PERSONAL ATTRIBUTES AND JOB

COMPETENCIES IMPORTANT

FOR JOB SUCCESS OF EFNEP

PARAPROFESSIONALS:

A DELPHI STUDY

By

BETTY ANN NAMAROME WAKOU

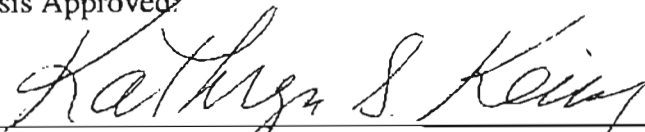Bachelor of Education

Makerere University
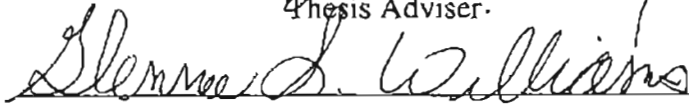
Kampala, Uganda

1992

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
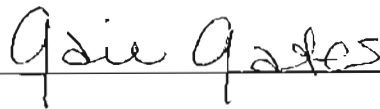December, 1998

PERSONAL ATTRIBUTES AND JOB

COMPETENCIES IMPORTANT

FOR JOB SUCCESS OF EFNEP
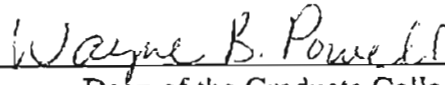
PARAPROFESSIONALS:

A DELPHI STUDY

Thesis Approved:

_____

Thesis Adviser.

_____

_____

_____

Dean of the Graduate College

ii

ACKNOWLEDGEMENTS

Special gratitude is extended to my late father, my sisters, and brothers for love, encouragement, and great support that inspired me throughout my education.

Last but not least, I would like to thank my husband Nicholas for his love, support, and understanding. He sacrificed time and energy to make possible this study. Very special thanks to Dora and Jonah my children, who took on extra responsibility to enable me to complete this study and lastly, little Eleanor Elizabeth for her 'timely' addition to the family. Her very being inspired me and gave me the faith that with God's grace, every thing is possible.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

The Expanded Food and Nutrition Education Program (EFNEP) of the United States Department of Agriculture, Cooperative State Research, Education, and Extension Service (CSREES) was congressionally authorized in November 1968. The goal of EFNEP is to help low-income families with children to acquire the knowledge and attitudes necessary to improve their diets and nutritional practices (U.S. Department of Agriculture, Expanded Food and Nutrition Education Program, 1983). The EFNEP uses the model of trained paraprofessionals to teach EFNEP participants the skills and knowledge needed to improve the participants' nutritional status and that of their families. The paraprofessionals hired are indigenous to the community, working on a one-to-one basis or in small groups (U.S. Department of Agriculture, EFNEP, 1983).

Paraprofessionals are important to the success of the EFNEP in reaching low-income audiences. A review (Olson, 1994) of the literature pertaining to paraprofessional education revealed there was a need for more studies concerning the personal attributes and job competencies required of paraprofessional to be successful on the job. The author of the review found few studies concerning the personal attributes and job competencies necessary to consider when hiring paraprofessionals or the attributes and competencies the paraprofessional should have before working with participants that

1

enable the paraprofessional to be successful on the job. This is important considering that the nature of EFNEP participants changed between 1969 and today as reported by Chipman and Kendall (1989). Paraprofessionals require certain skills to competently perform their duties as nutrition educators. The ability of professionals to provide adequate training for these paraprofessionals is important in order for paraprofessionals to competently perform their duties. Knowing what job competencies professionals perceive as important for job success would assist in shaping training sessions.

Therefore the limited number of studies concerning the attributes and competencies that make the paraprofessional successful indicate the need for further research in determining the paraprofessional attributes and competencies. The development of a training model for paraprofessionals in EFNEP would help prepare competent paraprofessionals. The determination of the personal attributes and job competencies necessary for job success of a paraprofessional will be useful for the EFNEP professionals in hiring, training, and evaluation of paraprofessionals. It is also important to determine the nutrition content and topics presented during initial training of paraprofessionals in different states and territories, and the initial hours of training they undergo. Knowledge of the topics provided for the initial training can give an insight into the content that is commonly taught indicating the areas that need to be emphasized. The length of time spent conducting the initial training can give insight into the competencies that a newly hired paraprofessional is expected to acquire. The competencies that can be acquired would allow the initial time for training to be adjusted accordingly, to meet the beginning qualities that a new paraprofessional needs.

Problem Statement

The EFNEP employed approximately 2, 619 paraprofessionals in FY97 to deliver nutrition education content in all states and territories (S. Montgomery, personal communication, 07/21/98). The personal attributes and job competencies that ensure a successful paraprofessional have not been determined using systematic methodology. The literature used for this study revealed few studies determining the personal attributes and job competencies necessary to consider when hiring, training or evaluating job performance of paraprofessionals. The important role EFNEP paraprofessionals play therefore requires the determination of the characteristics that professionals feel would result in success on the job. Hiring, training, and job performance evaluation practices based on characteristics that may result in better job performance will help bring about quality nutrition education programs. According to Gorton (1982) in-service training can help, but selection based on initial characteristics is more useful in bringing about quality nutrition education programs. In addition, knowledge of how different states perform their initial training and the topics they teach would be helpful to professionals in determining the appropriate curricula for the training of the paraprofessionals. This study is needed to determine the paraprofessional's personal attributes and job competencies important in hiring decisions, initial training, and evaluation of job performance.

Purpose of the Study

The purpose of this study was to determine the personal attributes and job competencies required of EFNEP paraprofessionals to be successful on the job as perceived by EFNEP professionals. The determination of the attributes and competencies perceived important by professionals would assist professionals in hiring, planning training sessions, and evaluating paraprofessionals' job performance. This list of attributes and competencies could save costs and time in hiring, training, and evaluating paraprofessionals.

Objectives of the Study

The objectives of the study were:

1. To determine the content currently provided to EFNEP paraprofessional at initial training programs and length of time for the initial training.

2. To determine personal attributes and job competencies that are necessary for the job success of EFNEP paraprofessionals as perceived by EFNEP professionals.

3. To rank the personal attributes and job competencies needed by paraprofessionals to be successful on the job as perceived by the EFNEP professionals.

4. To categorize the job competencies desired of EFNEP paraprofessionals by EFNEP professionals.

Assumptions

This study was conducted based on the following underlying assumptions.

1. The respondents surveyed were currently working for EFNEP.

2. The individuals who participated in the study were honest when responding to the questionnaire.

3. The individuals understood the statements in the survey.

Limitations

The limitations of this study included the following:

1. The study was dependent upon the cooperation of the professionals.

2. The professionals recruited the area and county extension staff.

3. A state level professional who did not volunteer to participate denied access to county extension professionals.

4. The sample cannot be expanded to the United States as a whole since this was not a randomly selected sample of EFNEP professionals.

Definition of Terms

1. Competence: Sufficient means for one's needs; the ability to do well something worthwhile; the knowledge, skills, values and attitudes needed to carry out properly an activity important to success in one's personal or professional life; the ability to

meet or surpass prevailing standards of adequacy for a particular activity (Butler, 1978; Webster's Third New International Dictionary of the English Language, 1986).

2. Cooperative Extension System: A national educational network pledged to meeting the country's needs for research, knowledge, and educational programs that enable people to make practical decisions. Includes partners at the federal, state, land-grant university, and county levels.

3. CSREES: Cooperative State Research, Education, and Extension Service.

4. EFNEP: Expanded Food and Nutrition Education Program whose mission is to improve the nutrition and quality of life of children whose families have little or no income (Family Nutrition Programs, http://gamstcweb.gisd.k12.mi.us/msue/efnep/efnep.html).

5. EFNEP participant: The individual who is involved or enrolled in the EFNEP program; the person with whom the paraprofessional works (Leidenfrost, 1986).

6. EFNEP paraprofessional: A paid staff member who receives direction from EFNEP professionals and is employed to assist or extend their efforts through direct contact with participants in the conduct of EFNEP educational programs (Leidenfrost, 1986).

7. EFNEP professional or extension educator: A person employed by the Cooperative Extension Service and has a professional appointment with the state land-grant university and is responsible for conducting EFNEP programs and supervising EFNEP paraprofessionals (Leidenfrost, 1986).

8. Indigenous: Describes the personnel with socioeconomic and cultural characteristics similar to the client population, including living in the same neighborhood (Bremner, Campbell, and Sobal, 1994).

9. Job competencies: Those standards that relate to knowledge and skills necessary for a paraprofessional to have before being hired and after completing an orientation in training and before working with EFNEP participants (Webster's Third New International Dictionary of the English Language, 1986).

10. Job success: The ability to recruit, maintain and bring about improved and lasting changes in the dietary practices of participants (Iscan and Nelson, 1977).

11. Large group instruction: A method of instruction with the low-income audience outside the home consisting of 11 or more participants (Leidenfrost, 1986).

12. Limited-resource audience: Applies to an individual or family living below poverty income guidelines (limited income) and/or having less than a high school diploma and has low literacy skills (limited education), struggling to maintain supportive environments. Inadequate nutrition, healthcare, housing and childcare, and transportation are problems encountered (Allen, et al., 1991)

13. Low-income participant: Marginal families existing on very little money and with very poor living conditions (Leidenfrost, 1986).

14. One-to-one teaching: A method of instruction where a paraprofessional teaches a single participant. The focus of attention is on the learner's individual needs. One-to-one instruction takes place when the environment and socioeconomic isolation of the participant cannot meet the small group instruction (Leidenfrost, 1986).

15. Personal attributes: Those standards used to measure values, beliefs, attitudes, interests, or behaviors an EFNEP paraprofessional already has before being hired (Webster's Third New International Dictionary of the English Language, 1986).

16. Skill: The ability to carry out a purposeful activity with a facility or the proficient

application of knowledge and process a task (Webster's Third New International Dictionary of the English Language, 1986).

17. Small group instruction: An informal method of instruction of five to ten participants (most often held outside a home) with a planned teaching objective (Leidenfrost, 1986).

18. State EFNEP coordinator: An individual who provides the major management or program leadership for the state EFNEP program, within the EFNEP policies (USDA Extension Service, EFNEP, 1986).

CHAPTER II

REVIEW OF LITERATURE

The review of literature includes an overview of Expanded Food and Nutrition

Education Program (EFNEP), EFNEP effectiveness, education methods used in the

EFNEP, characteristics of the EFNEP paraprofessionals, training of the EFNEP

paraprofessionals, and the Delphi technique.

Expanded Food and Nutrition Education Program

Background and Goals of EFNEP

The EFNEP is organized nationally through the Cooperative State Research,

Education, and Extension Service (CSREES) of the United States Department of

Agriculture (USDA). The EFNEP was initiated in 1968 as a result of congressional

action to educate low-income consumers about dietary adequacy (Bradish, 1980; Wang

and Ephross, 1971). Special funds ($10 million) were allocated for the hiring and

training of paraprofessionals to improve the diets of low-income families (Spindler,

Jacobson, and Russell, 1969). The program was started as a result of poverty in the

United States that impacted the physical and mental development of the poor and the

social and economic health of the nation (Bradish, 1980). EFNEP has directly affected

over 19 million adults and 4-H EFNEP youth since its inception by 1968 (USDA,

Expanded Food and Nutrition Education Program, 1994).

The goal of CSREES is to achieve a healthier and a more well nourished population

through the objectives of optimizing the health of consumers by improving the quality of

diets, the quality of food, and the number of food choices. The performance goals are (a)

to provide good nutritional practices based on research, (b) to provide effective nutrition

education to disadvantaged populations, (c) to provide information on diet and health as it

relates to food behaviors and cultural differences, and (d) to provide increased nutrition

assistance and education programs and information regarding the role of nutrients in

health (USDA, Annual performance goals, CSREES,

http://www2.hqnet.usda.gov/ocfo.annlplan/csrees.html.1999).

The EFNEP defines its overall objectives in terms of behavioral change (Leidenfrost,

1986). The EFNEP objectives are to assist low-income families and youth to acquire the

knowledge, skills, and attitudes, and adopt behaviors necessary for nutritionally sound

diets and to contribute to the personal development and improvement of the entire

family's diet and nutritional well being (P. L. 97-98, Section 1423 [c]; USDA, Extension

Service, EFNEP policies, 1983). The participant objectives are to (a) improve diets and

nutritional welfare for the total family, (b) increase knowledge of the essentials of human

nutrition, (c) increase ability to select and buy food that satisfies nutritional needs, (d)

improve practices in food production, storage, safety, and sanitation, (e) increase ability

to manage resources that relate to food, including federal assistance programs, such as

Food Stamps (USDA, Extension Service, EFNEP, 1983), and (f) increase skill in

preparing and serving palatable meals (Leidenfrost, 1986).

Effectiveness of the EFNEP via Measuring Changes in Participants

One of the reasons for the success of the EFNEP with its participants is attributed to the methods EFNEP employs to build on the positive aspects of participants' current diets to develop skills for achieving nutritious diets within their available resources (Kennedy, Hunt, and Hodgson, 1998). The effectiveness of the EFNEP was evaluated based on the dietary changes made by the EFNEP participants. The evaluation process currently uses the 24-hour food recall and food behavior checklist (Appendix A), observations, and records of the participants (Chipman and Kendall, 1989). Chipman and Kendall (1989) stated that the indicators of EFNEP's effectiveness were program completion of participants, curriculum or subject mastery, and improvement in food-behavior practices (Tredici, Block, Omelich, and Laughlin, 1988) and dietary intake by the participants. Below is a discussion of the different indicators.

Program completion is a major indicator of program success, while drop out was considered failure when participants had no mastery of the subject matter (Chipman and Kendall, 1989). This however, depends on the extent to which the participants understand the subject at completion. In this respect, EFNEP data FY97 showed that out of 204,049 adults in the program, 62% graduated, 29% completed 1 to 6 lessons, 52% completed 7 to 12 lessons, and 12% completed 13 to 28 lessons (Table 1) (S. Montgomery, personal communication, 07/21/1998). Of the 50 New York City program participants, 60% graduated after 6 lessons, 38% after 12 lessons, and 2% after

Table 1. Adults graduated in EFNEP in FY97 (S. Montgomery, personal communication, 07/21/1998)

Adult characteristics	Percent of total EFNEP adults (n=204,049)
% Female	93%
% Male	7%
% Graduated	62%
% Graduated, competed 1-6 lessons	29%
% Graduates, competed 7-12 lessons	52%
% Graduates, competed 13-18 lessons	12%

18 lessons (Brink and Sobal, 1994).

Curriculum and teaching methods influence learning and were found to positively influence nutrition knowledge and dietary practices of EFNEP participants. The Cost Cutter Lesson Series consisting of 20 lessons focused on nutrition information, menu planning, food handling, food preparation, and food shopping to positively influence the participants' nutrition knowledge, dietary intake, and food related practices. A 20 week long program covered the EFNEP 2-2-4-4 serving pattern of milk, meat, fruit/vegetables, and bread/cereal groups during instruction of one lesson a week for 45 to 65 minutes (Romero, Medeiros, and Melcher, 1988).

Another study utilized 18 lessons based on 12 topics in the EFNEP curriculum to teach Food Stamp and non-Food Stamp participants (483 subjects) (Lopez and Berce, 1989). Their post-test scores on dietary patterns increased after participating in the EFNEP (Lopez and Berce, 1989).

Food behavior practices of participants were reported to improve significantly between entry and graduation (Romero, Medeiros, and Melcher, 1988; Brink and Sobal, 1994) with further improvements occurring 9 to 16 months later (Brink and Sobal, 1994). Significant improvements occurred in food selection and food shopping behaviors and 12 other items from a 24-item-food behavior checklist administered to 57 participants (Romero, Medeiros, and Melcher, 1988). In another study, improvements were observed in 10 out of 12 behaviors (preparation of food from scratch, removal/reduction of fat, disposal of garbage, comparing prices, use of grocery list, eats in the morning, plans ahead, refrigeration, not thawing at room temperature, not running out of food) (Brink and Sobal, 1994). The 10 practices were sustained one year later along with significant improvements at follow up in the use of garbage containers and use of grocery lists (Brink and Sobal, 1994). Wang and Ephross (1971) reported substantial upgrading of nutritional practices, food buying and use of Food Stamp programs for participants and their families through nutrition education by the paraprofessionals.

The 24-hour food recall used as the basis of diet analysis in the EFNEP revealed significant improvements among participants between entry and graduation from the program. Participants' fat intake reduced with slight improvement in average nutrient intakes of protein, calcium, and vitamin A above the Recommended Dietary Allowances (RDAs) (Brink and Sobal, 1994). These changes were retained and further improvements were observed 16 months after graduation from the EFNEP (Brink and Sobal, 1994). Wang, Ephross, and Green (1975) reported major gains in nutritional adequacy in the diets of the participants and their families during the first and second year after they were taught by paraprofessionals. Amstutz and Dixon (1986) reported improvement in dietary

13

practices and retention of 75% of these practices 20 months after graduation among the EFNEP participants in Maryland. The EFNEP lesson series using newly trained paraprofessionals showed significant improvements in the participants' reported dietary practices (Romero, Medeiros, and Melcher, 1988).

Nutrition knowledge was reported to increase for food groups and nutrients (Romero, Medeiros, and Melcher, 1988; Brink and Sobal, 1994). The nutrition knowledge was retained and improved further, 16 months after the participants graduated from EFNEP (Brink and Sobal, 1994). Romero, Medeiros, and Melcher (1988) found significant improvements in the nutrition knowledge of participants after a series of lessons delivered by newly trained paraprofessionals. Other non-nutrition benefits reported as a result of participation in the EFNEP were increased opportunities for employment (34%), improved education (31%), more participation in community service (35%), and better health (92%) (Brink and Sobal, 1994).

According to EFNEP FY97 data, out of 204,049 program participants, 95% showed a positive change in all food groups at their graduation, 84% improved in one or more food resource management practices, 89% improved in one or more nutrition practices, and 67% improved in one or more food safety practices (S. Montgomery, personal communication, 07/21/1998). In the United Kingdom, a program modeled after the EFNEP was found to be successful with low-income participants in the areas of nutrition education and dietary change (Kennedy, Hunt, and Hodgson, 1998).

Description of EFNEP Participants

The EFNEP target audiences are low-income, hard-to-reach adults and youth living in rural, suburban (Knapp, 1991) or urban areas (Leidefrost, 1986). Emphasis is on families with young children and the adults who are responsible for planning and preparing the family's food (USDA, Extension Service, EFNEP, 1983; Tredici, Block, Omelich, and Laughlin, 1988). A review of EFNEP changes between 1969 and 1979 (Chipman and Kendall, 1989), showed that EFNEP participants were from a poor background, were of minority/ethnic groups, did not speak English, had limited, inadequate or no education (Nitzke and Voichick, 1992), and were culturally, socially and geographically isolated (Knapp, 1991).

Between 1986 and 1987, the participants were of minority/ethnic backgrounds and had very low annual incomes between $3,780 and $11,000, as reported by Chipman and Kendall (1989). EFNEP participants were designated in the late 1980s as the "new poor" who were less isolated, more sophisticated, more affluent, more self motivated, better educated, Caucasian, and having a small family (Chipman and Kendall, 1989). This difference with the earlier participants indicated the need to adapt the EFNEP program to meet the changes in the population.

According to the EFNEP, FY92 data, 211,256 families and 455,931 youth were reached. Fifty-one percent of the enrolled families had low monthly incomes (under $438), 88% of the families had children, 51% resided in cities, 24% resided in towns and fewer resided in the suburbs (5%) and on farms (2%). All were from diverse ethnic origins (USDA, Extension Service, EFNEP, 1994). Whites (76%) and African

Americans (78%) were the majority, followed by Hispanics (48%), Asian, and Native

Americans. Most of the participants were also in other programs like Food Stamps

(63%), Child nutrition (61%), and Supplemental Nutrition Program for Women, Infants,

and Children (WIC) (47%).

Henderson (1992) found that 2 out of every 5 or 3 out of every 4 residents of New

York City were not U.S. born. It was further estimated that the Hispanic population

would comprise of 1/3 of the US population by the year 2000. In New York State alone,

over 2 million Hispanics were documented with an estimated growth of 30% by the year

2000. These findings and the issue of the aging population, the opening of immigration

restrictions, and changes in family and living styles are challenges nutrition educators

would face in relation to the changes in income, age, ethnicity, primary language, values

and expectation of the participants.

The total number of adults that enrolled during FY97 were 204, 049 with 93%

females and 7% males. Youth enrolled in the EFNEP program during FY97 totaled

392,474, with 51% females and 49% males. Ethnic background, income, primary

language spoken, and area of residence were not reported in this data (S. Montgomery,

personal communication, 07/21/1998).

Methods of Education Used in the EFNEP

Content and Curriculum of the EFNEP Lessons for Participants

Nutrition education is offered to low-income families to increase awareness of the

importance of nutrition to health maintenance (Proulx and Jackson, 1989). The goal of

nutrition education is to aid low-income people in modifying their diets to attain optimal

nutritional status and health (Amstutz and Dixon, 1986; Proulx and Jackson, 1989).

Nutrition education is a multidisciplinary process that involves the transfer of

information, the development of motivation, and the modification of food habits.

