 1978)

The personal development services area had high internal consistency coefficients for both the psychologists (.92 and .94) and business populations (.81 and .82). The coefficients reflecting the relationship of the occupational services subtest and career development services subtest areas on both pretest and posttest were also sufficiently high to warrant further research.

The Pearson product-moment correlation coefficient between the sets of test and retest scores was used for the reliability coefficient of stability (Nunnally, 1978). Table VIII presents coefficients for both business personnel and psychologists reflecting the relationship between test and retest scores.

Test-retest reliability coefficients of .73 for business personnel and .74 for psychologists were obtained on the personal development subtests. With the minimum acceptable correlation coefficient being .60, the occupational services area coefficient of .51 for the business personnel and .61 for psychologists were considered unacceptable for further research. The career development services area coefficients also depicted poor relationships between pretest and posttest of .37 for business personnel and .68 for psychologists and were not considered acceptable for further research.

The two subtests were omitted for two reasons. The first reason

was the need for more work on several items and another pilot study before continuation of the current research as originally planned. The second and most explicit reason is the length of administration of all three subtests in one instrument demanded an amount of concentration and time which was particularly frustrating to the business population. The pilot study questionnaires were returned in several instances partially filled out with a written explanation added that said the test was too lengthy. Therefore, the inventory was rewritten using the 12 Likert-type items from the personal development services subscale and the two open-ended questions. The first open-ended question requested a list of the top five items on the inventory that the respondent believed were the most relevant and useful items relating to the vocational services described in the inventory. The final question requested a list of other service areas which were recommended additions to the inventory. The inventory was then sent to the two professional groups consisting of 85 business people and 85 vocational school psychologists.

Reliability and results of the final inventory are presented in Appendix E. Individual inventory items are listed in a table format wherein item mean scores, standard deviations, correlations, and the subtest total correlations are presented. This allows for the inspection of internal consistency coefficients which depicted the relationship of the items individually and totally for the inventory. Additionally, in Chapter IV, this information is ranked according to item mean scores. Differences according to agreement with items within the area by profession are addressed, and areas of training that are relevant to the area are discussed. Information is also presented

using the responses from the first open-ended question, asking for the top five most useful items. The five items ranked highest for the personal development services area are presented according to usefulness to business people and training of psychologists. Areas for future research were generated on the top five ranked items, and similarities and differences between business personnel and vocational school psychologists imparted areas of training that were relevant to personal development services. Finally, the researcher presents areas which respondents believed should be covered in the inventory by rank and frequency selection (Appendix E).

Research Method

The design used in this study is that of a descriptive survey study. This methodology was selected to identify areas of training of vocational school psychologists' services and areas of need for vocational services in business. Results of this study are tentative in nature and do not permit adoption of inferential conclusions. The methodology allowed for the identification of areas which can be examined in an inferential manner at a latter date.

This study attempted to answer the following questions:

1. Are there differences and/or similarities in the perceptions of training by vocational school psychologists and perceptions of need by business personnel regarding delivery of personal development services?

2. Are there differences and/or similarities in usefulness of services for vocational school psychologists and business personnel?

3 Are there differences and/or similarities between business personnel perceptions of need for services in the area of personnel development services and usefulness of these services?

4 Are there differences and/or similarities between school psychologists' perceptions of training in delivery of vocational services and usefulness of this training in the area of personal development services?

Chapter IV will describe results obtained from the study and will address the questions listed above Chapter V will give implications for further use of the information gained

CHAPTER IV

ANALYSIS OF DATA

The purpose of this chapter is to present the results of the statistical analysis utilized for this descriptive study. The information is discussed in relationship to the questions identified at the end of Chapter III.

Discussion of the Results

Responses were obtained from 47 psychologists, representing 17 states, having an average of 11 years' experience. Responses from the business population represented 37 individuals with an average of 13 years' experience, all were from the Houston, Texas, area. Information was obtained concerning test reliability and validity (Appendix E).

Results in Table IX describe psychologists' perceptions of training and industry's perceptions of need in the area of personal development services. Business people ranked behavior limitations, physical limitations, and environmental limitations in the upper portion of items denoting a need for these service topics. They ranked social limitations and emotional limitations in the lower portion of items indicating a lesser amount of need for these service topics. Service skill area rankings by business people were distributed throughout the upper and lower portions of rankings. It was assumed that these service skills were needed equally, because no outstanding likes or dislikes could be

TABLE IX
 RANKING BY MEAN LIKERT SCORES OF PSYCHOLOGISTS' AND BUSINESS
 PEOPLE'S RESPONSES TO PERSONAL DEVELOPMENT SERVICES

Psychologists (Training)					Business People (Need)				
Rank	Item	Topic & Skills	M	SD	Rank	Item	Topic & Skills	M	SD
1	7	Behavioral limitations Coordination Program planning	4.29	1.4	1	2	Behavioral limitations Counseling Referrals	5.21	1.2
2	2	Behavioral limitations Counseling Referrals	4.08	1.4	2	12	Behavioral limitations Identification Coordination Referrals Program planning	4.62	1.5
3	5	Physical limitations Counseling Coordination	3.93	1.6	3	5	Behavioral limitations Program planning Coordination	4.51	1.4
4	4	Physical limitations Coordination Program planning	3.87	1.6	3	5	Physical limitations Counseling Coordination Program planning	4.51	1.6

TABLE IX (Continued)

Psychologists (Training)					Business People (Need)				
Rank	Item	Descriptor	M	SD	Rank	Item	Descriptor	M	SD
5	1	Emotional limitations Coordination Program planning	3.83	1.5	5	5	Physical limitations Counseling Coordination	4.49	1.3
6	9	Social limitations Coordination Program planning	3.76	1.5	6	6	Environmental Coordination Program planning	4.35	1.4
7	8	Behavioral limitations Identification Counseling Referrals	3.74	1.5	7	11	Behavioral limitations Identification Coordination Referrals	3.86	1.4
8	12	Behavioral limitations Identification Coordination Referrals Program planning	3.65	1.6	8	10	Environmental limitations Counseling Referrals Program planning	3.51	1.5

TABLE IX (Continued)

Psychologists (Training)				Business People (Need)					
Rank	Item	Descriptor	M	SD	Rank	Item	Descriptor	M	SD
10	3	Physical limitations Counseling Coordination Program planning	3 57	1 6	9	4	Physical limitations Program planning Coordination	3 48	1.8
10	10	Environmental limitations Counseling Referrals Program planning	3 57	1 6	10	1	Emotional limitations Coordination Program planning	3 38	1.4
10	11	Behavioral limitations Identification Coordination Referrals	3 57	1 6	11	8	Behavioral limitations Identification Counseling Referrals	3 05	1 5
12	6	Environmental limitations Coordination Program planning	2 80	1 7	12	9	Social limitations Coordination Program planning	2 89	1.4

discerned

The psychologists' training items which were ranked in the upper portion of items are physical limitations, behavioral limitations, and emotional limitations service topics, however, environmental limitations services were ranked in the lower half of psychologists' skill topic service proficiency rankings. Psychologists ranked identification and referral service skills in the lower half of service skill training proficiency, this inferred an incomplete training background in these areas. Coordination, planning, and counseling service skills were found several times in the upper ranks of both business need and psychologists' training.

In Table X, business people and psychologists demonstrated a tendency to favor all service skill areas by ranking items by frequency in such a manner as to disperse choices throughout the upper and lower portions of frequency rankings. The conclusion that these service skills were equally useful is made because no outstanding likes or dislikes could be discerned. A difference in the frequency ranks of the emotional limitation topics was signified by the psychologists' frequency ranks of usefulness of this topic in the upper portion of the items and the business people's ranks being found in the lower 50% of the items. A similarity in ranking of items was in the area of the social limitation topic, both professional groups ranked this topic in the lowest portion of the items.

The final question on the inventory asked for additional services to add to those already included in the Vocational Services Inventory (Appendix E). This information is reported according to frequency of suggestions. Because most items received a frequency score of 1, a

TABLE X
RANKING BY ITEMS BY OPEN-ENDED SELECTION FOR
PSYCHOLOGISTS AND BUSINESS PEOPLE

Psychologists (Training)				Business People (Need)			
Rank by f	Item	Topic & skills	f	Rank by f	Item	Topic & skills	f
1	7	Behavioral limitations Coordination Planning	24	1	12	Behavioral limitations Counseling Coordination Referral Planning	27
2	2	Behavioral limitations Counseling Referral	22	2	2	Behavioral limitations Counseling Referral	26
3	1	Emotional limitations Coordination Planning	20	3	3	Physical limitations Counseling Coordination Planning	22
4	12	Behavioral limitations Identification Coordination Referral Planning	18	4	5	Physical limitations Planning Coordination	18

TABLE X (Continued)

Psychologists (Training)				Business People (Need)				
Rank by f	f	Item	Topic & skills	f	Rank by f	Item	Topic & skills	f
5	5	10	Environmental limitations Counseling Referral Planning	15	5	11	Behavioral limitations Identification Coordination Referral	17
5.5	11		Behavioral limitations Identification Coordination Referral	14	6	7	Behavioral limitations Coordination Planning	16
7	5	6	Environmental limitations Coordination Planning	13	7	6	Environmental limitations Coordination Planning	14
7	5	4	Physical limitations Planning Coordination	13	8	10	Environmental limitations Planning Coordination Referral	10

TABLE X (Continued)

Psychologists (Training)				Business People (Need)				
Rank by f	Item	Topic & skills	f	Rank by f	Item	Topic & skills	f	
9	3	Physical limitations Counseling Coordination Planning	12	9	8	Behavioral limitations Identification Counseling Referral	9	
10	5	5	Physical limitations Counseling Coordination	11	10	1	Emotional limitations Coordination Planning	8
10	5	8	Behavioral limitations Identification Coordination Referral	10	11	4	Physical limitations Planning Coordination	7
12	9	9	Social limitations Coordination Planning	10	12	9	Social limitations Coordination Planning	1

discussion of the results would be inappropriate

The first question of this study contrasted vocational school psychologists' perceptions of abilities to deliver services with business people's needs for services. Psychologists' training needs revealed discrepancies with business people's needs in terms of mean ranks of topics and skills. Business people ranked behavior limitations, physical limitations, and environmental limitations in the upper portion of items denoting a need for these services. Business people ranked social limitation and emotional limitation topics in the lower portion of items indicating a lesser amount of need for these services. Psychologists disclosed two areas of training proficiency which were ranked in the lower portion of items, indicating a need for training skills. These areas were identification and referral skills. Psychologists' training proficiencies were ranked in relation to service topics in the upper portion of items for physical limitations, behavioral limitations, and emotional limitations, however, environmental limitations services were ranked in the lower half of psychologists' skill proficiency frequency rankings of service topics.

Psychologists' training and business groups' perceived needs were incompatible in three areas of service topics. The topics of emotional and social limitations were ranked in upper portion of psychologist's perceived training proficiency but in the lower portion of the business groups' perceived needs. The topic of environmental limitations was high in terms of mean rank agreement of need for the business group, but the psychologist group had a low mean rank agreement of training proficiency for provision of services in this topic area. The business population agreed with the need for all service skill areas.

Psychologists agreed that they were appropriately trained in counseling, planning, and coordination skill areas, but identification and referral skill related items were in the lower portion of the mean ranking of agreement with training proficiency.

The second question contrasted each group's perceptions of useful services in the workplace. Business people demonstrated a perceived usefulness for all service skill areas by ranking items in such a manner as to disperse choices throughout the upper and lower portions of rankings. The conclusion that these services were equally useful was made because no outstanding likes or dislikes could be discerned. Topics of services perceived as important by psychologists were ranked high in the areas of physical, behavioral, and emotional limitations, but lower rankings of needs for social limitation services and also rankings in the middle of the items for environmental topics were indicated. Psychologists' perceptions of useful skill services were all ranked in the upper half of the inventory items and signified a knowledge of the need for all skills reviewed in the inventory. The perception of the lack of need for social limitation services was compatible with business people's perceptions. Perceptions of a low need for physical limitation services were dissimilar to business people's reported need for the service. Finally, psychologists' perceptions of a usefulness for emotional topics was high and therefore incompatible with business people's perceptions of usefulness of this topic.