Educators need to apply their skills and knowledge to adapt the information to enable the

participants to apply it to varied everyday situations (Chipman and Kendall, 1989;

Leverton, 1974). Each program must be tailored to the needs, interests, experiences, and

goals of the participants. Educators also need to distribute accurate information. The

selected information should be communicated in the amounts needed by the consumer.

Nutrition educators and consumers are faced with a competitive and hostile environment

of prevalent misinformation. The provision of sound continuing nutrition education

should enhance health, fulfillment, and productivity (Leverton, 1974).

Different states offer different lessons to the EFNEP participants with over 40 states

employing "Eating Right Is Basic 2 Curriculum" (ERIB) (Chipman and Kendall, 1989)

with a focus on food budgeting, food safety, and healthy eating (Hartman, McCarthy,

Park, Schuster, and Kushi, 1997). The Michigan State University developed ERIB as a

national curriculum. While some states have developed their own curriculum others have

developed their curriculum based on ERIB.

Oklahoma State University (OSU) Oklahoma Cooperative Extension Service

adopted the ERIB curriculum (Oklahoma State University, Extension Service, 3rd Ed.,

1995). The OSU curriculum consists of 10 sections with 18 lessons.

1. "Getting started" – Lesson 1: Introducing eating right is basic, Lesson 2: Starting

with the basics- food, equipment and knowledge.

2. "Let's talk nutrition" – Lesson 3: The food guide pyramid, Lesson 4:

Understanding food labels.

3. "Wise ways with food" – Lesson 5: Planning makes a difference, Lesson 6:

Making the most of your food dollars, Lesson 7: Keeping food safe.

4. "One step at a time" – Lesson 8: Bread, cereal, rice, and pasta group, Lesson 9:

Vegetable group, Lesson 10: Fruit group, Lesson 11: Milk, yogurt, and cheese group,

Lesson 12: Meat, poultry, fish, dry beans, eggs, and nut group.

5. "Making meals count" – Lesson 13: Breakfast-A healthy way to start the day,

Lesson 14: Choosing healthy snacks.

6. "Just for moms" – Lesson 15: Eating right for two, Lesson 16: Feeding your new

baby (0-4 months), Lesson 17: Feeding infants (4-12 months) and children.

7. "Weight a minute" – Lesson 18: Eating right is light.

8. "Activities for preschoolers; references and resources; and recipes."

9. "References and resources."

10. "Recipes."

Washington State University, Cooperative Extension employs ERIB curriculum with

some changes and additions (Washington State University, Cooperative Extension

Service, 1991). Also, Lopez and Berce (1989) employed the EFNEP core curriculum

using 18 lessons to test the relevant nutrition knowledge and dietary practices of Food

Stamp users. In another study, participants were taught basic nutrition, food management

and food preparation, food safety, and maternal-child nutrition based on their needs

(Brink and Sobal, 1994).

Teaching Materials

It was suggested that the methods used for teaching participants nutrition should include methods used in literacy education, because many participants have limited, inadequate, interrupted, or no education; are non-English speaking, or have limited and uncorrected vision (Nitzke and Voichick, 1992). Nutrition education materials for the public require a tenth grade or lower reading level since 1 out 5 US adults read at this level (Macario, Emmons, Sorensen, Hunt, and Rudd, 1998). Most nutrition education materials are written at a level too difficult for low literate readers due to the inherent nature of the subject (Nitzke and Voichick, 1992). Materials at a high reading level make groups with a low reading level miss out on the nutrition advice (Hartman, McCarthy, Park, Schuster, and Kushi, 1997). To this effect, Hartman, McCarthy, Park, Schuster, and Kushi (1997) specifically designed a low-fat nutrition education program to meet the needs of participants with low literacy skills. The strategies employed were simple, practical, relevant, and positive approaches in which substantial lowering of dietary fat intake was achieved. Henderson (1992) called for nutrition education materials to be correctly translated to Spanish, Creole, and Chinese to meet the needs of the racially and ethnically diverse audiences of New York City.

When instructing EFNEP participants, the best teaching method that results in change should be employed (Nitzke and Voichick, 1992). Macario, Emmons, Sorensen, Hunt, and Rudd (1998) investigated the most effective method for nutrition education intervention for a target audience with low literacy skills. Recommendations were made that effective nutrition intervention be built on participants' social networks, be presented

visually and interactively, and be culturally appropriate. Henderson (1992) highlighted the importance of employing nutrition education materials based on research of each culture to motivate a multicultural audience to change their dietary practices. Food preferences, cultural values, social and family interactions and personal beliefs were the key areas for research.

The materials that a paraprofessional uses should attract the interest of the participant, be easy to understand and provide feedback as recommended by the EFNEP (Leidenfrost, 1986). The ERIB curriculum is universally used because it fulfills the above features. Teaching materials may include visual aids, slides and audiotapes, videotapes, radio, mailed flyers, newsletters, and news releases (Wang and Ephross, 1971; Leidenfrost, 1986). Romero, Medeiros, and Melcher (1988) employed a 20-lesson curriculum using colorful slides and visual aides with the help of paraprofessionals to instruct 57 participants individually and in groups. This instruction consisted of one 45 to 60 minute lesson a week for 20 weeks. The results were improved food-shopping skills, nutritional knowledge, dietary practices and food management skills.

The use of appropriate teaching techniques, methods, and skills important to learning should be selected based on the subject matter. To provide successful outcomes with participants, EFNEP guidelines recommend explicitness, learner involvement, not frustrating learners, and learning planned for all family members (Leidenfrost, 1986). Following is a discussion of the program delivery methods.

Program Delivery Methods

Program delivery methods include direct teaching by paraprofessionals in a group (Wang and Ephross, 1971) or individual teaching sessions (Romero, Medeiros, and Melcher, 1988), mailings and telephone teaching to complement other teaching methods, and mass media to develop understanding, awareness and involvement in the education programs (USDA, Extension Service EFNEP, 1986).

One-to-one teaching is a session held in the home of an individual participant (USDA, Extension Service, EFNEP, 1986). The teacher focuses on the learner's individual needs and is able to target specific content and work with that individual until those basic skills are achieved (Block and Tredici, 1984). The method permits the recognition of actual changes among the participants (Chipman and Kendall, 1989; Anderson, 1988).

Tredici, Block, Omelich, and Laughlin (1988) employed the one-to-one method of instruction for 6 months to achieve significant outcomes in nutrition knowledge among 355 EFNEP participants. One-to-one teaching was stated by 97% of the subjects as important to the effectiveness of the EFNEP as contrasted to group teaching. One-to-one was the method preferred by non-English speaking participants.

In 1979, EFNEP was evaluated and recommendations were made in relation to conducting group instruction over individual instruction, which was the method employed in the first 10 years (Chipman and Kendall, 1989). Group teaching consists of clusters, small, or large groups (USDA, Extension Service, EFNEP, 1986). Cluster group teaching is a method of instruction offered to two to four persons. Small group teaching

21

is an informal method of instruction involving five to ten participants who no longer need individual attention and are able to learn away from home, and large group teaching involves eleven or more participants who are soon to exit from the program (Leidenfrost, 1986).

Group teaching promotes the development of social skills among the participants (Leidenfrost, 1986). In a review of EFNEP, Chipman and Kendall (1989) reported the advantages of group teaching were larger number of participants taught (caseloads), reduced cost of lesson per individual, and increased numbers of graduated participants. In addition, group teaching encouraged the use of visual materials, developed eagerness, friendship, and unity within groups. Chipman and Kendall (1989) reported that group teaching increased from 9% to 37% between FY84 and FY87. Promoting small group instruction allows more families to receive EFNEP lessons for the same dollars (USDA, Science and Education Administration/ES, 1981). Small groups were an effective alternative method and were recommended over individual more costly methods in 1979 (Chipman and Kendall, 1989). Large group teaching presents problems such as forming and maintaining groups, lack of cooperation when groups of participants who do not know each other meet together, transportation problems, language barriers, obtaining suitable meeting places, obtaining food recalls, and insufficient group teaching skills among paraprofessionals (Light and Randall, 1984; Dunn, Sims, and Brown, 1984). Individual and group teaching were both effective in improving the food scores, nutrition knowledge, and food practices of EFNEP participants (Block and Tredici, 1984).

Innovative Teaching Methods

Innovative methods were encouraged to expand program outreach and to improve retention of nutrition knowledge and meet diverse education needs of poor families (USDA, Extension Service, EFNEP, 1986; Randall, Brink and Joy, 1989). Chipman and Kendall (1989) reported the use of telephone by participants to seek additional information from the paraprofessional after the participants knew the paraprofessional. The paraprofessionals in Vermont and Nevada reported that they accomplished as much through this type of telephone lessons as they did during home visits. It was concluded that a well-developed and implemented multifaceted curriculum could effectively teach nutrition at an acceptable level in both rural and urban settings. The EFNEP/Food Stamp Project evaluated the program delivery methods of mail plus phone, small groups plus phone and small groups. The small group plus phone method was considered viable. Combining telephone instruction with group teaching provided the needed personal contact and was useful in addressing individual concerns. The drawbacks of telephone use were disconnected lines, the lack of telephones, and interruptions from television and children (Chipman and Kendall, 1989).

Effectiveness of Paraprofessionals

The use of paraprofessionals has been in existence for as long as this century. According to Reissman (1984) it was generally accepted that untrained persons with limited experience functioned effectively as paraprofessionals when trained on the job.

In 1963, Reissman pointed out several reasons for employing paraprofessionals such as providing more and 'closer' service for the poor, reducing staff shortage in human service organizations, and freeing the professional for other important roles (Reissman, 1984 p. 38). Hattie, Sharpley, and Rogers (1984) provided evidence that paraprofessionals were effective in delivering educational and social services compared to professionals. Paraprofessionals were successfully employed in human service institutions in various capacities such as instructional assistants; educational assistants; mental health technicians; health aides; case managers; social workers; physical, speech, and occupational therapy aides; vocational trainers; client advocates; outreach workers; and paralegals (Pickett, 1984). Their roles included counseling, crisis intervention, client evaluation, scheduling, group programs, referrals, teaching interpersonal skills, and outreach. Therefore, paraprofessionals were critical for improving the quality of human services in a cost-effective manner (Pickett, 1984).

In the Cooperative Extension Service, the creation of EFNEP resulted in the use of paraprofessionals. The EFNEP is the largest employer of paraprofessionals in the delivery of nutrition education to low-income families (Collazo et al., 1993). Because of the large numbers of paraprofessionals employed and the high cost involved, it was important determining their effectiveness (Chase, Larson, Massoth, Martin, and Nierberg, 1973). The effectiveness of paraprofessionals could be assessed through the changes in the audiences they taught (Chase, Larson, Massoth, Martin, and Nierberg, 1973). Several feasibility and impact studies focused on the EFNEP (Brink and Sobal, 1994; Chipman and Kendall, 1989; Romero, Medeiros, and Melcher, 1988; Tredici, Block, Omelich, and Laughlin, 1988) with few studies employed to directly assess paraprofessionals

(Chiza-Muyengwa and Ebert, 1991; Iscan and Nelson, 1977; Yerka, 1974; Olson, 1994).

Bremner, Campbell, and Sobal (1994) recommended further research to determine whether paraprofessionals who were indigenous were more effective than those who were not indigenous.

Paraprofessionals were used to provide nutrition education to 119 high-risk pregnant women in addition to counseling by a nutritionist. All the subjects received counseling and 60 received both counseling and paraprofessional instruction in infant and pregnancy nutrition. Positive dietary improvements in intake of milk, fruit and vegetable intake occurred in women who received additional assistance from the paraprofessionals (Bowering, Morrison, Lowenberg, and Tirado, 1976).

Yerka (1974) directed a study to determine the effectiveness of paraprofessionals in working with low-income families. The questions asked were (a) are paraprofessionals effective i.e., do clients benefit? (b) what characteristics make a paraprofessional effective? and (c) what contribution can an agency make towards paraprofessional effectiveness? The study proposed guidelines for paraprofessional selection, training, and supervision. The study examined paraprofessional effectiveness through the participants' success, and paraprofessional attributes that contributed to this success. The paraprofessional variables that were measured were knowledge of teaching and learning strategies, attitudes towards the job, job persistence, and on-the-job performance. The paraprofessional variables were compared to the participants' variables of attitudes/behavior, nutrition knowledge, nutrient levels, and food consumption. The mean participant posttest scores of nutrition knowledge recall and food behavior practices were used to determine the effectiveness of paraprofessionals. The subjects included 20

paraprofessionals who were trained and interviewed, an experimental group of 76 EFNEP

participants who received more than three visits from the paraprofessional and had the

pretest and posttest measures performed, and a comparison group of 13 participants who

received less than three visits and had one pretest measure. The relationship between the

paraprofessional results and those of the participants was determined. The knowledge of

teaching and learning of the paraprofessionals was positively associated with

participants' attitude/behavior, nutrition knowledge and nutrient level. On-the-job

persistence of the paraprofessional was positively associated with participants' nutrient

intake, and the paraprofessional's attitudes towards the job was positively associated with

participants' nutrition knowledge (Yerka, 1974).

Overall, the predictors of paraprofessional success as measured by improved

knowledge and behavior in the participants were greater knowledge of teaching and

learning, highly positive attitudes towards job, and positive job persistence (Yerka,

1974).

The EFNEP Paraprofessional

The EFNEP guidelines define a paraprofessional as a paid staff member who

receives direction from professionals and assists the efforts of professionals through

direct contact with participants in the conduct of educational programs (Leidenfrost,

1986). To effectively implement EFNEP, an appropriate match between participant

groups and indigenous paraprofessionals must happen (Randall, Brink, and Joy, 1989).

Other titles used for the paraprofessional are nutrition education assistant (NEA),

26

nutrition teaching assistant (NTA), or aide.

The paraprofessionals reside in the community where they work, have rapport with the low-income community (Yerka, 1974), and can speak the language of participants (Spindler, Jacobson, and Russell, 1969). This means that they understand the problems faced by the EFNEP participants (Randall, Brink, and Joy, 1989) and can act as a link between the agency, the professionals, and the participants (Yerka, 1974). When working with multicultural audiences, staff need to represent diverse backgrounds (Henderson, 1992). In New York City where participants are racially and ethnically diverse Henderson stated,

..."our staff members have insights that are indispensable to program development. And they enjoy trust among the people we serve, which means the educational messages are listened to and accepted (Henderson, 1992 pg. 19)."

According to a review by Olson (1994), early research on EFNEP was based on EFNEP effectiveness and feasibility and no studies focused on training of paraprofessionals except some studies that briefly mentioned training of paraprofessionals in impact studies. Yerka (1974), Iscan and Nelson (1977), and Bremner, Campbell, and Sobal (1994) felt that more research was needed to determine the characteristics that contribute to the job success of EFNEP paraprofessionals. Iscan and Nelson (1977) stated that there was confusion about what constituted a successful paraprofessional and the kind of candidate to be selected and recruited as a paraprofessional even though evidence showed their services to be beneficial.

Decisions about staffing were questioned by Henderson (1992). The questions were whether hiring criteria, experience, or academic qualifications were essential to an

effective paraprofessional. It was further asked if individuals who could not speak or write fluently could be hired and would professionals change training strategies if this was the case? Following is a discussion of the characteristics deemed to be important for job success.

General characteristics of EFNEP paraprofessionals

The EFNEP success is attributed to the use of trained paraprofessionals from the local community to educate participants in food and nutrition topics under the supervision and support of professionals (Kennedy, Hunt, and Hodgson, 1998). According to EFNEP data FY97, the total number of paraprofessionals employed was 2,619 and translated into 1,453.7 full time equivalents (FTE). The paraprofessional ethnic and racial breakdown was 47% Caucasians, 35% blacks, 15% Hispanics, 2% Asian/Pacific Islanders, and 1% American Indians. Ninety-seven percent were females and 3% were males. The ethnic and racial breakdown did not differ much among the years 1989, 1995, or 1997 (Table 2). The majority were white, followed by black, Hispanic, American Indian and Asian (Table 2) (S. Montgomery, personal communication, 09/15/98).

The paraprofessional has no college degree and has less education than the professionals (Bremner, Campbell, and Sobal, 1994) and was indigenous to the target audience (Leidenfrost, 1986). Indigenous was defined as having socioeconomic and cultural characteristics similar to the client population, including living in the same neighborhood (Bradish, 1980; Bremner, Campbell, and Sobal, 1994). To be an EFNEP paraprofessional, individuals were required to be fluent in the clients' languages or

Table 2. Summary of paraprofessional profiles FY97, FY95, and FY89.

FY97	Female	Male	Female	Male	Total	Total number
			%	%	%	
White	1212	11	46	0	47	1223
Black	904	12	35	0	35	916
Hispanic	396	6	15	0	15	402
American Indian/Alaskan	33	0	1	0	1	33
Asian/Pacific Islander	43	2	2	0	2	45
Total	2588	31	99	1	100	2619

FY95	Female	Male	Female	Male	Total	Total number
			%	%	%	
White	1019	11	44	0	45	1030
Black	873	8	38	0	38	881
Hispanic	282	4	12	0	12	286
American Indian/Alaskan	43	1	2	0	2	44
Asian/Pacific Islander	72	4	3	0	3	76
Total	2289	28	99	1	101	2317

FY89	Female	Male	Female	Male	Total	
			%	%	%	
White	1488	11	45	0	45	
Black	1250	11	38	0	38	
Hispanic	449	0	14	0	14	
American Indian	40	0	1	0	1	
Asian	59	3	2	0	2	
Total	3286	25	99	1	100	

dialects and understand the culture of the group (Randall, Brink, and Joy, 1989).

Santopolo and Kell (1976) stated that Extension recognized the value of the paraprofessionals but was faced with the challenge of determining the abilities of the person without a college education. According to Reissman, as reported by Santopolo and Kell (1976 p. 7), 'nonprofessional describes what he is not but does not clearly indicate what he is.' It was therefore necessary to carry out the present study to determine the important personal attributes needed for the paraprofessional job success.

Personal Attributes of Paraprofessionals deemed Important for Success

For this study, a personal attribute is defined as the standard used to measure values, beliefs, attitudes, interests, or behaviors an EFNEP paraprofessional already has before being hired (Webster's Third New International Dictionary of the English Language, 1986). Giblin (1989) reviewed the characteristics of indigenous paraprofessionals. The indigenous qualities or personal attributes that enhanced the paraprofessional role were:

...Possession of the social, environmental and ethnic qualities of a subculture and sharing with a participant of a verbal and nonverbal language, an understanding of a community's health belief and barriers to health care services, and an enhanced empathy with, and responsibility toward a community and their health service needs (Giblin, 1989 p. 361).

Giblin (1989) stated that personal characteristics of paraprofessionals like warmth, ability to learn, evidence of natural leadership, demonstrated ability to accept responsibility, desire to help others, mutual understanding, and reprocity fostered desired

change among the participants. According to the EFNEP guidelines, attributes like acceptance, respect and sincerity are important as are the understanding of conditions that enhance learning (Leidenfrost, 1986).

Iscan and Nelson (1977) asked former EFNEP paraprofessionals, currently employed EFNEP paraprofessionals, and county EFNEP professionals to rank 19 paraprofessional characteristics as to how important each characteristic was to consider when hiring the paraprofessional to predict success. The 19 characteristics used in the study by Iscan and Nelson (1977) were: ability to express, alertness, appearance, attitude about learning, clarity of thinking, cooperative effort, ability to relate with people, judgment, enthusiasm, conversational ability, ability to grasp information, attitude about self, emotional balance, inner drive, interest, perseverance, planning ability, poise, and attitude toward self. The following characteristics were considered by all to be important to consider when hiring, ability to relate with people, attitude toward others, and poise. The EFNEP county professionals ranked these characteristics among the top five: ability to relate with people, attitude toward others, ability to express, ability to grasp information, and attitude about learning. The ability to note the needs and interests of the participants calls on the skills of observation and listening on the part of the paraprofessionals (Leidenfrost, 1986). Currently employed EFNEP paraprofessionals ranked the following in the top five: ability to relate with people, appearance, attitude towards others, ability to express, and interest (Iscan and Nelson, 1977). Maturity of the paraprofessionals, job persistence and positive attitudes towards work enhanced participants' nutrition knowledge (Yerka, 1974). These were characteristics that were required to achieve program goals (Yerka, 1974).

31

Santopolo's and Kell's (1976) study on critical job requirements for paraprofessional in the EFNEP reported the following personal attributes as important.

"Exhibiting initiative and being able to take appropriate action needed to help the client. Being positive, enthusiastic, persuasive, self-confident, committed, and concerned. Gaining clients' confidence and establishing credibility. Determining a participant's degree of interest in the program objectives at the end of the initial contact" (Santopolo and Kell, 1976 p. 9).

Spindler, Jacobson, and Russell (1969) recommended as appropriate criteria for selecting paraprofessionals, empathy and compassion for low-income families, sharp understanding and appreciation of values and standards in society, a demonstrated ability to work with people, maturity and flexibility, receptiveness to new ideas and acceptance of supervision from professional staff, energy, enthusiasm, and willingness to work even when results are minute and delayed. Other characteristics that supported the work of paraprofessionals were self-reliance, perseverance, common sense, creativity, imagination, and mutual dependence on peers (Shafer, 1984).

The success of a program requires that the nutrition educator be skillful, which requires the systematic isolation of the skills and characteristics that a paraprofessional needs to possess in order to be successful on the job. A discussion of the competencies and skills follows.

Job Competencies of Paraprofessionals deemed Important for Success

For the present study, job competence was defined as the standards that relate to

knowledge and skills necessary for a paraprofessional to have before being hired, and

after completing an orientation in training but before working with EFNEP participants

(Broberg, 1987; Webster's Third New International Dictionary of the English Language,

1986).

A more detailed definition of competence follows.

Competence as an operational definition: To some competence is seen as the

application of knowledge; and to others, it is knowledge and skill combined; still

others maintain that knowledge and skill constitute separate competencies. Some

equate competence with behavioral objectives; others see competence as more global

and general in concept. Some hold that a competence, like behavioral objective,

demands a very specific set of knowledge; while others state that competence

addresses only broad process skills that are essentially content and knowledge free.

Some claim that only directly measurable performance comprises competence; while

others maintain that unexpected and unmeasurable learning outcomes are included in

the concept of competence (Butler, 1978 p. 7).

In 1986, the job competencies to possess before being hired, as recommended by

USDA, included: the ability to communicate orally with the participants; read and

understand materials to be used, write and keep records, and make reports; learn and

comprehend the subject matter content and transfer it to the participants; adapt to various

situations; meet and work with individuals and small groups; follow oral instructions;

keep all participant information confidential; and work with people who may have

different standards (Leidenfrost, 1986). The paraprofessionals must have the potential

for learning the job competencies and be able to successfully work with the participants

(Leidenfrost, 1986). The expert in this case was the USDA and there was no mention concerning the definition of job success of paraprofessionals who held these competencies. Spindler, Jacobson, and Russell (1969) stated that the selection of paraprofessionals depended on their ability to read, write reports, and understand the teaching materials. The criteria for choosing an aide were: a demonstrated ability to work with people; acceptable standards in homemaking skills; and educational background necessary to understand and follow training and policies required for conducting an educational program on this level (Spindler, Jacobson, and Russell, 1969). Yerka (1974) found achievement of program goals by the participant was related to paraprofessional characteristics such as good job performance and knowledge of the teaching and learning strategies. These characteristics were indicative of what the program officials should consider when hiring and training paraprofessionals in order to achieve the desired program outcomes. The critical job skills required of EFNEP paraprofessionals for job success were working closely and continually (follow-ups) with participants on one-to-one basis, using materials that are relevant and understandable to the specific needs of a participant, and demonstrating technical knowledge in area of food and nutrition information to participants (Santopolo and Kell, 1976).

The following characteristics were considered when evaluating classified paraprofessionals in food service: communication skills, effectiveness with pupils, operation and care of equipment and materials, and productivity or quality of work (Pels, 1984). According to Giblin (1989), the guiding principles for recruitment and selection are skill and capacity to meet the program tasks and knowledge of community resources.

Training of Paraprofessionals

Shafer (1984) stated that even though paraprofessionals were untrained and uneducated they were well meaning in their work and were guided by principles like common sense, used simple approaches, and focused on their work with participants. They relied on peer support for problem solutions (Shafer, 1984). However, Spindler, Jacobson, and Russell (1969) highlighted that the danger of using paraprofessionals was they were not limited by the facts as professionals, and were free to make their story appear good to the audience. The lack of formally gained knowledge worked to the advantage of a paraprofessional because of the high expectations they had of their students' abilities, and because doubt and theoretical limitations had not been learned as is the case among professionals (Shafer, 1984).

Wang (1977) found that the teaching-learning process between the paraprofessional and the participant involved the giving of misinformation along with the correct information. This was a reminder of the importance of training, reinforcement of training, and supervision in the area of nutrition. Hence initial training was important for unlearning prior misconceptions about nutrition and learning new concepts of nutrition to ensure accurate communication.

State EFNEP coordinators and county EFNEP professionals provide paraprofessional training (National Agricultural Research Extension, and Teaching Policy Act, 1981). Paraprofessionals undergo two phases of in-service training. The first phase is a concentrated initial training phase when paraprofessionals are first employed and during the early stages of being on the job. The second phase of training is on-the-job training, which is throughout the employment period (Contento et al.,

1995; Leidenfrost, 1986).

The initial training varied by state with some states providing 15 full days (120 hours) and others providing 10 days of intensive training (USDA, Extension Service, EFNEP, 1986). Three weeks of intensive training covering 15 lessons over a 30 hour time span, were recommended for initial training (Spindler, Jacobson, and Russell, 1969; Wang and Ephross, 1971).

The initial training as outlined by the EFNEP, develops job competencies such as understanding the purpose of the program, scope of the work, how people learn and change; providing learning experiences appropriate for the participants; bringing about changes in attitudes, knowledge, and skills of all the participants; observing and identifying the behavioral changes of the participants; understanding and communicating subject matter; establishing rapport with low-income families; using principles of group teaching, developing recruitment skills; acquiring knowledge about community resources available to the participants; becoming familiar with referral procedures; recognizing participants' readiness to graduate from the program; keeping records, using information to assess progress of the participants; creating teaching plans; and understanding rules, standards, and ethics that guide performance on the job (Leidenfrost, 1986). In addition, audience identification, methods of teaching, and introduction to other Extension programs is often recommended as part of initial training (USDA, Extension Service, EFNEP, 1986).

On-the-job training builds on the competencies developed during the initial training and enhances personal growth of the paraprofessional (Leidenfrost, 1986). On-the-job training also helps a paraprofessional to solve problems encountered while working

36

(Leidenfrost, 1986). According to Wang (1977), the method of on-the-job training was most efficient in improving program effectiveness and was most supportive of a paraprofessional's activities. Becker (1977) stated that training benefited the organization by providing competent people to perform the jobs.

A study of the EFNEP in Maryland demonstrated the possibility to recruit, train, and place paraprofessionals in the field, as nutrition educators, with backgrounds similar to the EFNEP participants (Wang and Ephross, 1971). The researchers found that the nutrition paraprofessionals in the EFNEP were able to learn, benefit from the training, and supervision, establish relationships, and work effectively with the low-income families. Paraprofessionals need to be competent in the subject matter and recognize their limitations regarding the subject matter. Chiza-Muyengwa and Ebert (1991) emphasized the importance of determining the nutrition knowledge of EFNEP paraprofessionals based on their duties as nutrition educators. The identification of the strengths and weaknesses in nutrition knowledge of paraprofessionals would aid program planners in effectively training the paraprofessionals. Chiza-Muyengwa and Ebert (1991) found paraprofessionals to be knowledgeable in meal planning, food preparation, food storage and sanitation but less knowledgeable about the meaning of the US RDA, the recommended number of milk serving for teenagers, milligrams of cholesterol contained in the egg, food group classification and knowledge of protein content of foods.

Reames and Burnett (1991) carried out a study where obese black paraprofessionals participated in a weight control program. The paraprofessionals gained knowledge related to weight management and lifestyles that influence weight (diet, exercise, and eating) and obesity indicators (weight and BMI). It was thought that the

changes observed among the paraprofessionals, would be reflected among the participants they taught.

Training is important but an understanding of the processes of behavior change among people with different sociocultural circumstances is also important. Thus educators need to examine their attitudes toward understanding of low-income groups whose food habits are influenced by a complex interaction of social and financial factors (Kennedy, Hunt, and Hodgson, 1998).

The Delphi Technique

Dalkey (1969) at the Rand Corporation developed the Delphi technique. Delphi technique uses a simple pooling and refining of individual judgment (Dalkey, 1969; Delbecq, Van de Ven, and Gustafson, 1975) without verbal clarification to resolve differences (Delbecq, Van de Ven, and Gustafson, 1975). The Delphi technique is a group communication process, which utilizes a series of questionnaires and written responses and does not require face-to-face contact. Therefore it is a useful tool for organizing and sharing expert opinion in instances when experts cannot come together physically. The Delphi technique prevents the domination of individuals in the group as frequently occurs when panels or experts meet face-to-face (Delbecq, Van de Ven, and Gustafson, 1975). The rationale for the procedures is primarily the age-old adage "two heads are better than one," when the issue is one where the exact knowledge is not available.

In the spring of 1968, a series of experiments were initiated at Rand Cooperation to

evaluate the procedure (Dalkey, 1969). The experiments were designed to explore the nature of the information processes occurring in the Delphi interaction. The experiments were conducted using upper class and graduate students from University of California at Los Angeles and general information of the almanac as subject matter. Ten experiments were conducted, involving fourteen groups ranging in size from 11 to 30 members, and generating 1,300 answers to 350 questions. The two basic issues examined were (a) a comparison of face-to-face discussion with the controlled feedback interaction, and (b) a thorough evaluation of controlled feedback as a technique of improving group estimates. The results indicated that, more often than not, face-to-face discussion tended to make the group estimates less accurate, whereas, the anonymous control feedback procedure made the group estimates more accurate. The experiments put the application of the Delphi technique in areas of partial information on much firmer grounds. No evidence was provided that feedback of reasons for responses helped to improve accuracy of the Delphi. Following is a discussion of studies that employed the Delphi method.

To complete the structured communication of Delphi, the overall procedures have the following three features: (a) some degree of anonymity of response where opinions of members of a group are obtained by formal questionnaire, (b) iteration and controlled feedback where interaction is effected by a systematic exercise conducted in several iterations, with carefully controlled feedback between rounds on their individual contribution of information and knowledge, and (c) statistical group response which defines the group opinion as an appropriate aggregate of individual opinions on the final round. These features were designed to minimize the biasing effects of dominant individuals, of irrelevant communications, and of group pressure towards conformity

39

(Dalkey, 1969). The Delphi technique can consist of one or more rounds of open-ended questions or category statements to pool original statements from respondents, with follow-up rounds of questions directing the respondents to rate their statements for importance in relationship to each other (Cyphert and Gant, 1971).

Applications of the Delphi Technique

The Delphi technique was considered a forecasting procedure. Since its invention, several studies in various disciplines have employed the Delphi technique in other applications including the planning of university curricula, developing job competencies, and researching business (Helmer, 1966). Helmer (1983) used the technique to forecast technological factors concerning the year in which a machine capable of comprehending standard IQ tests and provide a score above 150 would be invented. The initial rounds gave divergent responses from the year '1980 to never.' In subsequent rounds, the panel of experts reached some degree of convergence with the interquartile range from 1984 to 2000 giving the median as the year 1990.

The Oklahoma State Department of Vocational Technical Education used the Delphi technique as a forecasting tool to provide information for the future direction of research and education (Hopkins, Ritter, and Stevenson, 1972). Hester (1980) used the Delphi method to explore the feasibility of marketing solar heating systems through public utilities. Information was sought from both the experts (professors) and non-experts (undergraduate students). Three rounds were employed including ranking and categorizing of the responses. Cyphert and Gant (1971) used the Delphi technique in an

opinion questionnaire to elicit preference from the faculty of the School of Education at the University of Virginia and other concerned parties. Glosson (1979) applied the Delphi approach to determine competencies needed by teachers of Vocational Education for the handicapped. Harritt (1987) used the Delphi method to solicit opinions of Oklahoma farmers concerning alternative practices during the economic crisis. Broberg (1987) used the Delphi technique to determine how hiring officers in Metropolitan Statistical and Non-Metropolitan Statistical area districts across the nation ranked criteria for hiring new certified schoolteachers. He developed a consensus ranking of sixteen personal and professional criteria that are important to school hiring officers in hiring newly certified teachers. Two rounds of questionnaires and a predetermined list of criteria were used. This was a deviation from the classical Delphi but was justified by the researcher for using his predetermined lists and two rounds. In nutrition research, Haessig (1979) applied a two-round Delphi to identify and verify competencies for entry-level community dietitians. The questionnaire was a competency inventory consisting of 59 items grouped into five categories. In a two-round Delphi, Boudreaux, Shanklin, and Johnson (1991) determined the skills, attributes and knowledge dietitians needed to succeed in business and industry. Olmstead-Schafer, Story, and Haughton (1996), employed the Delphi technique to forecast training needs in the area of public health.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this chapter is to address the methodology and procedures that were followed in conducting this study.

The objectives of the study were:

1. To determine the content currently provided to EFNEP paraprofessionals at initial training programs and length of time for the initial training.

2. To determine personal attributes and job competencies that are necessary for job success of EFNEP paraprofessionals as perceived by EFNEP professionals.

3. To rank the personal attributes and job competencies needed by paraprofessionals to be successful on the job as perceived by the EFNEP professionals.

4. To categorize the job competencies desired of EFNEP paraprofessionals by EFNEP professionals.

Data consisted of EFNEP professionals' responses to open-ended questions about what are the important personal attributes and job competencies needed of paraprofessionals. Data also consisted of the professionals rating the items generated and compiled from the open-ended questions. The lists of the compiled characteristics were eventually put into categories.

Research Design

This study used a descriptive design to meet the objectives. A modified Delphi method was used to collect the data from the respondents. Oklahoma State University Institutional Review Board (Appendix B) approved this study.

Pilot Study for Delphi Round 1 Questionnaire

The first step in constructing the Delphi questionnaire was to identify the potential attributes and competencies for inclusion in the successive instruments (Delbecq, Van de Ven, and Gustafson, 1975). The initial questionnaire was developed based on the review of the literature. Validation of an instrument consists of determination of content validity and practicality (Argo, Watson, and Lee, 1984; Mehren and Lehmann, 1975). A pilot test was carried out to test the practicality of the open-ended questions and determine content validity. According to Delbecq, Van de Ven, and Gustafson (1975), five to nine experts can adequately pilot a Delphi question. Eight professionals in Oklahoma Cooperative Extension who were familiar with EFNEP and two researchers familiar with the Delphi method from Oklahoma State University were the expert panel (ten total). The experts were asked to complete the demographic questions and to generate the characteristics that are important for job success of a paraprofessional based on the following three questions.

1. (a) What personal attributes do you think a paraprofessional in nutrition education should have before being hired?

(b) For each personal attribute, provide a reason you think this attribute is important and desirable for a paraprofessional to possess.

2. (a) What job competencies do you think a paraprofessional should have before being hired?

(b) For each job competency, provide a reason you think the competency is important and desirable for a paraprofessional to possess.

3. (a) What job competencies do you think a paraprofessional should have after completing an orientation in-service and before working with EFNEP participants?

(b) For each job competency, provide a reason you think the competency is important and desirable for a paraprofessional to possess.

In the letter (Appendix C), the pilot study subjects were asked to address how easy, understandable, clear the questions were, and the length of time taken to fill out the responses. The pilot survey was distributed by postal (n=6) and campus (n=4) mail to the pilot subjects. Six out of ten questionnaires were returned and changes were made based on the recommendations given by the expert panel.

Subjects

Sample Selection

Identifying qualified respondents is a prerequisite for successful Delphi studies (Delbecq, Van de Ven, and Gustafson, 1975). To identify characteristics of successful EFNEP paraprofessionals, the subjects for this study were the EFNEP state coordinators

and the EFNEP county extension educators as the professionals or the expert sample. It was felt that this group had a stake in the study and the information sought would be of value to their position as decision-makers in EFNEP.

To be a subject in this study, the person had to be employed in the EFNEP and not employed by a combination of EFNEP and some other extension program. There were approximately 56 state coordinators and an estimated 1,500 EFNEP county extension educators (Federal EFNEP office, April 25, 1997) who supervise approximately 2,619 EFNEP paraprofessionals (S. Montgomery, personal communication, 07/21/1998).

Subject Recruitment

Names and addresses of the state professionals were obtained from a list of EFNEP state professionals (Federal EFNEP office, April 25, 1997). The professionals with the title of EFNEP coordinator, extension specialist, nutrition education specialist, or EFNEP program leader from 49 states and the five territories of Puerto Rico, American Samoa, Guam, Northern Marianas, and Virgin Islands were invited to participate in the study. The EFNEP coordinators of Oklahoma and Micronesia were not invited to participate.

Electronic mail messages were sent to the EFNEP state coordinators in the United States and its territories. Five coordinators did not have an electronic mail address, so a postal letter was sent. The recruitment letter (Appendix D) contained the invitation to volunteer to participate in the Delphi study, the purpose of the study, the explanation of the Delphi process, and the importance of participation through the three rounds of the Delphi process.

45

During the process of recruitment, more than 54 subjects were invited. One territory sent the name of the correct contact so another letter was sent and that person volunteered. One state coordinator declined because she was no longer the coordinator and sent the names of two people, both of whom declined. Two state coordinators had retired. Of these two retired coordinators, one volunteered and was included in the data set. That same coordinator also sent the name of the interim coordinator who was excluded in the set due to late response to the invitation. The other retired coordinator sent a name, but the subject declined. Two other state coordinators eventually volunteered, but were excluded in the data set because they volunteered too late. In all, a total of 60 persons were invited to participate (Table 3).

The invitation letter also asked the state professionals to send names, phone numbers, electronic mail or postal addresses of county and area extension professionals that supervise EFNEP paraprofessionals. Some of the state professionals provided names and addresses of four county EFNEP extension educators. Two extension educators were not employed by EFNEP and were excluded from the study. Thirty-nine county EFNEP extension educators were sent the round 1 survey and 23 returned the round 1 survey. One county survey was excluded because the survey arrived late. The round 1 questionnaire with a recruitment letter was sent via electronic and postal mail to 39 county and area extension educators inviting them to volunteer to be in the study (Table 3). The county professional recruitment letter stressed the importance of their ability to respond to all three rounds. In addition, the need for quick, two-week turn around for each of the three rounds was requested. The states and territories and the number of state EFNEP coordinators contacted and county or area professional names

received is in Table 3.

General Delphi Procedures

In order to accomplish the purpose of the study, the Delphi technique was selected because of its ability to construct an instrument aimed at a specific group, such that the people need not be in the same geographic place. Three successive Delphi questionnaires or rounds were conducted to measure the consensus of professionals on the relative importance of personal attributes and job competencies for job success of an EFNEP paraprofessional. Delphi round 1 questionnaire generated the characteristics by the professionals as in the classical Delphi study. Delphi round 2 questionnaire was a compiled list of items generated from round 1 and requested a rating by the professionals and information sheets with definitions to the items generated. Delphi round 3 questionnaire provided the mean ranking of the items from round 2 with an opportunity for the professionals to

re-rate the items in an attempt to reach a consensus and categorize the items under various groupings.

EFNEP Professional Delphi Round 1 Questionnaire

The initial questionnaire was developed based on the review of the literature and professional input from the pilot study. The first questionnaire consisted of three areas, the demographic questions (Appendix E), three formal open-ended questions (Appendix F), and a list of topics taught at the initial training of EFNEP paraprofessionals

(Appendix G). The cover letter (Appendix H) contained instructions for filling out the

demographic information sheet and Delphi round 1 questionnaire and outlined the steps

the Delphi study would entail. The respondents were requested to respond to each

question by writing down personal attributes and job competencies needed for job

success of paraprofessionals. They were also asked to give reasons they felt the attributes

and competencies they listed were desirable.

The formal open-ended questions were:

1.   (a) What PERSONAL ATTRIBUTES do you think a paraprofessional in nutrition

education should have before being hired?

(b) For each personal attribute, provide a reason you think this attribute is important

and desirable for a paraprofessional to possess.

2.   (a) What JOB COMPETENCIES do you think a paraprofessional should have

BEFORE being hired?

(b) For each job competency, provide a reason you think the competency is

important and desirable for a paraprofessional to possess.

3.   (a) What JOB COMPETENCIES do you think a paraprofessional should have

AFTER completing an orientation in-service and before working with EFNEP

participants?

(b) For each job competency, provide a reason you think the competency is

important and desirable for a paraprofessional to possess.

Formal open-ended questions were presented to the professionals to encourage the

subjects to list any attributes and competencies they felt were important for the job

success of a paraprofessional and the reason they felt was important. A definition for

personal attribute and job competency was included to assist respondents in listing the required characteristics.

Procedure for the Collection of Delphi Round 1 Data

A modified Dillman (1978) technique was used to distribute the questionnaires. In the first round, 20 state EFNEP professionals volunteered (Table 4) and presented addresses of 39 county EFNEP professionals (Table 3) who were sent a cover letter, definition of personal attribute and job competency and the questionnaire via electronic mail (total n=41) or postal mail (total n=19) with a self-addressed, postage paid envelope. Two weeks after the questionnaire was sent, all the respondents were sent a reminder postcard or electronic mail message (Appendix I). Ten days after the reminder postcard was sent, a second questionnaire was sent to the non-respondents.

Analysis of Delphi Round 1 Questionnaire Data

Two researchers analyzed all questionnaires and came to consensus regarding interpreting and categorizing responses. The responses generated by each subject were written on a 3" by 5" card. The responses were sorted according to the closeness or similarity in the statements for the three questions, personal attribute, job competency before hire, and job competency after training. This analysis was guided by reasons generated with each characteristic. The responses were then rephrased such that the same words were used while maintaining the subjects' initial ideas. The responses were

reevaluated until the two researchers came to agreement. A list summarizing the identified attributes and competencies was compiled. This list reflected the initial ideas of respondents concerning the important characteristics required for job success of paraprofessionals. Another list of definitions was compiled for each characteristic using the reasons given by the subjects.