The third question of this study may be inspected with respect to business people's reported needs for services and their ranking according to usefulness in the workplace. There was no appreciable difference between items in which business people indicated agreement

with need (Table IX) and their ranking of useful skill services (Table X) Topics which tended to fall in the top half of the rankings were behavioral limitations, physical limitations and environmental limitations Topics which fell in the lower half of the rankings concerned social limitations and emotional limitations.

The fourth question of the study reviewed vocational school psychologists' agreement with areas of proficient skill training (Table IX) and the group's rankings of useful workplace services (Table X) Differences will be discussed first according to topics The social limitations topic was found in the upper 50% of the frequency ranks yielding agreement with training proficiency, however, it was very low in rank according to perceived usefulness of service. The environment limitation topic was ranked low in terms of agreement with skill proficiency, but was ranked in the middle of items reflecting useful services The emotional limitations topic was ranked in the upper half of both training skills and perceived usefulness The component of service skills indicated that the items in the areas of identification and referral skill training were in the lower portion of skill proficiency, but were distributed throughout ranks indicating usefulness of services

In summary, psychologists agreed that they were trained in dealing with social limitation topics, however, they did not perceive a need for this service in the business setting The topic of environmental limitations was an area needing training but was considered a relatively useful service in the business environment The topic of emotional limitations was indicated to be a trained skill and was also perceived as a useful skill

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

As was pointed out by Salomone and Paige (1984), the workplace is an environment for an individual to experience feelings of job satisfaction and increased self-esteem. A support service in the workplace was described by Hobby and Warden (1981) as a task which would require an integration of broad areas of knowledge applied to specific situations. The direction of this study was to address work-related needs through vocational services that were provided by industry and accommodated by a vocational school psychologist.

The literature review was structured using three domains of vocational services which were defined by the researcher and discussed in terms of literature in four professional categories (vocational school psychologists, counseling psychologists, rehabilitation counselors, and industrial psychologists). The three domains included personal development services, occupational services and career development services. The literature in the area of personal development services discussed the individual's worker's needs for support in order to direct one's labor toward a mutually beneficial goal. Approaches suggested by the literature referring to this need included services which positively affected one's living environment, professional image, and fit within workplace systems. The literature in the area of occupational services

dealt with services that supported an individual desiring to enhance work skills and contribute to the goals of industry. The collected literature suggested ways this may have been accomplished, which included services in coordination with management and employees. Services consisted of consultation regarding selection methods, training programs, job design, organizational analysis, and evaluation of job skills. The literature in the area of career development services dealt with support for an individual and an organization to adapt to a mutually satisfactory person/environment fit. The literature discussed such services in terms of awareness of personal goals, maturity levels, individual needs, management needs, and societal needs. The literature tentatively supported the three domains as categories for further study in the area of vocational services to work environments. A descriptive survey study was used to investigate the service delivery fit between the vocational school psychologists' roles and perceived needs of industry.

The inventory was originally planned to provide 38 vignettes which described situations applicable to three vocational service needs. Item content validity was obtained through the input of business personnel of the Advisory Committee (Appendix B). Item internal consistency and test-retest reliability were obtained through a pilot study. Reactions of participants of the study revealed a great deal of frustration expressed, especially by business respondents, because the items took some time to understand and respond to. After analyzing the results of the pilot study, inspection of reliability scores, and a review of the difficulties experienced when responding to the long form, the researcher distributed the inventory using items relating to personal development services. A response was obtained from 47 vocational school

psychologists and 37 Houston business people. Results of the instrument reliability and validity findings are reported in Appendix E

Conclusions

An analysis of the results is reported in relationship to questions posed by this researcher in Chapter III. The researcher analyzed inventory items using two components of vocational services. One service component consisted of service topics, and the second was composed of service skills.

1. Are there differences and/or similarities in the perceptions of training by vocational school psychologists and perceptions of need by business personnel regarding delivery of personal development services?

Similarities in business people's needs and psychologists' training proficiency were behavior limitation and physical limitation service topics and coordination, planning, and counseling service skills. Differences appeared in an implied gap between business people's apparent needs for environmental service topics and also psychologists' low indication of training proficiency in this area. Also, differences are implied in business needs for referral and identification service skills and in psychologists' training proficiency in these areas. The environmental limitation service topics and also referral and identification services skills disclosed a disparity in psychologists' training backgrounds for vocational services. The topics and skills mentioned above denote areas for further research.

2. Are there differences and/or similarities in usefulness of services for vocational school psychologists and business personnel?

Similarities found between the two professional groups indicated

that all service skill areas were useful services in the business setting. Both groups revealed a low preference for the social limitation service topic. A disparity in perceptions of useful service topics was indicated as the psychologists favored the emotional limitation service topic, and business people tended to rank this a low priority item. Because of the difference of perceptions between the groups concerning the emotional limitation topics, it would be fitting to investigate this topic further.

3. Are there differences and/or similarities between business personnel perceptions of need for services in the area of personal development services and usefulness of these services?

Business people's perceptions of service needs and useful services were in accordance with one another. Favored topics were behavioral limitations, physical limitations, and environmental limitations. Agreement was also indicated in a low amount of concern toward social limitation and emotional limitation service topics.

4. Are there differences and/or similarities between school psychologists' perceptions of training in delivery of vocational services and usefulness of this training in the area of personal development services?

Differences were implied between perceptions of physical limitation and social limitation service topics. These topics were areas wherein training was distinguished as adequate, but usefulness of the topics was inferred to be low. The environment limitation topic was implicated to be low in skill proficiency but was expressed as a moderately useful service. Finally, the emotional limitation topic was in agreement according to usefulness and training proficiency. A disparity was found between psychologist's training in identification and referral service

skills training and a perceived need for these service skills by business people

This diversity between services and needs gives some indication that identification and referral skill training areas and environmental limitation topics would be appropriate for further investigation in terms of vocational services. Further exploration of physical limitations and social limitation topics in relationship to the needs of business may also be considered useful areas for further research.