Pilot Study for Delphi Round 2 Questionnaire

A second pilot study was completed to test for accuracy and effectiveness of Delphi round 2 questionnaire that was developed from round 1. The characteristics generated from the round 1 questionnaire were compiled into a list in a table format. Three columns were created. One column had the characteristics that were generated; the second column had the rating scale of 1 to 5 with 1 "not important" and 5 "very important" and N/A "not applicable." The third column was provided for the professionals to give reasons if they felt the characteristic did not apply to the success of paraprofessionals. The pilot study was completed to test for clearness of table format, accuracy, clarity, and usability among four professionals at Oklahoma State University (Appendix J). Again, changes and corrections were made to the structuring of the instrument based on the input from the panel of experts.

EFNEP Professional Delphi Round 2 Questionnaire

The Delphi round 2 questionnaire (Appendix K) consisted of tables that listed

personal attributes, job competencies before hire, and job competencies after training generated by the professionals from each of the three questions in Delphi round 1. The attributes and competencies were listed in an alphabetical order. The characteristics were not sequenced or grouped based on similarities in the characteristics. The nonsequencing of the characteristics served to eliminate a biased response. An inclusion criterion for the items was based on all the responses given by the professionals. No items that were generated were omitted. A rating a scale of 1 to 5 with 1, "not important" and 5, "very important" and N/A, "not applicable" was used to rate each characteristic. A column was also included for the respondents to give their reasons why a characteristic was considered "not applicable."

A cover letter (Appendix L), definitions for the characteristics, a self-addressed post-paid envelope were mailed with the questionnaire. The cover letter requested the respondents to provide the rating for each characteristic and provide reasons if they thought the characteristic did not apply. Round 2 questionnaire asked the respondents to add any characteristics that they felt were important for job-success that were not generated in round 1.

The respondents were also asked to refer to an attachment consisting of the definition given to each characteristic if they needed further clarification (Appendix M). These definitions were based on in put of the respondents on round 1. The questionnaire comprised of three lists, one for personal attributes, one for job competencies before hire and one for the job competencies after training.

The respondents saw all the characteristics as generated by the other subjects. The respondents were asked to review the characteristics and rate the characteristics

generated. The rating scale for each attribute and competency was on a scale of 1 "not important" to 5 "very important" and the response "not applicable" meant that characteristic did not apply to this study. Round 2 questionnaire asked the respondents to add any additional characteristics that they felt were important for job-success that were not generated in round 1.

Procedure for Collection of Delphi Round 2 Data

Delphi round 2 questionnaire (Appendix K) was mailed to the respondents who returned the round 1 questionnaire. A reminder postcard was sent out two weeks after the postal mailing of the questionnaire (Appendix N). The questionnaire was sent a second time to non-respondents 10 days after the reminder postcard was sent (approximately 20 days after the first mailing) (Dillman, 1978).

Postal mailing was used for all questionnaires on this round due to the amount of paperwork involved (three information sheets and the enclosures of the survey, cover letter and sheet for directions). In addition, electronic mail was unable to send the table format.

Analysis of Delphi Round 2 Questionnaire Data

One researcher calculated an arithmetic mean rating score based on the responses (Steel, Torrie, & Dickey, 1997). The mean was calculated for each characteristic by adding all the ratings given to a particular characteristic and dividing it by the number of respondents that rated the item. Below is the formula used to generate the arithmetic

mean:

(1). $\overline{X} = \sum_{i}^{n} X_i / n$

Where X bar ($\overline{X}$) is the mean equals the sum of the ratings (X) given to each

characteristic divided by n, the number of respondents. A summary of reasons written for

some characteristics was also considered. If the reason given was that it was a

competency rather than an attribute, it was moved to the listings for competencies. The

researcher then ranked the characteristics according to the relative importance displayed

by the mean rating. A rank of 1 was given to the characteristic that carried the highest

mean rating. The characteristics that had the same mean scores were given the same

ranking. The researchers took the prerogative to eliminate those characteristics

considered to be neither attributes nor competencies. The characteristics that were

determined based on the definition of the study to be neither attributes nor competencies

were placed in the category of job requirements or they were omitted from the study if

they did not fit into the above category. Characteristics that were paired were separated.

Six new characteristics from the literature were added and increased the number of

competency characteristics after training to 43 (Leidenfrost, 1986). These were (a)

interpret the results of the 24-hour food recall, (b) ability to make initial and follow-up

home visits to families, (c) to not impart own belief system to participants, (d) ability to

bridge participant culture and that of professional, (e) willingness to accept direction

from supervisor and (f) decide when to conclude a teaching session and graduate learner

based on learner's capability. Blanks were left as no score and were not calculated in the

means. Means were used because of their ease of comparison and because means are not

highly influenced by extreme scores as occurs in ranking.

EFNEP Professional Delphi Round 3 Questionnaire

The Delphi round 3 questionnaire (Appendix O) consisted of three lists of characteristics deemed important for paraprofessional job success. The personal attribute list consisted of four columns: (a) personal attributes, (b) column with ranking received by the attribute, (c) column with the mean score received by attribute, and (d) a column for re-rating the attribute. A rating a scale of 1 to 5 with 1 "not important" and 5 "very important" and, N/A "not applicable" was used. The competency lists consisted of five columns in a table. The first four columns were the same as for the table listing the attributes. In the fifth column, the respondents were asked to categorize the competency characteristics based on their professional experience and understanding. The competency categories provided were "communication skill," "teaching skills," "organizational skills," "knowledge," "interpersonal skills," and "other." "Other" was provided to cover those characteristics that did not fall under the listed categories.

The questionnaire allowed the respondents to review their responses and express their individual judgments as to the importance of each item according to the revisions made from round 2 analysis. The respondents saw the ranking given to each characteristic with one as the most important characteristic. The respondents also saw the mean score received by each item. This allowed the respondents to consider further clarifications and change personal rating if they desired using the same rating scale as round 2. The rating scale provided for each attribute and competency was on the scale of 1 "not important" to 5 "very important," and N/A "not applicable." Respondents were asked to list additional characteristics that they felt were important for job success.

Subjects received with questionnaire (Appendix O), a cover letter (Appendix P),

definitions of attribute and competency, and a self-addressed postage paid envelope. The

cover letter requested the respondents to provide the re-rating for each characteristic and

place the characteristics into categories.

Procedure for the Collection of Delphi Round 3 Data

Delphi round 3 was mailed to respondents who returned the round 2 questionnaire

and those that had returned the round 1 questionnaire. A reminder postcard (Appendix

Q) was sent out two weeks after the mailing of the questionnaire. Another questionnaire

was mailed a second time 10 days after the mailing of the reminder card (20 days after

the first mailing of round 3) to the respondents who did not respond during the period of

time given (Dillman, 1978).

Analysis of Delphi Round 3 Data

One researcher calculated the arithmetic mean rating based on the ratings given by

the respondents using equation (1) applied in round 2 data analysis. Again, using the

mean response for each characteristic in round 3, all the characteristics were ranked from

the lowest to the highest with 1 being the highest (most important to least important).

The category statements were compiled and a frequency given to each item. The

assignment of an item to a category was based on the highest frequency it received from

the responses given.

Presentation of the Results

Mean scores generated were interpreted as to importance based on the following scale:

A mean range of 4.5 to 5 determined 'very important' characteristics.

A mean range of 3.5 to 4.49 determined 'important' characteristics.

A mean range of 2.5 to 3.49 determined 'moderately important' characteristics.

A mean range of 1.5 to 2.49 determined 'slightly important' characteristics.

A mean range of 1 to 1.49 determined characteristics that were 'not important'.

Table 3. Number of EFNEP State professionals asked to volunteer and number of county professionals' names provided by state professionals.

State	State professionals	County professionals
Alabama-AL	1	--[1]
Alaska–AK	1	–
Arizona–AZ	1	3
Arkansas–AR	1	–
California-CA	1	--
Colorado–CO	1	--
Connecticut-CT	1	3
Delaware-DE	1	1
Florida–FL	1	--
Georgia-GA	1	--
Hawaii–HI	1	--
Idaho–ID	1	3 (2 not EFNEP)
Illinois–IL	1	3
Indiana-IN	1	3
Iowa–IA	1	1
Kansas-KS	1	--
Kentucky–KY	1	2
Louisiana-LA	1	--
Maine–ME	3	--
Maryland-MD	1	--
Massachusetts-MA	2	–
Michigan-MI	1	--
Minnesota–MN	1	--
Mississippi–MS	1	--
Missouri-MO	1	--
Montana–MT	1	3
Nebraska–NE	1	2
Nevada–NV	1	3
New Hampshire-NH	1	--
New Jersey-NJ	1	–
New Mexico-NM	1	3
New York-NY	2	--
North Carolina-NC	2	3
North Dakota–ND	1	--
Ohio–OH	1	--
Oklahoma	0	0
Oregon–OR	1	--
Pennsylvania-PA	1	--
Rhode Island–RI	1	--
South Carolina-SC	1	--

[1]Double dashes mean the states were not represented.

Table 3. (Continued)

State	State professionals	County professionals
South Dakota-SD	1	3
Tennessee–TN	1	--
Texas–TX	1	--
Utah–UT	1	--
Vermont–VT	1	--
Virginia-VA	1	--
Washington-WA	1	--
West Virginia-WV	1	--
Wisconsin–WI	1	--
Wyoming-WY	1	3

Territories

American Samoa-AS	1	--
Guam-GU	2	--
Micronesia-FM	0	0
Northern Marianas-MP	1	--
Puerto Rico-PR	1	2
Virgin Islands-VI	1	--
Totals	60	41 (39 round 1 surveys sent)

[1]Double dashes mean the states were not represented.

CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this study was to identify the personal attributes and job competencies for job success of the EFNEP paraprofessional. The EFNEP professionals generated a list of the personal attributes and the job competencies the paraprofessional should possess in order to be successful on the job.

This chapter presents the findings and discussion of the research. The first section provides the demographic information of the respondents. The second section presents the characteristics generated by the professionals, and describes how the professional responses were compiled into a final listing of the characteristics. The third and last section presents the placement of the characteristics in a category. The tables of results appear at the end of the results section beginning on page 79.

Number of Respondents for each Round of the Delphi

After the recruitment letter was sent to the state professionals, 20 state professionals volunteered and presented 39 names and addresses of county professionals (Table 3). Of the 59 EFNEP professionals that were invited to participate in the study, responses were received from 14 state professionals and 23 county professionals (n=37).

One county survey was returned late and was not included in the data set thus giving a total usable response rate of 61% (36 returned out of 59) for all the professionals. The usable return rate for the state professionals was 70% (14 returned out of 20) and 56% (22 returned out of 39) for the county professionals. The states and territories and number of invited EFNEP professionals are summarized in Table 4.

Round 2 was mailed to 36 respondents. From the Delphi round 2 mailing 14 state coordinators and 21 county extension staff responded giving a total response rate of 97%. The return rate for the state professionals was 100% and the return rate for the county professionals was 95%.

Round 3 was mailed to 36 respondents. From the Delphi round 3 mailing, 13 state coordinators and 18 county and area extension staff responded, giving response rate of 86%. The return rate for the state professionals was 93% and the return rate for the county professionals was 82%.

Out of 49 states and 5 territories that were invited to participate only 19 states and 2 territories were represented (Tables 3 and 4). The data herein may not be projected to represent the total US.

Demographic Information of Respondents

Table 5 presents the demographic characteristics of the respondents. Out of the 36 professionals responding, the majority had a master's degree (69%), followed by doctoral degree (22%). The educational level of the state EFNEP professionals was equally divided between Master of Science and Doctoral degrees. The educational level for the

majority of the county EFNEP professionals was a Master of Science degree with a few having a Bachelor of Science or Doctoral degree. The majority (83%) of county professionals were white, but had representatives from the black and Hispanic groups. All of the respondents were female.

Table 6 presents program responsibilities. Fifty percent of the state professionals worked the majority of the time with the adult program and the other half divided their time equally between the adult and youth program. None of the state professionals worked full time with the adult or youth program alone. The responsibilities of the county professionals were such that the majority (59%) worked with adult programs and 36% divided their time equally between the youth and adult programs. One county professional did not respond to this question.

A description of the responsibilities of respondents for the state coordinators revealed 93% to have state responsibilities only (Table 6). The county professional responsibilities indicated 59% to be involved in county level work and 32% involved in regional level work. One county professional did not respond to this question.

Table 7 presents the annual full time equivalents (FTE) of paraprofessionals. The findings indicated that state level professionals reported greater paraprofessional FTE than that provided by the county level professionals. Two professionals (1 state and 1 county) did not provide information on the annual FTE.

In the same table (Table 7) the number of paraprofessionals hired per year is presented. Findings indicated a difference in the state and county responses on the number of paraprofessionals hired. The state level and county level professionals indicated the number of paraprofessionals hired as 17 and 4 per year, respectively. One

state respondent indicated that hiring was not applicable in her case, two county professionals indicated that hiring varied from one year to another, one reported that the staff were stable, and one did not respond. These results are partially explained by the fact that the state level professionals were probably responding for the whole state whereas the county professionals were responding for their county only.

Program participant information was requested from the professionals and is presented in Table 8. The state level professionals indicated a mean of 2,517 adults graduated and 9,391 youth were reached annually. County professionals indicated 328 adults graduated and 52,651 youth were reached in the EFNEP program. The findings indicated that more youth were reached than adults. This was also true according to the FY97 participant profiles, where more youth than adults were enrolled, 392,474 and 204,049, respectively (S. Montgomery, personal communication, 09/15/1998). Almost all of the youth programming is conducted via school classrooms or 4-H clubs while adult programs are conducted via a combination of individual instruction in a home or group education at meeting places outside the home. This can partially explain the larger number of youth reached.

The percent of time paraprofessionals spent in teaching groups or individuals is presented in Table 9. The state level respondents estimated that 36% of the time was spent on individual instruction and 40% was spent on group instruction. The county professionals indicated that 46% of paraprofessional time was spent in individual instruction and 51% was spent in group instruction. One county professional did not respond to this question.

The findings indicated that similar amounts of time were spent in group instruction

and individual instruction and indicate a move towards more group education compared to the earlier years of EFNEP. Based on the literature, one-to-one education was the method of teaching employed during the first ten years of EFNEP (Chipman and Kendall, 1989). In 1979, group instruction was recommended over the individual instruction because group instruction was cost effective (Chipman and Kendall, 1989) and developed social skills that permitted the sharing of nutrition knowledge among the participants (Leidenfrost 1986). In fact, group instruction increased from 9% to 37% between FY84 and FY87 (Chipman and Kendall, 1989). It would appear EFNEP is still moving towards increasing the time spent in group instruction as indicated by the county professionals' response shown in Table 9.

Objective 1

To achieve this objective, the time provided for the initial training of paraprofessionals was requested of the professionals and is presented in Table 9. According to state and county level professionals either an average of 82 hours or 73 hours, respectively was provided during the initial training. One state professional responded that initial training took 2 months. One county professional stated 16 days, a figure similar to that recommended by USDA (USDA, EFNEP, 1986). Two county professionals did not respond.

It is interesting to note that the state and county respondents provided similar responses for the initial training (Table 9). The hours however, were different from those recommended by the EFNEP guidelines (15 days or 120 hours) (USDA, EFNEP, 1986).

According to the present study, as few as 18 hours and as many as 300 hours were spent in initial training. The results showed variability in the time provided for the initial training. The interpretation of this data is not possible because the state and the county professionals were not asked to report this information for the state or for the county level. Thus the professionals could have reported hours for the state, or the county or both. This raises the question as to how many hours were required to adequately train newly hired paraprofessionals or that training is conducted both at the county level and at the state level. For example, did paraprofessionals come in with poor reading and writing skills and thus needed more time to train, a question posed by Henderson (1992).

Table 10 shows the frequency of responses to the list of initial training topics included in the round 1 questionnaire. All of the state level professionals indicated that the topics of nutrition, food safety, food guide pyramid, food preparation, how to conduct a 24-hour food recall, group work, group education, personal safety skills, how to keep records, and how to make referrals were taught during the initial training. Over 90% of the state professionals indicated food storage, how to plan meals, food intake, individual education, how to recruit participants, and how to work with agencies were taught during the initial training. Less than 50% of the state level professionals indicated food preservation, use and care of equipment, and how to manage a garden were taught during the initial training.

All of the county level professionals indicated that initial training of the EFNEP paraprofessionals included nutrition, food safety, food guide pyramid, and how to keep records. Ninety percent or more of the county level professionals indicated food preparation, how to conduct the 24-hour food recall, how to plan meals, food storage,

how to recruit participants, food selection, food intake, and food labels were topics taught during the initial training. Less than 50% of the county level professionals indicated child abuse identification, interpersonal skills, nutrition and chronic disease, how to set goals, use and care of equipment, food preservation, and how to keep a garden as topics taught during the initial training. Overall, the findings indicated all of the topics provided in the round 1 questionnaire were included in the initial training.

A comparison between the initial training topics and the ERIB curriculum content (Oklahoma State University, 1995) show agreement in these areas: food safety, food guide pyramid, meal planning, food labels, food selection, and nutrition in pregnancy. An introductory topic in ERIB is the use and care of equipment. This topic was mentioned by less than 45% of the respondents as included in initial training. Money management and weight management were listed by fewer than 70% of the professionals as included in the initial training and are topics included in the ERIB curriculum. The topics of nutrition and chronic disease, preserving food, and gardening are not in the ERIB curriculum (Oklahoma State University, 1995) and were indicated by less than 50% of the professionals as included in the initial training. It appears that the curriculum used may shape the initial training of the paraprofessionals. Chipman and Kendall (1989) reported that at least 42 states utilized the ERIB curriculum. The respondents in this study were not asked which curriculum they used.

Non-nutrition topics taught at initial training differed between the state and county professionals. The majority of state and county professionals indicated that group education, referring skills, educating individuals, being culturally sensitive, and having interpersonal skills were taught during initial training. Few professionals indicated that

how to set goals and ability to use a computer were generally taught during the initial

training. Findings indicated an inconsistency between what the state professionals and

the county professionals listed as topics generally taught during the initial training of the

EFNEP paraprofessionals.

Additional topics that were listed by the professionals were food habits, how adults

learn, lesson adaptation, how to prepare lessons, how to read maps, policy and procedure,

and how to teach adults. These responses may imply that these topics are necessary in

the initial training depending on the specific curriculum employed in various states, and

in relation to the respective needs of the paraprofessionals. The topics that were not

mentioned by more than two people were not listed in Table 10.

Objective 2

To meet this objective, three consecutive rounds of the Delphi were carried out. The

discussion of the findings based on the literature regarding this objective is presented

only after the third round.

Questionnaire Responses – Delphi Round 1

The findings from this research were based on the personal attributes and job

competencies that EFNEP professionals perceived to be important for job success of

EFNEP paraprofessionals. The items the respondents generated during round 1 appear

alphabetically in Tables 11, 12, and 13. The round 1 questionnaire generated 131 items

after analysis, editing, and combining statements. There were 49 personal attributes, 42 job competencies prior to hire, and 40 job competencies after training.

The round 1 questionnaire generated personal attributes for job success of EFNEP paraprofessionals by responses to the first question "What PERSONAL ATTRIBUTES do you think a paraprofessional in nutrition education should have before being hired (Table 11)? For each personal attribute, provide a reason you think this attribute is important and desirable for a paraprofessional to possess." After editing and compiling, a total of 49 characteristics made up the personal attributes list. During the development of the personal attributes table for the round 2 questionnaire, two items were accidentally omitted, "previous work experience" and "value or desire education," making 47 items on Delphi round 2.

The round 1 questionnaire also asked "What JOB COMPETENCIES do you think a paraprofessional in nutrition education should have BEFORE being hired (Table 12)? For each job competency, provide a reason you think the competency is important and desirable for a paraprofessional to possess." After editing and compiling, a total of 42 characteristics made up the job competencies before hire list. The results of the job competencies before hire generated by the professionals are presented in alphabetical order in Table 12. "Interest in food and nutrition" was accidentally omitted, leaving 41 items.

The round 1 questionnaire also asked "What JOB COMPETENCIES do you think a paraprofessional in nutrition education should have AFTER completing an orientation in-service and before working with EFNEP participants (Table 13)? For each job competency, provide a reason you think the competency is important and desirable for a

67

paraprofessional to possess." After editing and compiling, 40 characteristics made up the job competencies after hire list. During the development of the tables for the job competencies on the round 2 survey, "conduct a 24-hour food recall" and "life long learning" were accidentally omitted bringing the total number of items on round 2 to 38.

Objective 3

To meet this objective, the respondents rated the list of personal attributes and job competencies generated during round 1 based on a 5-point scale during round 3. Based on the means calculated for each item, a rank was assigned from the highest to the lowest, i.e. from very important to not important.

Questionnaire Responses – Delphi Round 2

In round 2 the subjects that responded to the round 1 questionnaire were asked to rate the personal attributes or job competencies to determine the rank and list additional personal attributes and job competencies they felt were missing. No new attributes or competencies were submitted. Respondents were also asked to add comments for items they thought were not applicable. Tables 14, 15, and 16 present the results of the responses concerning the important personal attributes and job competencies for job success of EFNEP paraprofessionals.

The seven highest ranked personal attributes were: "dependable or reliable," "honest or trustworthy," "interpersonal or people skills," "self-starter or independent worker,"

"positive attitude," "non-judgmental," and "respectful" (Table 14). The lowest ranked personal attribute, "bilingual" was ranked with a mean of 2.11. Many attributes were considered important based on the mean scores of 3.5-4.49.

"Self-supporting" was determined to be neither an attribute nor a competency for job success according to the definition provided. It was excluded on the third round and determined a job requirement by the researchers. "Knowledge of community resources" and "basic knowledge of nutrition" were low in rank because they were not personal attributes and they were moved to the job competencies after initial training (Table 14).

The job competencies prior to hire that ranked highest were "teachable," "honest or trustworthy," "communication skills," "follows or takes directions," and "ability to work with people" (Table 15). "Bilingual" and "computer skills" were the lowest ranked items (Table 15). Many job competencies prior to hire were considered important (31) based on the mean scores of 3.5-4.49.

The job competencies after training that were ranked highest were "know and understand target area and audience," "communication skills," "knowledge of curriculum," "know rules to be an employee," "knowledge role and limitations of program," "adult teaching," and "interpersonal or people skills" (Table 16). The competency ranked lowest was "previous work experience" (Table 16). Many job competencies were considered important based on the mean scores of 3.5-4.49.

Round 2 findings indicated 7 personal attributes, none of the job competencies prior to hire and 7 job competencies after training to be very important. The respondents considered many characteristics to be important with a few considered to be moderately or slightly important. No characteristics were considered unimportant. Thus all the

personal attributes and job competencies were of importance to the job success of an EFNEP paraprofessional.

During the analysis of the round 2 responses some characteristics were determined to be neither personal attributes nor the job competencies. Others such as "phone and computer skills" that were combined were listed as separate items.

Table 17 presents the comments provided by the respondents to round 2. Based on these comments and decisions made by the researchers, adjustments were made to the personal attributes and job competency lists to create the round 3 questionnaire. The characteristics in Tables 14, 15, and 16 that were eliminated from the third round were: "the ability to read a map," "driving car skills," "education competence or qualification," "possession of a social security card," "self-supporting," and "previous work experience." The researchers classified these items under job requirements. The above listed characteristics were among the items that were ranked lowest on round 2, indicating their low relative importance for job success.

The characteristics that were regrouped based on the respondents' comments, definition of attribute or competency, or changed due to researcher prerogative included "honest or trustworthy," "confidentiality," "desire to learn," "respectful," "flexible or adaptable," "interest in helping people," "strong work ethic," "physically able," "empathetic," "encouraging," "compassionate," "self-confident," "indigenous quality," "well-groomed," and "bilingual" which, were moved from the competency items to the list of personal attributes. "Listening skills," "communication skills," "knowledge of community resources," and "basic knowledge of nutrition" were moved from the list of personal attributes to the appropriate job competency prior to hire or after training.

"Phone and computer skills" and "listening and questioning skills" were listed as separate items. The respondents indicated phone skills were important and computer skills were not important on the job.

Questionnaire Responses – Delphi Round 3

Responses to the round 3 are in Tables 18, 19, and 20. Additions to the round 3 questionnaire after the round 2 analysis included "interpret the results of the 24-hour food recalls," "make initial and follow-up home visits to families," "bridge participant culture and that of the professional," "ability and willingness to accept directions and suggestions from supervisor" and "decide when to conclude a teaching session and graduate learner based on the learners capability" (Table 20). The items that were accidentally omitted on round 2 were returned on round 3 depending on whether they were personal attributes or job competencies. Thus the items totaled 37 personal attributes, 18 job competencies prior to hire, and 43 job competencies after training (Tables 18, 19, and 20).

On the third round the opinion of the respondents was sought concerning the changes made. No input was received concerning the items eliminated and this was interpreted to mean that the respondents recognized and approved of the changes made to the items. The respondents re-rated the characteristics and they were again asked to add items that were important for the success of paraprofessionals. The rank and mean scores were recalculated based on the responses to the round 3 questionnaire.

Again, the top three ranked personal attributes were "dependable or reliable," "honest or trustworthy," and "interpersonal or people skills" (Table 18). The three items

were determined to be very important. "Bilingual" was again ranked lowest and was determined to be moderately important.

"Ability to work with people" was ranked the number one job competency prior to hire with an improved mean score of 4.71 and was determined to be very important (Table 19). "Basic math skills" was ranked lowest of the job competencies prior to hire and was determined to be moderately important.

"Know and understand target area and audience," "communication skills," "knowledge of curriculum," "interpersonal skills or people skills," and "ability to conduct a 24-hour food recall" were ranked the top five job competencies after training (Table 20). The five items were determined to be very important. "Computer skills" and "comprehend research" were ranked lowest and were determined to be slightly important (Table 20). Several respondents commented that their paraprofessionals did not use computers for data entry and they did not train them to use the computers. "Comprehend research" was not expected of the paraprofessional because such a competency took several years of training to achieve.

The majority of the items on round 3 were grouped between the mean score of 3.52 and 4.49. Findings indicated that most of the items were ranked highly and were therefore important for job success of the paraprofessionals. The respondents considered 3 personal attributes as very important and 28 attributes as important for the job success of the paraprofessionals. One job competency prior to hire was considered very important and 14 competencies were considered important. Five job competencies after training were indicated to be very important for job success, 6 were important, and 30 were moderately important. Overall, there were no personal attributes or job

competencies that scored not important.

Table 21 presents the comparisons between round 2 and 3 of the personal attributes. The personal attributes means did not vary greatly on either round. Tables 22 and 23 show a similar trend in that on round 2 and 3 the means for the competencies did not vary much. This indicated that the professionals were in agreement about the personal attributes and job competencies important for success.

Personal attributes discovered in the present study were similar to personal attributes found in previous research. The 19 characteristics used in the study by Iscan and Nelson (1977) were: ability to express, alertness, appearance, attitude about learning, clarity of thinking, cooperative effort, ability to relate with people, judgment, enthusiasm, conversational ability, ability to grasp information, attitude about self, emotional balance, inner drive, interest, perseverance, planning ability, poise and attitude toward self. Among the 19 characteristics studied by Iscan and Nelson (1977) ability to relate to people and attitude towards others were ranked among the first five in the present study. These interpersonal skills were consistently ranked highly in the present study. Appearance (herein well-groomed), interest (herein defined as interest in helping people, interest in food and nutrition), inner drive (herein self-starter or independent worker) and perseverance (herein persistent) were attributes that Iscan and Nelson (1977) indicated as determining the success of paraprofessionals and were considered important in the present study.

The Iscan and Nelson (1977) study had the most extensive list of attributes and competencies relating to paraprofessional success. In the present study, only 12 identified personal attributes were similar to characteristics indicated by Iscan and Nelson

73

(1977).

Respect, sincerity, warmth (herein friendly) were attributes recommended by the
EFNEP for hiring paraprofessionals (Giblin, 1989; Leidenfrost, 1986). Giblin (1989)
indicated warmth (herein friendly) and desire to help others (herein interest in helping
people) to positively influence participant behavior and thus reflected paraprofessional
success. In the present study respectful, sincere, friendly, interest in helping people were
highly ranked by mean scores of 4 and above.

Santopolo and Kell (1976) reported positive attitude, persuasive, self-confident and
concerned (herein empathy, compassionate) as important for success. In the present
study, these same attributes presented by Santopolo and Kell (1976) were considered
important to very important for job success of paraprofessionals.

Empathy, flexibility, and compassion were recommended by Spindler, Jacobson, and
Rusell (1969) while Shafer (1984) recommended creativity and perseverance to be
important for a paraprofessional. Again these same attributes were determined to be
important for job success in the present study.

The present study generated new personal attributes not found in the literature. The
attributes were dependable or reliable, non-judgmental, interest in food and nutrition,
ability to work with a diverse audience, strong work ethic, encouraging, sound health or
physically able, patience, empowerment, a sense of humor, self-betterment and
courageous.

Henderson (1992) highlighted the importance of "bilingual" paraprofessionals as
very important in non-English speaking communities who were racially and ethnically
diverse. The results of the present study indicated that "bilingual" was not important.

"Bilingual" received a mean of 2.5 on round 3. This was not because it was not considered important but because the respondents surveyed did not have audiences who were non-English speakers. The comments this item received were that it was very important where clientele were non-English speaking and not important if the clientele could speak English.

"Indigenous quality" was perceived as slightly important in the 1960s and was perceived to build rapport if the paraprofessionals resided in the community they worked (Spindler, Jacobson, and Russell, 1969). In the present study, this attribute was considered to be moderately important.

Overall, the personal attributes on round 2 and 3 that were highly ranked due to high mean scores indicated their importance towards the job success of paraprofessionals. None of the items were considered to be unimportant for the job success of the paraprofessionals.

A review of the literature did not reveal any studies that studied job competencies prior to hire (Table 19). The present study may be one of the few that looked at important competencies a paraprofessional should have before hire. The EFNEP guidelines indicated qualities to look for when hiring paraprofessionals (Leidenfrost, 1986) and the literature discusses competencies that enhance changes in the participant's behavior and thus predict the success of a paraprofessional on the job.

There were no specific studies other than that of Yerka (1974) and Spindler, Jacobson, and Russell (1969) that determined the competencies that predict job success. The job competencies revealed in the literature and generated in the present study included understanding the purpose of the program, communicating with others,

recruiting skills, referring skills, record keeping skills, understanding rules, following oral instructions and meeting and working with individual and groups (Leidenfrost, 1986); reading, writing reports, understanding teaching materials (Spindler, Jacobson, and Russell, 1969); knowing about teaching and learning strategies (Yerka, 1974); following participants, knowing about food and nutrition (Chiza-Muyengwa and Ebert, 1991); and knowing about community resources (Giblin, 1989).

Competencies generated in the present study that were called knowledge of teaching in previous literature included adult teaching, the use of varied teaching methods, the use of facilitative education (not well defined in the present study), and comprehend research (Yerka, 1974; Spindler, Jacobson, and Russell, 1969).

In the present study, punctual or timely, creative or innovative, team player, and non-judgmental were characteristics that were presented as attributes and as competencies. These characteristics were consistently indicated to be important for job success. This implies that there is some confusion as to whether these characteristics are personal attributes or a job competency that can be learned.

A comparison of the topics taught in initial training and the job competencies after training showed that the knowledge of the curriculum content regarding nutrition was in agreement with the topics taught. Other job competencies that were scored highly and were deemed very important and important but were not provided in the initial training included knowing the role and limitation of program or agency, basic teaching skills, adult teaching skills, group teaching skills, organizing skills, and knowing how to interpret the results of the 24-hour food recall. The respondents were not asked to indicate the topics taught during in-service training after initial training was completed.

Objective 4

Placement in Categories of Job Competencies

To meet this objective the job competencies that were generated during round 3 were categorized into communications skills, interpersonal skills, knowledge, organizational skills, teaching skills, and other (Tables 24 and 25).

The job competencies prior to hire that were categorized by the respondents are shown in Table 24. "Read and write well" was categorized as a communication skill by 48% of the respondents, as well as knowledge by 35% of the respondents. "Follows or takes direction" was categorized as an interpersonal skill by 32% of the respondents, but also as an organizational skill by 29%, and communication skill by 18% of the respondents. "Ability to solve problems" was categorized as a teaching skill by 46%, as knowledge by 32%, and as other by 21% of the respondents. "Creative or innovative" was categorized as a teaching skill by 35% and as other by 23% of the respondents. "Teachable" was categorized as knowledge by 27% of the respondents.

Competencies after training that were classified by the respondents are presented in Table 25. Less than 50% of the respondents placed "read and write well," "ability to solve problems," "make initial and follow-up visits to families," "creative or innovative," and "ability to conduct a 24-hour food recall" in the respective categories. Under the category of communication skills, "recruitment skills" was categorized by 41% of the respondents as a communication skill and as an "interpersonal/people skill" by a 25% of the respondents. All these competencies were placed in more than one category resulting

in low frequencies. It is interesting to note that "read and write well" was categorized by 59% of the respondents as a communication skill and by 34% respondents as knowledge. Findings indicated that there might be some confusion as to the placement of the competencies into categories.

Table 4. Total number of state and county and area EFNEP professionals that
volunteered.

State	State professionals (coordinators)	County professionals (educators)
Arizona	1	0
Colorado	0	0
Connecticut	1	3
Delaware	1	0
Florida	1	0
Idaho	1	1
Illinois	1	0
Indiana	1	3
Iowa	1	1
Kentucky	1	2
Montana	1	2
Nebraska	1	1
Nevada	1	1
New Mexico	1	1
New York	1	0
South Carolina (Clemson)	1	2
South Dakota	1	3
Texas	1	0
Wyoming	1	2
Guam	1	0
Puerto Rico	1	1 (returned late)
Total	20	23 (22 sent Round 2)

Table 5. Demographic characteristics of state and county EFNEP professionals.

Characteristics of professionals	State responses N=14		County responses N=22	
	N	%	N	%
Education level:				
College Graduate-BA/BS		0	3	14
Graduate Degree-MS	7	50	18	82
Graduate Degree-Ph.D/EdD	7	50	1	5
Gender:				
Female	14	100	22	100
Race:				
White	14	100	16	73
Black	0	0	5	23
Other	0	0	1	5
Hispanic	0	0	2	9
Non-Hispanic	14	100	20	91
		Mean ± SD		Mean ± SD
Age (years)		46 ± 7		44 ± 6
Range		37-58		28-52

Table 6. Program responsibilities of EFNEP professionals.

Program responsibilities of professionals	State responses N=14		County responses N=22	
	N	%	N	%
Professional responsibilities:				
Majority of time with adult program	7	50	13	59
Time equally divided between the adult and youth program	7	50	8	36
Description of responsibilities as EFNEP professional:				
County responsibility	1	7	13	59
Regional responsibility	0	0	7	32
State level responsibility	13	93	1	5

Table 7. Number of EFNEP paraprofessionals' annual FTE.

Paraprofessional information	State responses N=14	County responses N=22
	Mean ± SD	Mean ± SD
Total FTE of paraprofessional in the program (FTE)	24.0 ± 25.5	6.9 ± 9.7
Range (FTE)	6.3 - 86.4	0.75 - 37
	Mean ± SD	Mean ± SD
Number of paraprofessional hired/year (number)	16.6 ± 44	3.8 ± 4.8
Range (number)	0 - 120	0 - 30

Table 8. Number of adults graduated and number of youths reached annually.

Total number of adults and youths graduated and reached respectively.	State responses N=14	County responses N=22
	Mean ± SD	Mean ± SD
Total number of adults graduated per/year (number)	2,517 ± 4,924	328 ± 303
Range (number)	83 – 17,634	5 – 1,000
	Mean ± SD	Mean ± SD
Total number of youth reached/year (number)	9,391 ± 12,443	52,651 ± 3,923
Range (number)	200 – 36,133	100 – 15,000

Table 9. Percent time spent in one-to-one and group instruction by paraprofessionals and hours spent on initial training.

Mode of training and time spent in initial training	State responses N=14	County responses N=22
	Mean ± SD	Mean ± SD
Percent of time paraprofessionals spend in one-on-one education (%)	36 ± 27	46 ± 27
Range (%)	0 - 100	2 - 90
	Mean ± SD	Mean ± SD
Percent of time paraprofessionals spend in group instruction (%)	40 ± 34	51 ± 27
Range (%)	0 - 100	2 - 90
	Mean ± SD	Mean ± SD
Time provided for initial training of paraprofessionals (hours)	82 ± 34	73 ± 68
Range (hours)	20 – 120	18 – 300

Table 10. Topics taught to EFNEP paraprofessionals during the initial training.

Topics taught during initial training	State responses N=14	County responses N=22
	%	%
1. Nutrition	100	100
2. Food safety	100	100
3. Food guide pyramid	100	100
4. Food preparation	100	95
5. Conducting 24 hr food recall	100	95
6. Working with groups	100	83
7. Educating groups	100	58
8. Personal safety skills	100	80
9. Record keeping	100	100
10. Referral skills	100	55
11. Meal planning	92	95
12. Food storage	92	95
13. Food intake	92	90
14. Educating individuals	92	53
15. Recruiting participants	92	95
16. Working with agencies	92	80
17. Food selection	83	95
18. Food labels	83	90
19. Nutrition during pregnancy	83	80

Table 10. (Continued).

Topics taught during initial training	State responses N=14	County responses N=22
	%	%
20. Infant nutrition	83	75
21. Cultural sensitivity	75	55
22. Money management	67	60
23. Time management	67	75
24. Interpersonal skills	67	40
25. Being a team member	67	50
26. Weight management	50	55
27. Nutrition and chronic disease	50	35
28. Child abuse identification	50	45
29. Goal setting skills	50	35
30. Use of computer	50	50
31. Food preservation	46	25
32. Use and care of equipment	42	35
33. Gardening	21	25

Table 11. Personal attributes of EFNEP paraprofessionals: Delphi Round 1.

Basic knowledge of nutrition	Interest in helping people
Bilingual	Interpersonal/good people skills
Communication skills	Organizational skills
Compassionate	Listening skills
Courageous	Loyal
Creative/innovative	Non-judgmental
Credible	Open-minded
Cultural awareness	Knowledge of community resources
Dependable/reliable	Patience
Empathetic	Persuasive abilities
Empowerment	Positive attitude
Encouraging	Positive role model
Experience and ability working with adults/youth/children	Previous work experience
Experience running a household	Problem solving skills
Flexible/adaptable	Punctual/timely
Firm/persistence	Respectful
Friendly	Self-confidence
Honesty/trustworthy	Self-betterment
Indigenous quality	Self-starter/independent worker
Interest in food, health, & nutrition	Self-supporting

Table 11. (Continued).

Sense of humor	Team player
Sincere	Value education
Sound health	Well-groomed
Strong work ethic	Work with diverse audience

Table 12. Job competencies prior to hire of EFNEP paraprofessionals: Delphi Round 1.

Ability to work with people	Interest in helping people
Basic knowledge of food and nutrition	Knowledge of community resources
Basic math skills	Knowledge of role and limitation of program/agency
Bilingual	Know and understand target area & audience
Communication skills	Know rules as an employee
Compassionate	Listening and questioning skills
Computer skills	Organizational skills
Confidentiality	Physically able
Creative/innovative	Positive attitude
Desire to learn	Previous work experience
Driving car skills	Problem solving skills
Education competence/qualification	Punctual/timely
Empathetic	Read and write well
Encouraging	Record keeping skills
Experience and ability working with adults/youth/children	Recruitment skills
Flexible/adaptable	Respectful
Follows/takes directions	Self-confident
Honesty/trustworthy	Self-starter/independent worker
Indigenous	Strong work ethic
Interest in food and nutrition	Teachable
Team player	Work with diverse audience

Table 13. Job competencies after training of EFNEP paraprofessionals: Delphi Round 1

Adult teaching	Map reading
Application of varied teaching methods	Non-judgmental
Basic math skills	One-to-one teaching skills
Basic teaching skills	Organizational skills
Comprehend research	Personal safety skills
Communication skills	Positive attitude
Computer and phone skills	Previous work experience
Conduct a 24hr food recall	Problem solving
Driving skills	Punctual/timely
Flexible/adaptable	Read and write well
Goal setting	Record keeping skills
Group teaching skills	Recruitment skills
Interest in food and nutrition	Reporting skills
Interpersonal/people skills	Self-confidence
Knowledge of community resources	Self-starter/ independent
Knowledge of curriculum	Teaching skills
Know and understand target area and audience	Team player
Knowledge of role and limitation of program/agency	Understand and use facilitative education
Knowledge of rules to be an employee	Use and care of office equipment
Well-groomed	Work with diverse audience

Table 14. Mean scores and ranking by importance of personal attributes: Delphi Round 2.

Personal attributes	Total	Mean score	Rank
Dependable/reliable	163	4.79	1
Honest/trustworthy	162	4.76	2
Interpersonal/good people skills[1]	163	4.66	3
Self-starter/independent worker	160	4.57	4
Positive attitude	159	4.54	5
Non-judgmental	159	4.54	5
Respectful	158	4.51	7
Open-minded	157	4.49	8
Listening skills[1]	153	4.37	9
Communication skills[1]	153	4.37	9
Flexible/adaptable	148	4.35	11
Team player	152	4.34	12
Interest in health, food & nutrition	152	4.34	12
Friendly	147	4.32	14
Interest in helping people	150	4.29	15
Credible	149	4.26	16
Strong work ethic	148	4.23	17
Cultural awareness	147	4.20	18
Empathetic	142	4.18	19
Sincere	146	4.17	20

[1]Personal attributes that were considered to be job competencies.
[2]Statements that were not attributes or competencies and became job requirements.
[3]Statements that were considered to not be a personal attribute or a job competency.

Table 14. (Continued).

Personal attributes	Total	Mean score	Rank
Punctual/timely	145	4.14	21
Positive role model	145	4.14	21
Encouraging	140	4.12	23
Patience	141	4.03	24
Compassionate	140	4.00	25
Empowerment	134	3.94	26
Self-confidence	137	3.91	27
Problem solving skills[1]	136	3.89	28
Loyal	135	3.86	29
Work with diverse audience	135	3.86	29
Creative/innovative	133	3.80	31
Sound health	132	3.77	32
Organizational skills[1]	131	3.74	33
Well-groomed	131	3.72	34
Self-betterment	128	3.67	35
Sense of humor	125	3.57	36
Social security card[2]	121	3.56	37
Experience running a household[3]	120	3.53	38
Persuasive abilities	124	3.54	39
Experience and ability working with adults/youth/children[1]	120	3.53	40

[1]Personal attributes that were considered to be job competencies.
[2]Statements that were not attributes or competencies and became job requirements.
[3]Statements that were considered to not be a personal attribute or a job competency.