Suggestions

As school psychologists returned the inventories, comments were made by some respondents which were pertinent to the direction of vocational school psychology as a profession. It was certainly realistic of a few individuals to question the qualifications of a school psychologist to engage in working with adults in a business setting. These individuals expressed the opinion that a school psychologist served secondary level, handicapped vocational students in a school setting. In reply to this concern, the researcher expanded professional role concepts by citing Warden et al (1982), where the school psychologists' role description included work-related concepts and professional team functions in a vocational education setting. Vocational education includes on-the-job training which was reported by Evans and Herr (1978) to be a form of vocational training finding increasing use in public schools. On-the-job training consists of such programs as part-time cooperative education, work experience, work study, and simulated or actual production within the school which offer legitimate work experiences. Additionally, job and work concerns are appropriately

addressed for learning-handicapped individuals at the end of the traditional 12 school years, therefore becoming an adult level concern. School psychologists are automatically facing work-related issues when the vocational setting is introduced and responsibilities for the transition from secondary student to adult become blurred. Because of the issues just reviewed, a school psychologist functions within an area of service which stretches the use of trained skills into the business setting. The intent of this study is to explore the currently trained skills of practicing professionals and introduce the idea of serving business needs.

Another comment questioned the validity of the inventory items. Because validity measures the use to which the instrument is put (Nunnally, 1978), it should be kept in mind that the inventory was used in the context of a descriptive study.

In addition, psychologists suggested topics and skills (Appendix E) for additional inventory items which included occupational services and career development services. Occupational service items covered topics which include work systems, job requirements, treatment of work-related behaviors, and skill training needs. Career development topics included career planning and career decision-making topics. These services are a part of this research, which are intended to be included in the Vocational Services Inventory and are recommended by the researcher for further research topics.

Finally, it is important to point out that there were school psychologists participating in the survey who work in business settings. These individuals included comments supportive of the school psychologist functioning in the business setting. One particular response

emphasized the compatible manner in which school psychologists' training integrated with personnel psychology. The number of comments made by school psychologists reflected a need to generate discussion which may lead to further investigation of appropriate psychological and vocational services

Limitations

People working in the roles of vocational school psychologists were requested to participate in the study. This role is relatively new, and individuals within this role have, for the most part, individually tailored their educations to meet the demands of the role through workshops and extra coursework. Because the median amount of experience of respondents to the survey was 10 years, it was obvious that a good portion of these individuals received their training before a vocational school psychology training program was available. This varied training will naturally have an effect on the study. Business people participating in the study were from a southern metropolitan city. At the time of this study, this area was experiencing a high rate of unemployment which had an effect on the need for support services and the perceived importance of the study in general.

Assumptions

A major assumption of the study concerns the topics chosen for the inventory items (social limitations, behavioral limitations, emotional limitations, physical limitations, and environmental limitations in the personal development subtest of the instrument) and the skills chosen for items (identification, referral, planning, coordination, and

counseling) The topics and skills are used as descriptors of services to industry and are based on the researcher's subjective judgment.

A second assumption of the study relates to the researcher's interpretation of the responses to the inventory items. Each item included several service skills and was considered in the analysis of results as if all of the skills mentioned were responded to equally in terms of business people's service needs, psychologists' training proficiencies, or perceived usefulness of the services by either profession.

A final assumption relates to the respondent's interpretation of the context in which the items are meant to be considered when responding to the survey. Because the instructions give no indication of the context for response to the vignettes, the respondent must decide whether to respond according to the situation in which he is currently involved or as if the situation were representing an ideal situation. The results reported from this study assume that the response was to an ideal situation.

General Conclusions

This study was undertaken to provide guidance for planning a relevant program of vocational school psychology service goals. Conclusions were considered to be tentative in nature and as a basis for further investigation of appropriate vocational services in a business setting. Service needs were conveyed in terms of two components of service. One component was the subject or topic of concern. The topics selected for this study were physical limitations, behavioral limitations, environmental limitations, emotional limitations, and social limitations. The second component included the following service

skills identification, counseling, coordination, planning, and referrals

The research for the present study yielded information that identification skills, referral skills, and environmental limitation topics were areas for further investigation, inasmuch as they related to training programs for vocational school psychologists. Because the terms identification skills, referral skills, and environmental topics represent descriptors based on the researcher's subjective judgment, these global semantics will require an investigation of the scope of ideas represented by concept. Question content in the VSI represents samples of the researcher's inclination toward defining the descriptors. Within the scope of this study, identification skills are inclusive of test batteries, needs analyses, and program evaluations. Referral skills are interpreted to include surveys and assessments of the local organizational, community, regional, state, and national resources relevant to service demands and personal communication skills appropriate to efficient and pertinent use of this information. Environmental limitation topics are perceived as physical circumstances affecting an individual's life which become temporary barriers to productivity. These circumstances may include the need for a large space around a desk to accommodate a wheelchair, a loan when a natural disaster destroys a home, or time off when there is a power blackout in a section of the community. The topics and skills discussed above are areas indicated by psychologists on the VSI where further training was needed. Further investigation of the usefulness of emotional limitation and social limitation topics in the business setting also indicated areas for further study in relation to priorities of business people. Emotional limitation

topics are perceived as visible signs of poor mental health. This would include individuals who may burst into tears for periods of time or become very absent-minded for unexplained reasons contrary to past behavior patterns. These limitations would affect all aspects of an individual's life and would be a very comprehensive problem. The researcher separated this from the topic of behavior limitations which are perceived as problems identified by fellow workers and supervisors because they interfere with productivity. These problems may be comprehensive problems, poor work habits, or poor human relations skills. Social limitation topics are concerned with racial, age, and sexual barriers. The two topics discussed above are recommended for further study because both business people and psychologists indicated a low amount of use for addressing social limitation topics and because psychologists contrasted business people's opinions by indicating the usefulness of addressing emotional limitation topics.

This study is used most appropriately as a part of a decision-making process within a program planning context. This would allow for setting of goals, priorities, and performance levels to be established in training programs. The information obtained from this study was also descriptive research and provided a foundation for more stringent research studies of the service delivery fit between the vocational school psychologist's role and perceived needs of industry.

Recommendations

1. The results of this descriptive research are tentative, and service needs which were conceptualized for use as descriptors were

based on the researcher's subjective judgment. Because of these two reasons, the research is recommended for use as a part of an ongoing evaluation of needs in the workplace. As this instrument is further developed for use, it is recommended that the instructions include an explanation that the vignettes are intended to be conceived as ideal situations for item response. Another problem within the instrument which is recommended to be addressed is the manner in which the respondent is forced to agree with several services included in each item rather than each service which is cited within an item.