Table 14. (Continued).

Personal attributes	Total	Mean score	Rank
Firm/persistent	120	3.53	40
Courageous	122	3.49	42
Indigenous quality	116	3.31	43
Knowledge of community resources[1]	112	3.29	44
Basic knowledge of nutrition[1]	107	3.06	45
Self-supporting[2]	105	3.00	46
Bilingual	74	2.11	47

[1]Personal attributes that were considered to be job competencies.
[2]Statements that were not attributes or competencies and became job requirements.
[3]Statements that were considered to not be a personal attribute or a job competency.

Table 15. Mean scores and ranking by importance of job competencies prior to hire: Delphi Round 2.

Job competency prior to hire	Total	Mean score	Rank
Teachable	151	4.44	1
Honest/Trustworthy[1]	153	4.37	2
Communication Skills	152	4.34	3
Follows/takes direction	152	4.34	3
Ability to work with people	147	4.32	5
Driving car skills[2]	150	4.29	6
Confidentiality[1]	148	4.23	7
Desire to learn [1]	145	4.12	8
Team Player	142	4.06	9
Punctual/timely	141	4.03	10
Self-starter/independent worker[1]	140	4.00	11
Positive attitude[1]	139	3.97	12
Respectful[1]	139	3.97	12
Flexible/adaptable[1]	139	3.97	13
Interest in helping people[1]	137	3.91	15
Strong work ethic[1]	135	3.86	16
Read and write well	133	3.80	17
Problem solving skills[3]	133	3.80	17
Record keeping skills[3]	132	3.77	19
Physically able[1]	132	3.77	19

[1]Competencies that were considered to be personal attributes.
[2]Statements that were considered to not be a personal attribute or a job competency.
[3]Statements that were considered to be competencies after training.

Table 15. (Continued).

Job competency prior to hire	Total	Mean score	Rank
Empathetic[1]	128	3.76	21
Organizational skills	130	3.71	22
Education competence/qualification[2]	130	3.71	22
Encouraging[1]	130	3.71	22
Listening and questioning skills[3]	129	3.69	25
Compassionate[1]	128	3.66	26
Self-confident[1]	127	3.63	27
Work with diverse audience	127	3.63	27
Experience and ability working with adults/youth/children	127	3.63	27
Creative/innovative	124	3.54	30
Recruitment skills[3]	122	3.49	31
Know and understand target area and audience	121	3.46	32
Knowledge of community resources	117	3.34	33
Basic math skills	114	3.26	34
Basic knowledge of food and nutrition[3]	111	3.17	35
Indigenous[1]	110	3.14	36
Previous work experience[2]	110	3.14	36
Knowledge of role and limitations of program	102	2.91	38
Know rules as an employee[3]	94	2.69	39
Bilingual[1]	84	2.47	40
Computer skills[3]	79	2.26	41

[1]Competencies that were considered to be personal attributes.
[2]Statements that were considered to not be a personal attribute or a job competency.
[3]Statements that were considered to be competencies after training.

Table 16. Mean scores and ranking by importance of job competencies after training: Delphi Round 2.

Job competencies after training	Total	Mean score	Rank
Know and understand target area and audience	167	4.77	1
Communication skills	166	4.74	2
Knowledge of curriculum	163	4.66	3
Knowledge of rules to be an employee	161	4.60	4
Knowledge of role and limitation of program/agency	160	4.57	5
Adult teaching	156	4.56	6
Interpersonal/people skills	156	4.56	6
Teaching skills	157	4.49	8
Knowledge of community resources	156	4.46	9
Basic teaching skills	156	4.46	9
Application of varied teaching methods	155	4.43	11
Recruitment skills	155	4.43	11
Team player	152	4.34	13
One-to-one teaching skills	151	4.31	14
Personal safety skills	150	4.29	15
Group teaching skills	149	4.26	16
Record keeping skills	149	4.26	16
Work with diverse audience	149	4.26	16
Reporting skills	148	4.23	19
Organizational skills	148	4.23	19

[1]Statements that were considered to be personal attributes.
[2]Statements that were separated.
[3]Statements that were considered to not be a personal attribute or a job competency.

Table 16 (Continued).

Job competencies after training	Total	Mean score	Rank
Interest in food and nutrition	147	4.20	21
Goal setting	147	4.20	21
Punctual/timely	147	4.20	21
Non-judgmental	143	4.09	24
Problem solving	143	4.09	24
Flexible/adaptable	142	4.06	26
Driving skills	141	4.03	27
Positive attitude	138	3.94	28
Self-starter/ independent[1]	138	3.94	29
Use and care of office equipment	137	3.91	30
Understand and use facilitative education	120	3.75	31
Self-confidence	131	3.74	32
Well-groomed[1]	130	3.71	33
Basic math skills	130	3.71	33
Read and write well	129	3.69	36
Computer and phone skills[2]	119	3.40	36
Map reading[3]	114	3.26	37
Previous work experience[3]	95	2.71	38

[1]Statements that were considered to be personal attributes.
[2]Statements that were separated.
[3]Statements that were considered to not be a personal attribute or a job competency.

Table 17. Comments made by the respondents: Delphi Round 2.

Personal attribute	Comments
Basic knowledge of nutrition	A competency
Social security card	Can apply for one Not an attribute
Bilingual	Not necessary for all paraprofessionals to be bilingual. May be important for some, not important for others. Really depends upon the population with whom the paraprofessional will be working Not in Montana as some other states except a few reservations Competency, important either 5 if needed or 1 if not needed.
Courageous	We do not recruit in areas which are unsafe
Work with diverse audience	Can be acquired Not an attribute Attribute would be nonjudgmental, open-minded, respectful, unprejudicial, etc.
Experience and ability working with adults, youth and children	Job competency Can be learned
Knowledge of community resources	Job competency
Compassionate	Empathy not sympathy
Communication skills	Could be improved with training Some is attribute, some is competency
Creative	Can develop on the job but some is innate
Credible	Can develop on the job
Cultural awareness	Can be learned
Empowerment	Can be learned to a point
Interpersonal skills	Can be developed-innate vs. learned
Listening skills	As other communication Some is attribute, some is competency

Table 17. (Continued).

Personal attribute	Comments
Organizational skills	Competency
Problem solving skills	Attribute and competency
Well-groomed	Of course 'clean' and 'neat'
Self-supporting	I was not sure whether this meant economically or emotionally

Job competencies prior to hire	Comments
Know rules as an employee	Would not know prior to hire
Desire to learn	Not a competency
Bilingual	For some situations, not all Only if potential participants are non-English speaking Depends on audience to be reached as to level of importance 5 if needed, 1 if not needed
Ability to work with people	willing to work with people may not have had opportunity to do so
Basic knowledge of food and nutrition	it may be easier to teach new than to "unteach" and "re-teach"
Computer skills	Can be learned
Driving car skills	If paraprofessionals need to drive on the job, here paraprofessionals use public transport Not important All paraprofessionals drive to lessons here
Education competence	Need to meet minimum standards GED or high school required by university

Table 17. (Continued).

Job competencies after training	Comments
Experience and ability working with adults, youth and children	Can be learned
Computer and phone skills	May take time to be proficient
Driving car skills	If needed to do the job All nutrition assistants must drive Their skill level is not questioned or ability to use public transportation There was no definition for this, I'm not sure what it means
Map reading	May depend on the defined target area
Previous work experience	May be first employment opportunity
Understand and use facilitative education	Some professionals lack this ability We don't use the term
Flexible	Attribute
Interpersonal/people skills	Personal attribute
Interest in food and nutrition	Personal attribute
Nonjudgmental	Personal attribute- some may be learned as a skill
Positive attitude	Personal attribute
Phone and computer skills	Phone 5 computer 2 These are very different skills
Punctual	Personal attribute
Self-confident	Personal attribute
Self-starter	Personal attribute
Reporting skills	Mainly used by experienced staff or agent not entry level paraprofessionals except 24 hr recall reports
Team player	Personal attribute

Table 17. (Continued).

Job competencies after training	Comments
Work with diverse audience	Personal attribute
Comprehend research	I think this would come only after several years of experience and training and mentoring by the agent or program leader.
Desire to learn	Personal attribute
Empathetic	Personal attribute
Encouraging	Personal attribute
Flexible	Personal attribute
Honesty	Personal attribute
Indigenous	Personal attribute
Interest in helping people	Personal attribute
Creative	Personal attribute Combination of competency and attribute
Know rules to be an employee	After training to "know rules" are important- a competency
Know role and limitation of program	Can be learned, learned on the job
Confidentiality	Personal attribute
Work with diverse audience	After training
Compassionate	Personal attribute Persons basic personality cannot be learned
Driving car skills	Ability to use public transportation
Interest in helping people	Personal attribute
Know community resources	Can be learned, knowledge is helpful
Listening and questioning skills	Personal attribute
Positive attitude	Personal attribute
Punctual	Personal attribute

Table 17. (Continued).

Job competencies after training	Comments
Physically able	Personal attribute We make modification
Respectful	Personal attribute
Self-confident	Personal attribute
Self-starter	Personal attribute
Strong work ethic	Personal attribute
Teachable	Personal attribute
Team player	Personal attribute Combination of attribute and competency
Work with diverse audience	Personal attribute
Experience and ability working with adults, youth and children	Can be learned
Organizational skills	Can improve in experience. Personal attribute

Table 18. Mean scores and ranking by importance of personal attributes: Delphi Round 3.

Personal attribute	Total	Mean score	Rank
Dependable/reliable	168	4.94	1
Honest/trustworthy	165	4.85	2
Interpersonal/people Skills	161	4.74	3
Positive attitude	152	4.47	4
Self-starter/independent worker	151	4.44	5
Non-judgmental	151	4.44	6
Respectful	151	4.44	6
Ability to be confidential	148	4.35	8
Credible	148	4.35	8
Interest in helping people	147	4.32	10
Flexible/adaptable	146	4.29	11
Open-minded	146	4.29	11
Interest in health, food & nutrition	143	4.21	13
Ability to work with diverse audience	138	4.18	14
Friendly	141	4.15	15
Desire to learn /value education	135	4.09	16
Strong work ethic	135	4.09	16
Positive role model	134	4.06	18
Sincere	134	4.06	18
Encouraging	134	4.06	18
Self-confidence	128	3.88	21
Sound health or physically able	126	3.82	22

Table 18. (Continued).

Personal attribute	Total	Mean score	Rank
Patience	125	3.79	23
Empathetic	125	3.79	23
Empowerment	125	3.79	23
Cultural awareness	122	3.70	26
Loyal	121	3.67	27
Creative/innovative	121	3.67	27
Sense of humor	120	3.64	29
Persuasive abilities	119	3.61	30
Compassionate	119	3.61	30
Self-betterment	117	3.55	32
Well-groomed	114	3.45	33
Firm/persistent	112	3.40	34
Indigenous quality	108	3.38	35
Courageous	108	3.27	35
Bilingual	83	2.51	36

Table 19. Mean scores and ranking by importance of job competencies prior to hire: Delphi Round 3.

Job competency prior to hire	Total	Mean score	Rank
Ability to work with people	160	4.71	1
Ability to be taught/teachable	148	4.35	2
Communication skills	147	4.32	3
Listening skills	144	4.24	4
Follows/takes direction	142	4.18	5
Ability to be confidential	137	4.02	6
Team player	133	3.91	7
Ability to solve problems	133	3.91	7
Punctual/timely	132	3.88	9
Organizational skills	132	3.88	9
Ability to work with adults, youth, and children	127	3.85	11
Read and write well	127	3.73	12
Ability to work with diverse audience	120	3.64	13
Know and understand target area and audience	118	3.58	14
Creative/innovative	116	3.52	15
Phone skills	104	3.25	16
Knowledge of community resources	107	3.24	17
Basic math skills	103	3.22	18

Table 20. Mean scores and ranking by importance of job competencies after training: Delphi Round 3.

Job competency after training	Total	Mean score	Rank
Know and understand target area and audience	161	4.74	1
Communication skills	158	4.65	2
Knowledge of curriculum (Basic knowledge of subject matter)	157	4.62	3
Interpersonal/people skills	155	4.56	4
Ability to conduct 24hr food recall	149	4.52	5
Knowledge of role and limitation of program/agency	152	4.47	6
Knowledge of community resources	149	4.38	7
Listening skills	144	4.36	8
Knowledge of rules to be an employee	148	4.35	9
Basic teaching skills	148	4.35	9
Ability to recruit/recruitment skills	148	4.35	9
Record keeping skills	143	4.33	12
Adult teaching skills	144	4.24	13
Ability not to impart own belief system to participants	135	4.22	14
Group teaching skills	139	4.21	15
Ability to apply a variety of teaching methods	139	4.21	15
Non-judgmental	139	4.21	15
Make initial and follow-up home visits to families	126	4.19	18

Table 20. (Continued).

Job competency after training	Total	Mean score	Rank
Questioning skills	138	4.18	19
Reporting skills	137	4.15	20
Ability and willingness to accept directions and suggestions from supervisor	120	4.14	21
One-to-one teaching skills	138	4.12	22
Organizational skills	136	4.12	22
Personal safety skills	136	4.12	22
Flexible/adaptable	134	4.06	25
Ability to interpret the results of the 24 hr food recalls	130	4.06	26
Ability to work with diverse audience	133	4.03	27
Ability to set goals	132	4.00	28
Self-confidence/self-efficacy to be an educator	131	3.97	29
Understand and use facilitative education	131	3.97	29
Ability to bridge participant culture and that of professional	126	3.94	31
Punctual/timely	130	3.93	32
Team player	133	3.91	33
Ability to take care of office equipment and teaching materials	127	3.85	34
Positive attitude towards work	131	3.79	35
Ability to solve problems	127	3.79	35
Phone skills	122	3.70	37

Table 20. (Continued).

Job competency after training	Total	Mean score	Rank
Creative/innovative	121	3.67	38
Read and write well	118	3.58	39
Decide when to conclude a teaching session and graduate learner based on learners capability	100	3.57	40
Basic math skills	117	3.55	41
Computer skills	80	2.42	42
Comprehend research	79	2.39	43

Table 21. A comparison of Delphi Round 2 and Round 3 responses: Personal attributes.

Personal attribute	Mean score Round 2	Mean score Round 3
Dependable/reliable	4.79	4.94
Honest/trustworthy	4.76	4.85
Interpersonal/people Skills	4.66	4.74
Positive attitude	4.54	4.47
Self-starter/independent worker	4.57	4.44
Non-judgmental	4.54	4.44
Respectful	4.51	4.44
Ability to be confidential	$-^1$	4.35
Credible	4.26	4.35
Interest in helping people	4.29	4.32
Flexible/adaptable	4.35	4.29
Open-minded	4.49	4.29
Interest in health, food & nutrition	4.34	4.21
Ability to work with diverse audience	3.86	4.18
Friendly	4.32	4.15
Desire to learn /value education	--	4.09
Strong work ethic	4.23	4.09
Positive role model	--	4.06
Sincere	4.17	4.06
Encouraging	4.12	4.06
Self-confidence	3.91	3.88
Sound health or physically able	3.77	3.82

[1]Double dash denotes items that were not compared because of late addition.

Table 21. (Continued).

Personal attribute	Mean score Round 2	Mean score Round 3
Patience	4.03	3.79
Empathetic	4.18	3.79
Empowerment	3.94	3.79
Cultural awareness	4.20	3.70
Loyal	3.86	3.67
Creative/innovative	3.80	3.67
Sense of humor	3.57	3.64
Persuasive abilities	3.54	3.61
Compassionate	4.00	3.61
Self-betterment	3.67	3.55
Well-groomed	3.72	3.45
Firm/persistent	3.53	3.40
Indigenous quality	3.31	3.38
Courageous	3.49	3.27
Bilingual	2.11	2.51

Table 22. A comparison of Delphi Round 2 and Round 3 responses: Job competencies prior to hire.

Job competency prior to hire	Mean score Round 2	Mean score Round 3
Ability to work with people	4.32	4.71
Ability to be taught/teachable	4.44	4.35
Communication skills	4.34	4.32
Listening skills	--[1]	4.24
Follows/takes direction	4.34	4.18
Ability to be confidential	4.23	4.02
Team player	4.06	3.91
Ability to solve problems	3.80	3.91
Punctual/timely	4.03	3.88
Organizational skills	3.71	3.88
Ability to work with adults, youth, and children	3.63	3.85
Read and write well	3.8	3.73
Ability to work with diverse audience	3.63	3.64
Know and understand target area and audience	3.46	3.58
Creative/innovative	3.54	3.52
Phone skills	--	3.25
Knowledge of community resources	3.34	3.24
Basic math skills	3.26	3.22

[1]Double dash denotes items that were not compared because of late addition.

Table 23. A comparison of Delphi Round 2 and Round 3 responses: Job competencies after training.

Job competency after training	Mean score Round 2	Mean score Round 3
Know and understand target area and audience	4.77	4.74
Communication skills	4.74	4.65
Knowledge of curriculum (Basic knowledge of subject matter)	4.66	4.62
Interpersonal/people skills	4.56	4.56
Ability to conduct 24hr food recall	--[1]	4.52
Knowledge of role and limitation of program/agency	4.57	4.47
Knowledge of community resources	4.46	4.38
Listening skills	--	4.36
Knowledge of rules to be an employee	4.60	4.35
Basic teaching skills	4.46	4.35
Ability to recruit/recruitment skills	4.43	4.35
Record keeping skills	4.26	4.33
Adult teaching skills	4.56	4.24
Ability not to impart own belief system to participants	--	4.22
Group teaching skills	4.26	4.21
Ability to apply a variety of teaching methods	4.43	4.21
Non-judgmental	4.09	4.21
Make initial and follow-up home visits to families	--	4.19

[1]Double dash denotes items that were not compared because of late addition.

Table 23. (Continued).

Job competency after training	Mean score Round 2	Mean score Round 3
Questioning skills	--	4.18
Reporting skills	4.23	4.15
Ability and willingness to accept directions and suggestions from supervisor	--	4.14
One-to-one teaching skills	4.31	4.12
Organizational skills	4.23	4.12
Personal safety skills	4.29	4.12
Flexible/adaptable	4.06	4.06
Ability to interpret the results of the 24 hr food recalls	--	4.06
Ability to work with diverse audience	4.26	4.03
Ability to set goals	4.20	4.00
Self-confidence/self-efficacy to be an educator	3.74	3.97
Understand and use facilitative education	3.75	3.97
Ability to bridge participant culture and that of professional	--	3.94
Punctual/timely	4.20	3.93
Team player	4.34	3.91
Ability to take care of office equipment and teaching materials	3.91	3.85
Positive attitude towards work	3.94	3.79
Ability to solve problems	4.09	3.79

[1]Double dash denotes items that were not compared because of late addition.

Table 23. (Continued).

Job competency after training	Mean score Round 2	Mean score Round 3
Phone skills	--	3.70
Creative/innovative	--	3.67
Read and write well	3.69	3.58
Decide when to conclude a teaching session and graduate learner based on learners capability	--	3.57
Basic math skills	3.71	3.55
Computer skills	--	2.42
Comprehend research	--	2.39

[1]Double dash denotes items that were not compared because of late addition.

Table 24. Summary of the placement in categories of job competencies before hire

Category	Job competency prior to hire	Total N	Mode[1]	(%)
Communication skill	Communication skills	29	29	100
	Listening skills	29	21	72
	Phone skills	29	19	66
	Read and write well	29	14	48
Interpersonal skill	Ability to work with people	28	24	86
	Ability to be confidential	27	20	74
	Team player	28	22	79
	Ability to work with diverse audiences	28	17	61
	Follows/takes direction	28	9	32
Knowledge	Basic math skills	29	24	83
	Knowledge of community resources	29	22	76
	Know and understand target area and audience	29	17	59
	Ability to solve problems	28	9	32
Organizational skill	Organizational skills	29	27	93
	Punctual/timely	27	21	78
Teaching skill	Ability to work with adults/youth/children	28	13	46
	Creative/innovative	26	9	35
	Ability to be taught/teachable	26	9	35

[1]The mode indicates number of respondents that placed competency in the category shown.

Table 25. Summary of the placement in categories of job competencies after training

Category	Job competency after training	Total N	Mode[1]	(%)
Communication skill	Communication skills	32	29	91
	Listening skills	30	23	77
	Questioning skills	23	23	77
	Phone skill	29	21	72
	Read and write well	17	17	29
	Ability to recruit/recruitment skills	32	13	41
Interpersonal skill	Interpersonal/people skills	32	25	78
	Non-judgmental	30	23	77
	Team player	29	22	76
	Ability to work with diverse audience	30	21	70
	Ability not to impart own belief system to participants	28	20	71
	Ability to bridge participant culture and that of professional	28	20	71
	Ability and willingness to accept directions and suggestions from supervisor	25	15	60
	Positive attitude towards work	28	15	48
	Self-confidence/self-efficacy to be an educator	29	14	48
	Flexible/adaptable	27	13	48
	Ability to solve problems	30	12	40
Knowledge	Knowledge of community resources	32	27	84
	Comprehend research	28	27	96
	Knowledge of role and limitation of program/agency	32	26	81
	Knowledge of curriculum (Basic knowledge of subject matter)	32	25	78
	Basic math skills	30	23	77
	Knowledge of rules to be an employee	32	23	72
	Personal safety skills	31	19	61
	Ability to interpret the results of the 24 hr food recalls	28	17	61
	Know and understand target area and audience	32	19	59
	Computer skill	27	14	52

114

Table 25. (Continued).