2. It is recommended that the portions of the Vocational Service Inventory (VSI) covering occupational services and career development services be researched further. This information will supplement the existent information which is a requisite to a comprehensive study of vocational services.

3. Administration of the Vocational Services Inventory in its entirety is recommended, because it will allow for a complete assessment of the service delivery fit between the role of the vocational school psychologist and industry's perceived needs. This information will also allow for a comparison of needs among the three domains of vocational service discussed in this research.

4. Further study is recommended using the VSI to determine usefulness of vocational services in different functional business settings (i.e., predominantly professional, managerial, skilled, or semiskilled).

5. The VSI is recommended for use in determining perceived need for vocational services in differing industrial settings (i.e., manufacturing, utilities, finance, construction, government, trade, personal

services, etc.).

6. It is recommended that results of the VSI assessment be organized as part of a graduate level vocational school psychologist training program evaluation. This assessment allows for development of procedural designs and strategies which address both topics and service skills investigated by the VSI in terms of perceived needs of the population to be serviced, which is business and industry.

7. Because programs in the business environment change relatively frequently, vocational school psychology training programs must be ready to recycle planning decisions. It is recommended that a system be developed which will enable the profession to maintain flexibility through provision for periodic needs assessments using the VSI.

8. To optimize graduate level training benefits, the VSI is recommended for use when planning retraining program requirements. Uses include development of needs analyses and strategies which address school psychology experiences and retraining program components which lead to proficiency as a vocational school psychologist.

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APPENDIXES

APPENDIX A
VOCATIONAL SERVICES INVENTORY
(CONTENT ANALYSIS)

List of Authors Referring to
Each Type of Service

Personnel Development Services

Bardon, 1972
Guidubaldi, 1982
Hannafin & Witt, 1982
Hohenshil & Warden, 1978
Kratochwill & Bergan, 1978
Krumboltz & Menefee, 1980
Maher & Illback, 1982
Norton & Gustafson, 1982
Osipow, 1982
Stagner, 1982
Super, 1980
Toomer, 1982
Vandergoot, 1982

Occupational Services

Bardon, 1972
Fairchild, 1982
Hannafin & Witt, 1982
Hohenshil & Warden, 1978
Kratochwill & Bergan, 1978
Maher & Illback, 1982
Norton & Gustafson, 1982
Osipow, 1982
Reagles, 1981
Scarpello & Campbell, 1983
Smith, Brown, & Kayser, 1982
Stagner, 1982
Super, 1980
Toomer, 1982
Vandergoot, 1982
Warden, Kinnison, & Accord, 1982
Watkins, 1983

Career Development Services

Bardon, 1972
Bauman & Kropf, 1979
Fagan & Hohenshil, 1976
Gysbers, 1984
Hohenshil & Warden, 1978
Miller & Schloss, 1982
Norton & Gustafson, 1982
Osipow, 1982
Reeder & Linkowski, 1976
Roessler, 1983
Stagner, 1982
Sullivan & Vernon, 1979
Worrall & Vandergoot, 1982

APPENDIX B

VOCATIONAL SERVICES INVENTORY

(CONTENT VALIDITY)

<u>Item</u>	<u>Programs and services available in business settings</u>
1.	Job descriptions, on-the-job training, job orientation
2	Job descriptions, on-the-job training, job orientation
3.	Procedures manual, safety/wellness program
4	Human Resource Department, counseling with supervisor/manager
5	Employee Assistance Program
6	Merit pay increases, job posting practices, Human Resource Division, function of employee recognition.
7	Human Resource Division, counseling function, and management counseling function
8	Job description, job training (customer service training), orientation.
9	Participation involving employee's program, department teamwork sessions
10	Company disability insurance program, employee assistance program, rehabilitation program
11	Reasonable accommodation through the handicapped program
12	Company Equal Employment Opportunity Administration
13	Handicapped/rehabilitation program, employee assistance program
14	Employee assistance program.
15	Human Relations Department services of job posting, and administration of interest and aptitude tests
16	Test validation in coordination with outside testing sources.

17. Participation involving employees, department team sessions to resolve differences, establish goals, expectations, and communication
18. Orientation, team sessions
- 19 Employee assistance program.
- 20 Participation involving employees, team sessions.
- 21 Employee assistance program.
- 22 Equal employment counseling
- 23 Employee assistance program
- 24 Educational assistance program.
- 25 Counseling by supervisor, counseling by human relations department
- 26 Employee survey
- 27 Job posting, skill and job interest test administration
- 28 Participation involving employee program
- 29 Training program, community workshop
30. Performance appraisal
- 31 Interview instrument (interviews used to indicate decision-making ability)
- 32 Career counseling program
- 33 Task force project of employment selection system
- 34 Department team sessions, employee assistance program
- 35 Job posting, skill/job interest assessment.
- 36 Company nurse
- 37 Employee and supervisor set goals and expectations.
- 38 Employee assistance program.

APPENDIX C

VOCATIONAL SERVICES INVENTORY

(PILOT STUDY)

16218 LaGloria
Houston, Texas 77083
August 26, 1985

Dear Colleague

The attached questionnaire is concerned with services provided by school psychologists in a vocationally-oriented setting. I am asking you to be of assistance in the research project for my dissertation. Your help will be very important for developing a useful instrument.

Please, just respond to the questions as they apply to you, even though they might not fit your present circumstances very well.

I will appreciate your completing this questionnaire as soon as possible and returning it in the stamped envelope enclosed. I will be happy to help you in any way I can in return for this favor and will send you information regarding this research if you desire.

Thank you for your help once again.

Sincerely,

Kay O'Rourke

Instructions for Form A (psychologists)

In the vignettes below, please circle the number which indicates how strongly you feel that your educational training has provided you with the skills to coordinate or provide the described services. Please use the following scale:

- 6 = skills definitely trained
- 1 = skills definitely not trained

Instructions for Form B (businesses)

In the vignettes described below, please mark how strongly you feel that the described vocational services should be provided for employees. The terms "worker" and "supervisor" are used to make situations applicable to either a training or a job site setting. Please use the following scale:

- 6 = services definitely needed
- 1 = services definitely not needed

- | | | | | | | | |
|----|--|---|---|---|---|---|---|
| 1 | One of the tasks of a newly hired clerk is scheduling. A written list of expected performance criteria is provided for the clerk regarding that task. | 6 | 5 | 4 | 3 | 2 | 1 |
| 2 | A draftsman has been hired by your firm. An entry level evaluation of the ability to perform a list of tasks is coordinated. For example, the task of blueprint reading includes reading the architect's scale, reading electrical symbols, etc. | 6 | 5 | 4 | 3 | 2 | 1 |
| 3 | Your company is converting to using computerized business forms. A training program is coordinated on use of the forms which includes safety, accurate use, and computer capabilities. | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. | A worker who has had a nervous breakdown is returning to work from leave. Educational conferences for supervisors and possibly co-workers are coordinated if desired by the individual. | 6 | 5 | 4 | 3 | 2 | 1 |
| 5 | A supervisor reports a worker who has an alcohol problem and is frequently absent from work. Short-term counseling and referral services to community agencies dealing with alcohol abuse are coordinated. | 6 | 5 | 4 | 3 | 2 | 1 |
| 6. | Your company wants to motivate workers. A program is coordinated which is designed to reward workers demonstrating job-related competency skills. Worker of the month recognition plaques are given. | 6 | 5 | 4 | 3 | 2 | 1 |
| 7. | An individual who is severely hearing-impaired has been hired as a computer operator. Career assessment, career plans, and conferences with co-workers regarding communication skills are provided. | 6 | 5 | 4 | 3 | 2 | 1 |

- | | | | | | | | |
|----|---|---|---|---|---|---|---|
| 8. | An account clerk is placed on the job in your firm. A written list of performance expectations is provided. The job requires working with customers to fill out applications, checking references, notifying customers of credit acceptance, etc. | 6 | 5 | 4 | 3 | 2 | 1 |
| 9. | Your organization wants to address the need for job satisfaction. A program is planned that allows workers to become more aware of their values and of how their current work is making it possible to achieve these values. | 6 | 5 | 4 | 3 | 2 | 1 |
| 10 | A worker loses both legs in an accident. A plan is written which includes mobility skills, adaptive equipment, counseling, and an interagency cooperative plan. | 6 | 5 | 4 | 3 | 2 | 1 |
| 11 | A worker is in a wheelchair from time to time because of inflamed joints caused by arthritis. The writing of goals for an individualized vocational plan is coordinated. | 6 | 5 | 4 | 3 | 2 | 1 |
| 12 | A Mexican female auto body worker has filed discrimination charges within the organization against her supervisor. A communications conference with her supervisor, co-workers, or other appropriate individuals is provided. | 6 | 5 | 4 | 3 | 2 | 1 |
| 13 | A worker has diabetes and is told (s)he will be gradually losing eyesight. Counseling and referral services are coordinated as desired by the individual. | 6 | 5 | 4 | 3 | 2 | 1 |
| 14 | Your organization wants a program designed to alleviate stress of a temporary situation, such as a natural disaster. A program is coordinated that has, for example, a loan program and approved time off for victims of a flood. | 6 | 5 | 4 | 3 | 2 | 1 |

15. Your company wants to improve employee production. A secretary is very unhappy with his/her career and wants to change but doesn't know what (s)he wants to do. An assessment battery is administered and consultation is provided regarding interests, achievements, and skills
- 6 5 4 3 2 1
16. Your company uses written tests to help select employees. An evaluation of the tests and the testing procedure is conducted to determine if governmental guidelines concerning test bias are met
- 6 5 4 3 2 1
17. Your company wants to improve co-worker relationships. A program is coordinated which encourages individuals to consider their reasoning and decision-making skills related to group cooperative efforts
- 6 5 4 3 2 1
18. Your company wants to involve workers in the organization. A program is designed to improve worker understanding of organizational goals. An example of this type of program would involve supervisors explaining to workers what is expected, how performance is measured, and how expectations and performance match
- 6 5 4 3 2 1
19. Your company wants to increase quality of service to customers. A program is planned that will use a team building approach requiring workers with duties in common areas to meet and discuss ways they work together successfully and ways each member can improve cooperative efforts
- 6 5 4 3 2 1
20. Your company wants to improve employee retention. A program is planned which will focus on meeting employees' personal needs of self-esteem. An example of this service would be a workshop for workers on opening communication channels.
- 6 5 4 3 2 1

- | | | | | | | |
|--|---|---|---|---|---|---|
| 21 A trainee who is having financial problems reports having difficulty concentrating on work. Short-term counseling and referral to community agencies dealing with budget planning are provided | 6 | 5 | 4 | 3 | 2 | 1 |
| 22 A female worker is being placed on a job with all male co-workers. A conference is coordinated for co-workers and supervisors where problems are discussed and solutions are presented to male-female stereotyping problems | 6 | 5 | 4 | 3 | 2 | 1 |
| 23. An individual who has been on welfare for 5 years has been hired as a bookkeeper. Counseling and community referrals for budgeting, child care, and coping skills are planned, if desired by the employee | 6 | 5 | 4 | 3 | 2 | 1 |
| 24 Your company wants to increase performance efficiency A program is coordinated and designed to improve basic math, reading, and communication skills An example of goals of this program will be reduction of mistakes and time spent because of inability to understand job duties | 6 | 5 | 4 | 3 | 2 | 1 |
| 25 A recently trained welder is placed on the job following a year of incarceration Counseling and contacts with community resources, such as career and family counseling, are provided, if desired by the individual | 6 | 5 | 4 | 3 | 2 | 1 |
| 26 Your company has a program for improving worker morale An evaluation of the program is coordinated by administering a survey at the beginning of the program once a month during a workshop series and at the end of the program | 6 | 5 | 4 | 3 | 2 | 1 |