Category	Job competency after training	Total N	Mode	(%)
Organizational skill	Organizational skills	31	29	94
	Record keeping skills	31	28	90
	Reporting skills	31	24	77
	Punctual/timely	29	20	69
	Ability to take care of office equipment and teaching materials	31	15	48
	Ability to set goals	31	13	42
	Make initial and follow-up home visits to families	26	10	38
Teaching skill	Adult teaching skills	32	31	97
	One-to-one teaching skills	31	30	97
	Basic teaching skills	32	30	94
	Ability to apply a variety of teaching methods	32	30	94
	Group teaching skills	31	27	87
	Ability to apply a variety of teaching methods	32	30	94
	Group teaching skills	31	27	87
	Understand and use facilitative education	29	21	72
	Decide when to conclude a teaching session and graduate learner based on learners capability	25	14	56
	Creative /innovative	29	12	41
	Ability to conduct 24hr food recall	29	11	38

[1]The mode indicates number of respondents that placed competency in the category shown.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The major purpose of this chapter is to present a summary of the data collected and

analysis of the data, conclusions drawn from the data, and recommendations for future

research.

The purpose of this study was to determine the personal attributes and job

competencies required of EFNEP paraprofessionals to be successful on the job as

perceived by EFNEP professionals. The objectives of the study were

1. To determine the content currently provided to EFNEP paraprofessionals at initial

   training programs and length of time for the initial training.

2. To determine personal attributes and job competencies that are necessary for the job

   success of EFNEP paraprofessionals as perceived by EFNEP professionals.

3. To rank the personal attributes and job competencies needed by paraprofessionals to

   be successful on the job as perceived by the EFNEP professionals.

4. To categorize the job competencies desired of EFNEP paraprofessionals by EFNEP

   professionals.

Description of the Subjects

The subjects in the present study were state coordinators and EFNEP county and area educators working in the EFNEP from 19 states and 2 territories. The subjects were contacted by electronic mail and postal mail. The majority of the respondents were graduates with masters and doctoral degrees. All were females with the majority being white with a mean age of 46y and 44y for the state and county professionals, respectively.

Conclusions

Objective one of the study was to determine the content provided at initial training programs. Thirty-three initial training topics were presented to the respondents to indicate if these topics were included in initial training for their state or county. Several topics were indicated by the majority of the respondents to be included in the initial training. The state and county level agents were in agreement on most of the nutrition topics that were included in the initial training of the EFNEP paraprofessionals. More of the state professionals than the county professionals indicated that non-nutrition topics were taught in initial training. It was concluded that the state professionals and county professionals were in agreement on the topics regarding nutrition but differed on other non-nutrition topics. It was also found that the ERIB curriculum content could be driving the nutrition topics taught in the initial training with the exclusion of a few topics. A

comparison of the topics taught during the initial training to the job competencies considered important for job success showed that some competencies that were perceived by the respondents to be important were not included in the initial training. Thus the job competencies perceived by professionals to be important for job success of the paraprofessional are not necessarily included as topics to be taught during the initial training.

The length of time for initial training was objective one. The time spent during the initial training varied from 18 to 300 hours. It was concluded that the time provided for the initial training varied widely, which indicated that this varied from state to state or county to county.

To achieve objective two, the professionals were asked to generate a list of personal attributes and job competencies in the first round. The list included 131 items after initial analysis and editing. Thus the Delphi procedure successfully resulted in the generation of personal attributes and job competencies perceived to be important for paraprofessional job success.

Objective three was to rank the personal attributes and job competencies generated during round 1. Utilizing two rounds of the Delphi, the respondents provided a rating for the personal attributes and job competencies with a re-rating of the items to develop a consensus. Based on the respondents' ratings, a mean score was calculated to rank the personal attributes and job competencies. After editing and compiling the generated items after round 1 and 2, the final list was comprised of 37 personal attributes, 18 job competencies prior to hire, and 43 job competencies after training. Thus the ranking of the personal attributes and job competencies resulted in the determination of the relative

importance of the characteristics that predict the success of the paraprofessional on the job.

To achieve objective four, the respondents placed the competencies generated in this study into five categories, communication skill, interpersonal skill, knowledge, organizational skill and teaching skill. There was agreement on category for most of the items.

In summary, the respondents indicated that they need paraprofessionals who are dependable or reliable, honest or trustworthy, relate well with other people (interpersonal skills), have the ability to work with people, know and understand the target area and audience, communicate well, know the curriculum (subject matter), and can conduct a 24 hour food recall.

Implications for Practice

1. The generation and ranking of the personal attributes and job competencies in this study was with the input of selected EFNEP professionals across the USA. The personal attributes and job competencies represent consensus; it is therefore recommended that the characteristics generated in the present study should be used to develop a preliminary list for the characteristics to be used when hiring paraprofessionals.

2. This study provides a starting point for the states and counties to develop a list of job competencies to evaluate paraprofessionals' job performance.

3. The job competencies after training can be used to build the initial training

curriculum and on-the-job training curriculum of paraprofessionals by knowing what competencies paraprofessionals should possess.

Recommendations for Further Research

1. The personal attributes and the job competencies generated need to be validated with a more quantitative survey to all EFNEP professionals and professionals who work with other nutrition education paraprofessionals.

2. Using a revised instrument, the study could be replicated using a larger sample to categorize the characteristics.

3. This study could be repeated with paraprofessionals generating the characteristics that they feel predict their success on the job.

4. This study could be repeated after defining job success.

REFERENCES

Allen, R., Conone, R., Hammerschmidt, P., James, J., Konzelmann, K., Lennon, D., Marlowe, J., McCloud-Harrison, J., McCray, J., Melcher, L., Parker, L., Schuster, E., Smith, C., Valdez, G., & Williams-Willis, L. (1991, April). Reaching limited resource audiences, recommendations for extension action in the 1990's. A report of the limited resource audiences committee. Washington, D. C.

Amstutz, M. K., & Dixon, D. L. (1986). Dietary changes resulting from the Expanded Food and Nutrition Education Program. Journal of Nutrition Education 18, 55-60

Anderson, J. E. L. (1988). EFNEP evaluation in Colorado using a simplified progression form. Journal of Nutrition Education, 20, 227-231.

Argo, J. K., Watson, D. R., & Lee, E. C. (1984). A computer-managed clinical evaluation system: Implications for competency-based dietetic education programs. Journal of the American Dietetic Association, 84, 36-41.

Block, A. P. & Tredici, A. D. (1984). A study of the effectiveness of the one-to-one teaching method versus the group teaching method in the EFNEP program in California. 1-26. Unpublished study.

Boudreaux, L. J., Shanklin, C. W., & Johnson, J. T. (1991). Factors influencing success of dietitians employed in business and industry. Journal of the American Dietetic Association, 91, 1227-1232.

Bowering, J., Morrison, M. A., Lowenberg, R. L., & Tirado, N. (1976). Role of EFNEP aides in improving diets of pregnant women. Journal of Nutrition Education, 8, 111-118.

Bradish, D. (1980). An impact study of selected extension programs that assist people to recognize and pursue economic opportunities: Expanded Food and Nutrition Education Program paraprofessional employment. Cooperative Extension Service, Mississippi State University.

Bremner, B., Campbell, C. C., & Sobal, J. (1994). Comparison of the beliefs and practices of EFNEP clients with staff perceptions of clients. Journal of Nutrition Education, 26, 123-130.

Broberg, J. B. (1987). Ranking criteria for hiring newly certified teachers: A Delphi technique. Unpublished doctoral dissertation. Oklahoma State University.

Brink, M. S., & Sobal, J. (1994). Retention of nutritional knowledge and practices among adult EFNEP participants. Journal of Nutrition Education, 26, 74-78.

Butler, F. C. (1978). The concept of competence: an operational definition. Educational Technology, 18, 7-18.

Chase, H. P., Larson, L. B., Massoth, D. M., Martin, D. L., & Nierberg, M. M. (1973). Effectiveness of nutrition aides in a migrant population. American Journal of Clinical Nutrition, 26, 849-857.

Chipman, H., & Kendall, P. A. (1989). 20 Years of EFNEP: Changes and challenges. Journal of Nutrition Education, 21, 265-269.

Chiza-Muyengwa, M., & Ebert, G. M. (1991). Nutrition knowledge of EFNEP paraprofessionals. Journal of Extension, Fall, 37-38.

Collazo, L., Hall, T., Hare, N., Hill, J., Hughes, R., Pulifo, N., Quinones, G., Shorter, M., Smith, A., & Todd, C. M. (1993). Beyond the expert helping model. Empowering paraprofessionals and families at risk. Journal of Extension, Fall, 14-16.

Contento, I., Balch, G. I., Bronner, Y. l., Lytle, L. A., Maloney. S. K., Olson, C. M., & Swadener, S. S. (1995). Executive summary. Journal of Nutrition Education, 27, 279-420.

Cyphert, F. R. & Gant, W. L. (1971). The Delphi technique: A case study. Phi Delta Kappan. January, pp. 272-273.

Dalkey, N. C. (1969). The Delphi method. Santa Monica, California, Rand Corp.

Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). Group techniques for program planning: A guide to nominal group and Delphi processes. Glenview, Ill: Scott, Foresman and Co.

Dillman, D. A. (1978). Mail and telephone surveys: The total design method. New York, NY: John Wiley and Sons.

Dunn, P. O., Sims, L. S., & Brown, E. J. (1984). Final report: 1981-1983 EFNEP/Food Stamp Pilot Project. Cooperative Extension: The Pennsylvania State University, University Park, Pennsylvania. 127.

Eating Right is Basic. (1991). Expanded food and nutrition education workbook, Cooperative extension, Washington State University. Pullman, WA (Rev. ed.).

Eating Right is Basic. (1995). Oklahoma State University (3rd ed.).

Giblin, P. T. (1989). Effective utilization of indigenous health care workers. Public Health Reports, 104, 361-366.

Glosson, L. R. C. (1979). Competencies needed by teachers of vocational education for the handicapped: A Delphi approach. Unpublished doctoral dissertation in Home Economics, December.

Gorton, R. A. (1982). School personnel policies. In H. E. Mitzel (Ed.). Encyclopedia of educational research (pp. 1645-1658). New York: The Free Press.

Guralnik, D. B. (Ed.) (1982). Webster's New World Dictionary (2nd ed.). New York: Simon and Schuster.

Green, L. W., Wang, L. W., & Ephross, P. H. (1974). A 3-year longitudinal study of the impact on nutrition aides on the knowledge, attitudes, and practices of rural poor homemakers. American Journal of Public Health, 64, 722-724.

Haessig, C. J. D. (1979). Identification and verification of competencies for entry-level community dietitians. Unpublished doctoral dissertation. The Ohio State University.

Harritt, G. G. (1987). Perceptions of vocational agriculture teachers and county extension agents as to the importance and feasibility of alternative approaches to farming in Southeast Oklahoma. Unpublished doctoral dissertation. Oklahoma State University.

Hartman, T. J., McCarthy, P. R., Park, R. J., Schuster, E., & Kushi, L. H. (1997). Results of a community-based low-literacy nutrition education program. Journal of Community Health, 22, 325-341.

Hattie, J. A., Sharpley, C. F., & Rogers, H. J. (1984). Comparative effectiveness of professional and paraprofessional helpers. American Psychology Association, 95, 534-541.

Helmer, H. O. (1966). The use of the Delphi technique in problems of educational innovations. (Report No. P-3499). Santa Monica, CA: Rand Corporation.

Helmer, H. O. (1983). Looking forward a guide to futures research. Beverly Hills, California. Sage Publications.

Henderson, Z. P. (1992). Educating multicultural groups. Human Ecology Forum, Fall, 17-19.

Hester, E. G. (1980). The Delphi method: expert versus non-expert opinion on the feasibility of marketing a solar water heater through public utilities. Unpublished doctoral dissertation, Oklahoma State University.

Hopkins, C. O., Ritter, K. L., & Stevenson, W. W. L. (1972). Delphi: A planning tool. Stillwater, OK: Division on Research, Planning, and Evaluation, Oklahoma State Department of Vocational and Technical Education.

Iscan. W. E., & Nelson, H. Y. (1977). Follow-up of paraprofessionals working with low-income families. Home Economics Research Journal. 6, 148-163.

Kennedy, L. A., Hunt, C., & Hodgson, P. (1998). Nutrition education program based on EFNEP for low-income women in the United Kingdom: "Friends with Food." Journal of Nutrition Education, 30, 89-99.

Knapp, S. T. F. (1991). Reflections on nutrition education for the rural, low-income community. Nutrition Today, November/December, 32-37.

Leidenfrost, N. (1986). Using Paraprofessionals to Deliver Educational Programs, USDA, Extension Service. Government printing office. Washington, D. C.

Leverton, R. (1974). What is nutrition education? Journal of the American Dietetic Association, 64, 17-18.

Light, R. G. & Randall, M. (1984). Final report: Good food becomes you. A project to test the efficiency and effectiveness of selected teaching methods in the Massachusetts Expanded Food and Nutrition Education Program. Cooperative Extension: University of Massachusetts, Amherst, Massachusetts, pp. 103.

Lopez, L., & Berce, M. (1989). Food Stamp use and the nutrition practices of participants in the Colorado Expanded Food and Nutrition Education Program. Journal of the American Dietetic Association, 89, 1312-1313.

Macario, E., Emmons, K. M., Sorensen, G., Hunt, M. K., & Rudd, R.E. (1998). Factors influencing nutrition education for patients with low literacy skills. Journal of the American Dietetic Association, 98, 559-564.

Mehrens, W. & Lehmann, I. (1975). Measurement and evaluation in education psychology. 2nd Ed. New York; Holt, Rinehart and Winston.

Nitzke, S., & Voichick, J. (1992). Overview of reading and literacy research and applications in nutrition education. Journal of Nutrition Education, 24, 261-266.

Olmstead-Schafer, M., Story, M., & Haughton, B. (1996). Future training needs in public health nutrition: Results of a national Delphi survey. Journal of the American Dietetic Association, 96, 282-283.

Olson, C. M. (1994). A review of the research on the effects of training in nutrition education on intermediaries, paraprofessionals and professionals. USDA, Food & Consumer Services.

Pels, R. R. (1984). Essential orientation. School Food Service Journal June/July/August, 92-102.

Pickett, A. L. (1984). The paraprofessional movement: An update. Social Policy, Winter, 40-43.

Proulx, J. M., & Jackson, M. Y. (1989) Nutrition education for cross-cultural bilingual paraprofessionals. Journal of Nutrition Education, 21, 180-182.

Pub. L 97-98 (1981). National Agricultural Research Extension, and Teaching Policy Act of 1977. Title XIV, Sec. 1423(c) 97th Congress 97-98, (1981).

Randall, M. J., Brink, M. S., & Joy, A. B. (1989). EFNEP: An investment in America's future. Journal of Nutrition Education, 21, 276-279.

Reames, B., & Burnett, M. F. (1991). Weight management practices of black paraprofessional women. Journal of the American Dietetic Association, 91, 841-842.

Reissmann, F. (1984). Paraprofessionals: Twenty years later. Social Policy, Winter, 39.

Romero, V. A., Medeiros, D. M., & Melcher, L. (1988). Use and effectiveness of Wyoming EFNEP's lesson series. Journal of Nutrition Education, 20, 15-19.

Santopolo, F. A., & Kell, K. (1976). Paraprofessionals: critical job requirements. Journal of Extension, July/August, 87-10.

Shafer, E. (1984). My experience as a paraprofessional. Social Policy, Winter, 47-49.

Spindler, E. B., Jacobson, M. E., & Russell, C. (1969). Action programs to improve nutrition. Journal of Home Economics, 61, 635-640.

Steel, R. G. D., Torrie, J. H., & Dickey, D. (1997). Principles and procedures of statistics: A biometrical approach. The McGraw-Hill Companies, Inc. New York, NY (3rd ed).

Torisky, D. M., Hertzler, A. A., Johnson, J. M., Keller, J. F., Hodges, P. A. M., & Mifflin, B. S. (1989). Virginia EFNEP homemakers' dietary improvement and relation to selected family factors. Journal of Nutrition Education, 21, 249-258.

Tredici, A. M., Block, A. J., Omelich, C. L., & Laughlin, S. G. (1988). Evaluation study of the California Expanded Food and Nutrition Program: 24-hour food recall data. Journal of the American Dietetic Association, 88, 185-190.

United States Department of Agriculture, Extension service, Expanded Food and Nutrition Education Program, Guide to program management and supervision, 1983. Washington, D. C.

United States Department of Agriculture, Extension service, Expanded Food and Nutrition Education Program, 1986. Washington, D. C.

United States Department of Agriculture, Extension service, Expanded Food and Nutrition Education Program, 1994. Washington, D. C.

United States Department of Agriculture. Science and Education Administration/ES. Technical Summary: An assessment of the objectives, implementation and effectiveness for the Adult Expanded Food and Nutrition and Education Program, Washington, D. C December 1981, 1.1-10.5. p 2).

Wang, V. L., & Ephross, P. H. (1971). ENEP evaluated. Journal of Nutrition Education, 2, 148-152.

Wang, V. L., Ephross, P. H., & Green, L. W. (1975). The point of diminishing returns in nutrition education through home visits by aides: An evaluation of EFNEP. Health Education Monographs, 3, 70-88.

Wang, V. L. (1977). Changing nutritional behavior by aides in two programs. Journal of Nutrition Education, 9, 109-113.

Weaver, W. T. (1971). The Delphi forecasting method. Phi Delta Kappan, January pp. 267-271.

Webster's third new international dictionary of the English language, unabridged; Merriam-Webster Inc., (1986). Springfield, MA.

Yerka, B. L. (1974). Effectiveness of paraprofessionals in working with low-income families: An experimental study. Unpublished doctoral dissertation. Syracuse University, Ph. D.

APPENDICES

APPENDIX A

FOOD BEHAVIOR CHECKLIST

CNEP SURVEY

| Participant's Name: | ID # |
| Date | Check if Interview (NEA completed form) Entry ☐ Intermediate ☐ Exit ☐ |

This is a survey about ways to plan and fix foods for your family. As you read each question, think about the recent past. This is not a test. There are not any wrong answers. If you do not have children, just answer the questions for yourself.

For these questions, think about how you usually do things. Please put a check in the box that best answers each question.	Do Not Do	Seldom	Some-times	Most of the time	Almost Always
(1) How often do you plan meals ahead of time?					
(2) How often do you compare prices before you buy food?					
(3) How often do you run out of food before the end of the month?					
(4) How often do you shop with a grocery list?					
(5) This question is about meat and dairy foods. How often do you let these foods sit out for more than two hours?					
(6) How often do you thaw frozen foods at room temperature?					
(7) When deciding what to feed your family, how often do you think about healthy food choices?					
(8) How often have you prepared foods without adding salt?					
(9) How often do you use the "Nutrition Facts" on the food label to make food choices?					
(10) How often do your children eat something in the morning within 2 hours of waking up?					

2/6/98

APPENDIX B

IRB APPROVAL

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: January 02, 1998   IRB #: HE-98-031

Proposal Title: IMPORTANT PERSONAL ATTRIBUTES AND JOB COMPETENCIES OF
PARAPROFESSIONALS IN EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM:
DELPHI STUDY

Principal Investigator(s): Kathryn Keim, Glenna Williams, Betty A. Wakou

Reviewed and Processed as: Modification

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT
NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE
APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR
PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE
SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.
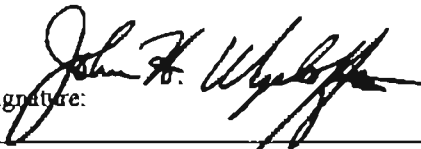
Comments, Modifications/Conditions for Approval or Disapproval are as follows:
Please delete the email address from the surveys you receive back and shred those. Do not keep any records of
the respondents or whom the surveys were sent to.

Signature: _____   Date: January 15, 1998

Chair of Institutional Review Board
Cc: Betty A. Wakou

131

APPENDIX C

LETTER FOR THE PILOT STUDY: DELPHI ROUND 1

OSU

MEMORANDUM

January 2, 1998

Dear Ms.   :

As a Master's student at Oklahoma State University, I am currently involved in a pilot study for my thesis concerning the important personal attributes and job competencies of a paraprofessional employed in the Expanded Food and Nutrition Education Program (EFNEP). Past studies have documented the success of the EFNEP in bringing about improved dietary intake and improved food practices of participants due to the education intervention by paraprofessionals. With the rapid changes in society, the question arises as to what are the important personal attributes and job competencies required of paraprofessionals to be successful in the position. The goal of this project is to determine personal attributes and job competencies required of paraprofessionals to be successful in the position.