- 27 Your company wants to motivate workers. A program is planned which is designed to improve attitudes toward work. An example of this type of program includes a career inventory which will enable a worker to match his/her background and abilities with choices within an occupational interest area hierarchy. 6 5 4 3 2 1
28. Your company wants to improve employee productivity. Supervisor consultation is provided concerning a worker who has developed a problem with finishing tasks. After consultation with proper people in the organizational structure, a plan is developed which includes a battery of aptitude tests and a goal-setting workshop. 6 5 4 3 2 1
- 29 Your company wants to increase performance efficiency. A program is coordinated and designed to improve reported worker behavior problems. For example, this program may consist of an analysis of specific worker behavioral deficits and the planning of experiences which will help workers learn appropriate responses or social skills. 6 5 4 3 2 1
- 30 Your organization wants to increase communication. A program is coordinated that involves construction of a survey by the supervisor and worker to identify areas of poor performance and areas of good performance. 6 5 4 3 2 1
- 31 Your company wants to improve retention rates. A program is planned which will make workers aware of components of career satisfaction. For example, a program may consist of administration of a test to workers concerning decision-making abilities and result in making a comparison of these abilities to personal career satisfaction. 6 5 4 3 2 1

- 32 Your company wants to improve employee retention. A program is coordinated and designed to inform workers of how to grow and advance within an organization. For example, a career planning conference is held in which the worker defines career goals and evaluates directions life has taken for him/her. 6 5 4 3 2 1
33. Your company has a program for assessing eligibility for management training. Selection of an evaluation system is coordinated that will assist in the recommendation of workers to be selected to receive training for management positions 6 5 4 3 2 1
- 34 Your company wants to motivate workers A program is planned which will improve attitudes toward work and the supervisor. An example of this type of program would include evaluation and conferences which enable the worker to look at a pattern of past behavior, what this behavior may mean in terms of future behavior, and choices that may need to be made 6 5 4 3 2 1
- 35 Your company wants to improve employee productivity Supervisor consultation is provided for a worker who is having trouble keeping up with the workload and quarreling with fellow workers After consultation with proper people in the organizational structure, a plan is devised which may include administration of an ability and interest assessment. Further consultation may result in moving this person to another area of work within the same occupational cluster 6 5 4 3 2 1

36. A supervisor refers a worker for consultation who is having frequent problems keeping up with the workload. An interview is conducted to reveal any medical problems or any prescription drugs presently needing attention or adjustment
- 6 5 4 3 2 1
37. Your company wants to increase performance efficiency. A program is coordinated and designed to speed up department production. For example, this program may consist of an evaluation of work skills which will examine time spent on task and quality of product.
- 6 5 4 3 2 1
38. Your company wants to improve employee productivity. Supervisor consultation is provided concerning a worker who is suspected of taking drugs and is having an attendance problem. After consultation with proper people in the organizational structure, a plan is developed which includes a goal-setting workshop and referral to a community agency dealing with drug abuse
- 6 5 4 3 2 1

APPENDIX D

VOCATIONAL SERVICES INVENTORY

(PERSONAL DEVELOPMENT

SECTION)

(Cover Letter for Form A)

16218 LaGloria Drive
Houston, Texas 77083
March 5, 1986

Dear Colleague

As an enthusiastic subscriber to the vocational school psychology professional speciality area, I would like to exchange some information with you. I am enclosing a list of individuals who have been recommended by their colleagues to be included as vocational school psychologists. I am requesting, in exchange, your response to the enclosed Vocational Services Inventory. The inventory is a portion of my doctoral dissertation which is being completed at Oklahoma State University.

This inventory will require approximately 10 minutes and reflects professional skill training relating to vocational services. Experience in placement of many individuals on the job has prompted me to explore an individual's work life from the viewpoint of the employer (supervisor), as well as the employee.

I will appreciate your prompt completion and return of this Inventory by March 15, 1986. Please make a note of any corrections or additions to the list of vocational school psychologists if you wish. The number at the top of the Inventory will be discarded as soon as it is checked off the mailing list to assure anonymity.

Thank you again for your response which reflects your unique training background in school psychology.

Sincerely,

Marilyn Kay O'Rourke, M S

Paul G. Warden, Ph D
Coordinator
School Psychology Program

(Cover Letter for Form B)

16218 LaGloria Drive
Houston, Texas 77083
March 5, 1986

Dear Business Leader

Your name has been submitted to me by a mutual friend, and I would like to ask a favor. Although I live in Houston, I am in the process of earning a doctoral degree from Oklahoma State University in the area of vocational school psychology. I have enclosed an Inventory and would appreciate very much your taking only 10 minutes to fill it out to the best of your ability.

You have been contacted because your supervisory position gives you first-hand knowledge of employment situations. This knowledge will be used to benefit individuals involved in training and other employment support positions. The Inventory (which takes approximately 10 minutes) deals with economical methods of maintaining an employee by meeting his or her unique personal needs.

Thank you for your response and for returning the Inventory in the enclosed stamped envelope by March 15. I would be happy to share results and further information regarding this Inventory if you wish.

Sincerely,

Marilyn Kay O'Rourke, M.S

Instructions for Form A (psychologists)

In the vignettes below, please circle the number which indicates how strongly you feel that your educational training has provided you with the skills to coordinate or provide the described services. Please use the following scale:

- 6 = skills definitely trained
- 1 = skills definitely not trained

Instructions for Form B (businesses)

In the vignettes described below, please mark how strongly you feel that the described vocational services should be provided for employees. The terms "worker" and "supervisor" are used to make situations applicable to either a training or a job site setting. Please use the following scale:

- 6 = services definitely needed
- 1 = services definitely not needed

1 A worker who has had a nervous breakdown is returning to work from leave. Educational conferences for supervisors and possibly co-workers are coordinated if desired by the individual	6	5	4	3	2	1
2 A supervisor reports a worker who has an alcohol problem and is frequently absent from work. Short-term counseling and referral services to community agencies dealing with alcohol abuse are coordinated	6	5	4	3	2	1
3 A worker loses both legs in an accident. A plan is written which includes mobility skills, adaptive equipment, counseling, and an interagency cooperative plan.	6	5	4	3	2	1
4 A worker is in a wheelchair from time to time because of inflamed joints caused by arthritis. The writing of goals for an individualised vocational plan is coordinated	6	5	4	3	2	1
5. A worker has diabetes and is told (s)he will be gradually losing eyesight. Counseling and referral services are coordinated as desired by the individual	6	5	4	3	2	1
6. Your organization wants a program designed to alleviate stress of a temporary situation, such as a natural disaster. A program is coordinated that has, for example, a loan program and approved time off for victims of a flood	6	5	4	3	2	1
7 Your company wants to improve co-worker relationships. A program is coordinated which encourages individuals to consider their reasoning and decision-making skills related to group cooperative efforts	6	5	4	3	2	1

- | | | | | | | |
|--|---|---|---|---|---|---|
| 8. A trainee who is having financial problems reports having difficulty concentrating on work. Short-term counseling and referrals to community agencies dealing with budget planning are provided. | 6 | 5 | 4 | 3 | 2 | 1 |
| 9. A female worker is being placed on a job with all male co-workers. A conference is coordinated for co-workers and supervisors where problems are discussed and solutions are presented to male-female stereotyping problems. | 6 | 5 | 4 | 3 | 2 | 1 |
| 10. An individual who has been on welfare for 5 years has been hired as a bookkeeper. Counseling and community referrals for budgeting, child care, and coping skills are planned, if desired by the employee. | 6 | 5 | 4 | 3 | 2 | 1 |
| 11. A supervisor refers a worker for consultation who is having frequent problems keeping up with the workload. An interview is conducted to reveal any medical problems or any prescription drugs presently needing attention or adjustment. | 6 | 5 | 4 | 3 | 2 | 1 |
| 12. Your company wants to improve employee productivity. Supervisor consultation is provided concerning a worker who is suspected of taking drugs and is having an attendance problem. After consultation with proper people in the organizational structure, a plan is developed which includes a goal-setting workshop and referral to a community agency dealing with drug abuse. | 6 | 5 | 4 | 3 | 2 | 1 |

- 13 List the top five items on the inventory that you believe are the most relevant and useful items relating to the vocational services described above.

- 14 List any service areas you believe should be provided that you did not find on the inventory

Demographic Information

Form A (psychologists)

What is your current role in psychological services?

- Training
- Practitioner
- Other

How many years have you been involved in psychological services (include years as practitioner and trainer)? _____

Form B (businesses)

How long have you held a supervisory position? _____

APPENDIX E

ADDITIONAL ANALYSIS OF VOCATIONAL SERVICES
INVENTORY (PERSONAL DEVELOPMENT
SERVICES)

TABLE XI
ITEM ANALYSIS FOR BUSINESS GROUP

Item	M	SD	r
1	3.38	1.4	.50
2	5.21	1.2	.40
3	4.51	1.6	.43
4	3.48	1.8	.50
5	4.49	1.3	.50
6	4.35	1.4	.33
7	4.51	1.4	.10
8	3.05	1.5	.52
9	2.89	1.4	.47
10	3.51	1.5	.12
11	3.86	1.4	.31
12	4.62	1.5	.49

Subtest reliability coefficient = .75

TABLE XI (Continued)

Item	M	SD	r
1	3.83	1.5	.80
2	4.08	1.4	.71
3	3.57	1.6	.62
4	3.87	1.6	.67
5	3.93	1.6	.76
6	2.80	1.7	.68
7	4.29	1.4	.67
8	3.74	1.5	.69
9	3.76	1.5	.83
10	3.57	1.5	.12
11	3.57	1.6	.31
12	2.65	1.6	.49

Reliability coefficient = .94

TABLE XI (Continued)

	n
<u>Business population suggestions</u>	
Marital counseling	2
Counseling for employees who lose children through death, divorce, or runaway	1
Job dissatisfaction	1
Goal planning	1
Goal setting	1
Motivation	1
Information leading to informing employees of total organizational goals	1
Supervisor training for detection of drug, alcohol, and stress problems	1
<u>Vocational school psychologist population suggestions</u>	
Independent living skills	1
Human sexuality	1
Family counseling	1
Inhouse treatment programs	1
Onsite crisis intervention	1
Program for fusing handicapped people into the organization	1
Occupational social skill training for learning disability and educatably mentally handicapped students	1
Educational assistance in mainstreaming	1

TABLE XI (Continued)

	n
Identification of skill areas for skill training of secondary handicapped people	1
Vocational assessment	1
Treatment of work-related behaviors	1
Long-range career planning	1
Career development assessment	1
Career decision-making for employees	1
Career awareness at secondary level	1
Career exploration	1
Career counseling	1
Change of career assistance	1
Counseling displaced workers	1
Ongoing referral service system	1
Services to handicapped adults	1
Headhunting	1
Vocational potential evaluation	1
Measurement	1
Transition adaptation for adult learning disability and educatably mentally handicapped individuals	1
Psychological/vocational assessment	2
Interrelationships between schools and postsecondary services	1
Transition from secondary school to postsecondary training/education/work	1

VITA

Marylyn Kay Bocox O'Rourke

Candidate for the Degree of

Doctor of Philosophy

Thesis SERVICE DELIVERY FIT BETWEEN THE VOCATIONAL SCHOOL
PSYCHOLOGIST'S TRAINING AND PERCEIVED NEEDS OF INDUSTRY

Major Field Applied Behavioral Studies

Biographical

Personal Data Born in Perry, Oklahoma, August 28, 1942, the daughter of George and Mary Kirtley Bocox Married to Robert L. O'Rourke, Mother of Roger Paul and Rachel Adrienne Hula

Education Graduated from Medford High School, Medford, Oklahoma, 1960, received Bachelor of Science degree from Oklahoma State University in July 1971, received Master of Science degree from Oklahoma State University in July, 1974, completed the requirements for the Doctor of Philosophy degree at Oklahoma State University in December, 1986

Professional Experience Teacher of Special Education, Educable Mentally Handicapped, Ponca City Public Schools, 1971-1973, Graduate Assistant, Oklahoma State University, 1973-1974, Teacher Consultant, Cushing Public Schools, Regional Education Service Center, 1974-1976, Director of Child Find Project, Cushing Public Schools, Regional Education Service Center, 1976-1977, Psychometrist, Tulsa County Area Vocational-Technical School, 1977-1978, Instructor/Psychometrist of Residential and Institutional Services Vocational Classroom, Tulsa County Area Vocational-Technical Schools, Tulsa, Oklahoma, 1978-1985, Management Consultant for Birkmar and Associates, Incorporated, Houston, Texas, 1986-Present