The Delphi research technique will be used. This technique provides for a systematic collection and refinement of expert opinions on a particular subject without bringing the experts together face to face. Three successive mailings or rounds will be used to bring about agreement concerning the most important personal attributes and job competencies for the success of a paraprofessional with EFNEP participants. The process consists of obtaining each person's opinions on three questionnaires in three rounds.

(1) The first questionnaire (Round 1) will include open-ended questions requesting a list personal attributes and job competencies that each respondent thinks are important for a paraprofessional today. The items listed will be compiled into one list.
(2) The second questionnaire will be created (Round 2) based on how all subjects will respond to Round 1. In Round 2, the respondents will be asked to rate the competencies and attributes according to their importance.
(3) The third and final questionnaire (Round 3) will include the respondent's rating from Round 2. The respondents will also be asked to categorize the personal attributes and job competencies into knowledge, communication skills, personal interest, values, attitudes, and leadership.

We need your assistance to pilot test the Round 1 questionnaire because of your involvement in research, Cooperative Extension, or expertise in the Delphi technique as a research tool.

Bringing
Dreams
to Life

The Campaign for OSU

133

You are being requested to:

(1) note the time it takes to fill out each part of the Round 1 questionnaire, a) for the demographics b) for generating a list of competencies and personal attributes.
(2) write in any information you find missing in the instrument.
(3) cross out information that is not needed.
(4) mark areas that are not clear and suggest possible solutions to the problem.
(5) comment on the adequacy of using three rounds.

Please complete the enclosed questionnaire and return it in the enclosed self-addressed envelope by January 12th, 1998.

Thank you for your assistance and cooperation in piloting the research instrument.

Sincerely,

Kathryn S. Keim, PhD, RD/LD   Betty Wakou
Asst. Professor, Nutritional Sciences   Graduate Student
Oklahoma State University
kkathry@okway.okstate.edu

APPENDIX D

RECRUITMENT LETTER

OSU

Department of Nutritional Sciences
425 Human Environmental Sciences
Stillwater, Oklahoma 74078-6141
405-744-5040, FAX 405-744-7113
Email nutrsci-i@okway.okstate.edu
http://www.okstate.edu/hes/nsd/nutsci.html

MEMORANDUM

February 3, 1998

Dear Dr./Ms.   :

Studies have documented the success of the EFNEP in bringing about improved dietary intake and improved food practices of participants due to the education intervention by paraprofessionals. Few studies have been carried out to ascertain the effectiveness of early training or continuous training on the paraprofessionals' job performance. With the rapid changes in society, the question arises as to what are the important personal attributes and job competencies required of paraprofessionals to be successful in the position. The goal of this project is to determine personal attributes and job competencies required of paraprofessionals to be successful in the position.

To be sure that we include information that will be useful to you, we need to know what personal attributes and job competencies you think are important for nutrition education paraprofessionals to possess to be successful as educators. As a state coordinator and professional, you are being invited to participate in this study as an expert panel member in developing the list of the necessary competencies and attributes. The Delphi Technique will be used to come to an agreement among EFNEP professionals regarding the importance of these competencies and attributes.

The Delphi Technique provides for a systematic collection and refinement of expert opinions on a particular subject without bringing the experts together face to face. The Delphi Technique will utilize three successive mailings or rounds, designed to bring about agreement concerning the most important personal attributes and job competencies for the success of a paraprofessional with EFNEP participants. The process consists of obtaining each person's opinions on three questionnaires in three rounds.

(1) The first questionnaire (Round 1) will include open-ended questions asking you to list personal attributes and job competencies you think are important for a paraprofessional today. After the first questionnaire is returned to us, the results will be tabulated and the items on which most professionals agree will be included in the next questionnaire.

Bringing
Dreams
to Life

The Campaign for OSU

136

The second questionnaire will be created (Round 2) based on how all subjects responded to Round 1. In Round 2, you will be asked to rate the competencies and attributes according to how important you think they are.

(2) The same procedure will be followed in developing the third questionnaire (Round 3). The third and final questionnaire (Round 3) will include your rating from Round 2. You will also place the attributes and competencies into categories such as knowledge, communication skills, personal interest, values, attitudes, and leadership. Therefore, each questionnaire should be shorter than the previous one. Each questionnaire should not take more than 1 hour to complete, with the first round taking the longest length of time.

It is essential that each person responds to ALL THREE questionnaires. Your cooperation and opinions are vital for the development of the attributes and competencies deemed important by professionals that can be used when hiring, training, and evaluating paraprofessionals. With your prompt return of the questionnaires all three can be completed within a short period. The results will be sent to you. The information you provide will be confidential. All results will be summarized using group data. Individual data will not be released. At no time will your name appear on the Round 2 or Round 3 questionnaires. You will be assigned a subject number that will only be known to the researchers.

Kindly inform us of your interest to participate in this study by responding to this message by indicating yes or no on the enclosed postage paid post card. Participating in this project is voluntary on your part. If you volunteer to be a subject in the study, within two weeks you will receive the Round 1 questionnaire.

We would also like the name, address, work phone number and work email address of three EFNEP professionals that directly supervise the EFNEP paraprofessionals and five EFNEP paraprofessionals. We will be contacting them also, to be subjects in this study. The EFNEP supervisors will be completing the same questionnaires as yourself. The EFNEP paraprofessionals will receive Round 2 and Round 3 questionnaires, only.

Thank you.

Sincerely yours,

Kathryn S. Keim, PhD, RD/LD   Glenna Williams, EdD   Betty Wakou
Asst. Professor, Nutritional Sciences   State EFNEP Coordinator   MS Graduate Student
kkathry@okway.okstate.edu   Fulbright Grantee

APPENDIX E

DEMOGRAPHIC QUESTIONS: DELPHI ROUND 1

_____

Directions: Please answer the following questions by either filling in the blank, circling a number or marking your answer with an X by the number.

1. What is the highest level of education you have <u>completed</u>? (Circle number)

    1 Elementary School (grades 1-6)
    2 Some High School
    3 High School Graduate/GED
    4 Some Technical School/Some College
    5 Technical School Degree
    6 College Graduate
    7 Graduate Degree - MS
    8 Graduate Degree - PhD/EdD
    9 Other: (Please fill in blank.) _____

2. What year were you born? (Fill in the blank.)

    19_____

3. What is your gender? (Circle number)

    1 Male   2 Female

4. What is your race? (Circle number)

    1 White
    2 Black
    3 Asian/Pacific Islander
    4 American Indian/Alaska Native
    5 Other: (Please fill in blank.)

    _____

5. Are you of Hispanic origin? (Circle number)

    1 Yes
    2 No

6. My responsibilities as an EFNEP professional are with which of the following programs?
(Circle number)

    1 Majority of time is with the adult program
    2 Majority of time is with the youth program
    3 All of my time is with the adult program
    4 All of my time is with the youth program
    5 My time is equally divided between the adult and youth programs

7. My responsibilities as an EFNEP professional are best described as (Circle number)

    1 County responsibility (Supervise paraprofessionals for one county)
    2 Regional responsibility (More than one county)
    3 State level responsibility (Responsible for all state programming)

8. Total FTE (full time equivalents) of paraprofessionals in your program? (Fill in the blank.)

_____

9. Number of paraprofessionals hired per year? (Fill in the blank.)

_____

10. Total number of adults in EFNEP graduated per year? (Fill in the blank.)

_____

11. Total number of youth in EFNEP reached/taught per year? (Fill in the blank.)

_____

12. What percentage of the paraprofessionals total time is spent in one-on-one education? (Fill in the blank.)

_____ % time

13. What percentage of the paraprofessionals total time is spent in group instruction? (Fill in the blank.)

_____ % time

APPENDIX F

DELPHI ROUND 1 QUESTIONNAIRE

Round 1 - Delphi Questionnaire for EFNEP Professionals

Definitions used in this project.

Personal attributes may include values, beliefs, attitudes, interests, or behaviors an EFNEP paraprofessionals already has before being hired.

Job competencies may relate to knowledge and skills necessary for a paraprofessional to have before being hired, and after completing an orientation in-service and before working with EFNEP participants.

Include both current personal attributes and job competencies you consider and those you feel should be considered in the future.

Directions: Please use your knowledge and experience to identify 1) personal attributes of a paraprofessional that you perceive to be important when hiring a paraprofessional, 2) job competencies that the paraprofessional should have before being hired and 3) job competencies that the paraprofessional should have after training and before working with EFNEP participants.

Please answer each of the following questions as specifically and completely as possible.

1. (a) What PERSONAL ATTRIBUTES do you think a paraprofessional in nutrition education should have before being hired?

(b) For each personal attribute, provide a reason you think this attribute is important and desirable for a paraprofessional to possess.

You can add other pages if you so desire.

Personal Attribute   **Reason(s)**

a)_____   _____

b)_____   _____

c)_____   _____

d)_____   _____

e)_____   _____

f)_____   _____

g)_____   _____

h)_____   _____

i)_____   _____

j)_____   _____

k)_____   _____

2. (a) What JOB COMPETENCIES do you think a paraprofessional should have BEFORE being hired?
(b) For each job competency, provide a reason you think the competency is important and desirable for a paraprofessional to possess.

You can add other pages if you so desire.

Job Competency Prior to Hire   **Reason(s)**

a)_____   _____

b)_____   _____

c)_____   _____

d)_____   _____

e)_____   _____

f)_____   _____

g)_____   _____

h)_____   _____

i)_____   _____

j)_____   _____

k)_____   _____

Job Competency Prior to Hire

l) _____

m) _____

n) _____

o) _____

p) _____

q) _____

r) _____

s) _____

t) _____

u) _____

v) _____

Reason(s)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

3. (a) What JOB COMPETENCIES, do you think a paraprofessional should have AFTER completing an orientation in-service and before working with EFNEP participants?

(b) For each job competency, provide a reason you think the competency is important and desirable for a paraprofessional to possess.

You can add other pages if you so desire.

Job Competency After Training   **Reason(s)**

a)_____   _____

b)_____ . . _____   _____

c)_____   _____

d)_____   _____

e)_____   _____

f)_____   _____

g)_____   _____

h)_____   _____

i)_____   _____

j)_____   _____

k)_____   _____

Job Competency After Training

Reason(s)

l) _____

m) _____

n) _____

o) _____

p) _____

q) _____

r) _____

s) _____

t) _____

u) _____

v) _____

147

APPENDIX G

TOPICS FOR INITIAL TRAINING

Describe how you currently provide initial training to new paraprofessionals?

14. Initial training: total hours _____ hr. (Fill in the blank.)

15. Topics covered during initial training. (Check all that apply.)

Topic	Topic
1 nutrition	18 working with groups
2 food storage	19 educating groups
3 food safety	20 educating individuals
4 meal planning	21 record keeping
5 food selection	22 recruiting participants
6 food preparation	23 personal safety skills
7 food preservation	24 time management
8 food labels	25 child abuse identification
9 use and care of equipment	26 goal setting skills
10 gardening	27 use of computer
11 nutrition during pregnancy	28 referral skills
12 weight management	29 working with agencies
13 food intake	30 infant nutrition
14 nutrition and chronic disease	31 cultural sensitivity
15 how to conduct a 24 hr food recall	32 interpersonal skills
16 food guide pyramid	33 being a team member
17 money management	
other : (Fill in the blank(s))	

APPENDIX H

COVER LETTER: DELPHI ROUND 1

OSU

Department of Nutritional Sciences
425 Human Environmental Sciences
Stillwater, Oklahoma 74078-6141
405-744-5040, FAX 405-744-7113
Email nutrsci-i@okway.okstate.edu
http://www.okstate.edu/hes/nsd/nutsci.html

M E M O R A N D U M

March 4, 1998

Dear Dr./Ms.   :

You have either volunteered to participate in this study or your name was given to us by your state EFNEP professional as a person who might like to participate in this study. Your participating in this study is voluntary and if you do not want to participate do not answer the survey and ignore this letter. If you would like to participate in this study, THANK YOU and please read on.

Studies have documented the success of the EFNEP in bringing about improved dietary intake and improved food practices as a result of intervention by paraprofessionals. Few studies have been carried out to determine the characteristics that make the nutrition education paraprofessional successful on the job.

As a state coordinator and professional, you are being requested to participate in this study as an expert panel member in developing and ranking the most important qualities. We will be using the Delphi Technique to come to agreement among EFNEP professionals regarding the importance of these competencies and attributes.

A Delphi study provides for a systematic collection and refinement of opinions on a particular subject. The Delphi process is used for attaining agreement from a number of people. The process consists of obtaining each person's opinions on three rounds of questionnaires. To be sure that we include information that will be useful to you, we need to know what personal attributes and job competencies you feel nutrition education paraprofessionals should have in order to be successful on the job. During the first round, you will be asked to list personal attributes and job competencies which you feel are important for paraprofessionals to have in order to conduct a successful EFNEP program. For the following two rounds, you will then rank the list of personal attributes and job competencies.

From Round 1, the items on which most professionals agree will be compiled to form the Round 2 questionnaire. In Round 2 and Round 3 questionnaires, you will rank the items in order of their importance. Your name will not appear on any of the questionnaires. You will be assigned a subject number that is known only to us and yourself.

Bringing Dreams to Life

The Campaign for OSU

It is essential that you respond to ALL THREE questionnaires. Your cooperation and opinions are vital for the development of the useful qualities to assess in paraprofessionals by professionals that can be employed when hiring, training, and graduating paraprofessionals. With your prompt return of the questionnaires all three can be completed within a short period of time and the results will be sent to you.

The information you provide will be confidential. All results will be summarized for the group of participants. Individual data will not be released. The study is being conducted by a masters student, Fulbright Grantee from the Department of Nutritional Sciences, at Oklahoma State University.

Please complete the enclosed questionnaire and return it in the enclosed self-addressed, stamped envelope **as soon as possible** to ensure that the second round may be promptly returned to you. The graduate student and I will be starting analysis of the round 1 surveys the week of March 9, 1998. We will place air mail postage on your return envelope so it can get back here as fast as possible.

Thank you for your time and kind assistance.

Sincerely yours,

Kathryn S. Keim, PhD, RD/LD   Glenna Williams, EdD   Betty Wakou
Asst. Professor, Nutritional   State EFNEP Coordinator   MS Graduate Student
Sciences   Fulbright Grantee
kkathry@okway.okstate.edu

APPENDIX I

REMINDER NOTE: DELPHI ROUND 1

Dear Dr./Ms. _____:

Subject: Delphi Study

Date:_____.

Approximately one week ago you received a survey from Oklahoma State University, Nutritional Science, department. The survey was in reference to your perceptions about the personal attributes and job competencies of paraprofessionals in EFNEP.

Please complete the survey and return it by -----------98. If you have already completed and returned your questionnaire, please disregard this note.

If you have any questions, please contact our resource person, Dr. Kathryn Keim, Tel: (405) 744-8293.

APPENDIX J

COVER LETTER FOR PILOT STUDY: DELPHI ROUND 2

Monday, April 06, 1998

Dear Dr/Ms.   :

We are kindly requesting you to pilot the enclosed 1) Cover letter, 2) Definitions for the study, 3) Enclosures 3, 4, and 5 for responses and definitions generated and 4) Enclosures 6, 7, and 8 for Delphi Questionnaire Round 2.

Remark on the format, clarity and correctness of the letter, instruction for filling out the survey and the Enclosures. Any other comments will be appreciated.
Please complete the pilot and return it by Thursday, April 09, 1998

Thank you for your cooperation.

Yours sincerely,

Dr. Keim   Betty Wakou
Major advisor.   Graduate Student.

APPENDIX K

DELPHI ROUND 2 QUESTIONNAIRE

Delphi Questionnaire Round 2

ENCLOSURE 1

Personal Attributes and Rating by Importance of Personal Attributes Necessary for EFNEP Paraprofessionals.

Please rate each personal attribute according to importance by circling number (see rating scale below).

A	B						C
Personal Attributes Necessary for Paraprofessionals	**Your Rating of the Attribute**						**IF N/A, Why?**
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Basic knowledge of nutrition	5	4	3	2	1	N/A	
Bilingual	5	4	3	2	1	N/A	
Communication skills	5	4	3	2	1	N/A	
Compassionate	5	4	3	2	1	N/A	
Courageous	5	4	3	2	1	N/A	
Creative/innovative	5	4	3	2	1	N/A	
Credible	5	4	3	2	1	N/A	
Cultural awareness	5	4	3	2	1	N/A	

The Rating Scale is:
- 5 = Very Important (VI)
- 4 = Important (I)
- 3 = Moderately Important (MI)
- 2 = Slightly Important (SI)
- 1 = Not Important (NI)
- N/A = Not Applicable

Personal Attributes and Rating by Importance of Personal Attributes Necessary for EFNEP Paraprofessionals.

Please rate each personal attribute according to importance by circling one number (see rating scale below).

A Personal Attributes Necessary for Paraprofessionals	B Your Rating of the Attribute VI I MI SI NI N/A 5 4 3 2 1	C IF N/A, Why?
Dependable/reliable	5 4 3 2 1 N/A	
Empathetic	5 4 3 2 1 N/A	
Empowerment	5 4 3 2 1 N/A	
Encouraging	5 4 3 2 1 N/A	
Experience and ability working with adults/youth/children	5 4 3 2 1 N/A	
Experience running a household	5 4 3 2 1 N/A	
Flexible/adaptable	5 4 3 2 1 N/A	
Firm/persistence	5 4 3 2 1 N/A	
Friendly	5 4 3 2 1 N/A	
Honest/trustworthy	5 4 3 2 1 N/A	

The Rating Scale is:
   5 = Very Important (VI)
   4 = Important (I)
   3 = Moderately Important (MI)
   2 = Slightly Important (SI)
   1 = Not Important (NI)
   N/A = Not Applicable

Personal Attributes and Rating by Importance of Personal Attributes
Necessary for EFNEP Paraprofessionals.

Please rate each personal attribute according to importance by circling one number (see rating scale below).

A	B						C
Personal Attributes Necessary for Paraprofessionals	Your Rating of the Attribute						IF N/A, Why?
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Indigenous quality	5	4	3	2	1	N/A	
Interest in food, health, & nutrition	5	4	3	2	1	N/A	
Interest in helping people	5	4	3	2	1	N/A	
Interpersonal/good people skills	5	4	3	2	1	N/A	
Knowledge of community resources	5	4	3	2	1	N/A	
Listening skills	5	4	3	2	1	N/A	
Loyal	5	4	3	2	1	N/A	
Non-judgmental	5	4	3	2	1	N/A	
Open-minded	5	4	3	2	1	N/A	
Organizational skills	5	4	3	2	1	N/A	

The Rating Scale is:
  5 = Very Important (VI)
  4 = Important (I)
  3 = Moderately Important (MI)
  2 = Slightly Important (SI)
  1 = Not Important (NI)
  N/A = Not Applicable

Personal Attributes and Rating by Importance of Personal Attributes
Necessary for EFNEP Paraprofessionals.

Please rate each personal attribute according to importance by circling one number (see rating scale below).

A	B						C
Personal Attributes Necessary for Paraprofessionals	Your Rating of the Attribute						IF N/A, Why?
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Patience	5	4	3	2	1	N/A	
Persuasive abilities	5	4	3	2	1	N/A	
Positive attitude	5	4	3	2	1	N/A	
Positive role model	5	4	3	2	1	N/A	
Previous work experience	5	4	3	2	1	N/A	
Problem solving skills	5	4	3	2	1	N/A	
Punctual/timely	5	4	3	2	1	N/A	
Respectful	5	4	3	2	1	N/A	
Self-betterment	5	4	3	2	1	N/A	
Self-confidence	5	4	3	2	1	N/A	

The Rating Scale is:
   5 = Very Important (VI)
   4 = Important (I)
   3 = Moderately Important (MI)
   2 = Slightly Important (SI)
   1 = Not Important (NI)
   N/A = Not Applicable

Personal Attributes and Rating by Importance of Personal Attributes Necessary for EFNEP Paraprofessionals.

Please rate each personal attribute according to importance by circling one number (see rating scale below).

A	B						C
Personal Attributes Necessary for Paraprofessionals	Your Rating of the Attribute						IF N/A, Why?
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Patience	5	4	3	2	1	N/A	
Persuasive abilities	5	4	3	2	1	N/A	
Positive attitude	5	4	3	2	1	N/A	
Positive role model	5	4	3	2	1	N/A	
Previous work experience	5	4	3	2	1	N/A	
Problem solving skills	5	4	3	2	1	N/A	
Punctual/timely	5	4	3	2	1	N/A	
Respectful	5	4	3	2	1	N/A	
Self-betterment	5	4	3	2	1	N/A	
Self-confidence	5	4	3	2	1	N/A	

The Rating Scale is:
   5 = Very Important (VI)
   4 = Important (I)
   3 = Moderately Important (MI)
   2 = Slightly Important (SI)
   1 = Not Important (NI)
   N/A = Not Applicable

Personal Attributes and Rating by Importance of Personal Attributes Necessary for EFNEP Paraprofessionals.

Please rate each personal attribute according to importance by circling one number (see rating scale below).

A	B		C
Personal Attributes Necessary for Paraprofessionals	Your Rating of the Attribute VI I MI SI NI N/A 5 4 3 2 1		IF N/A, Why?
Self-starter/ Independent worker	5 4 3 2 1 N/A		
Self-supporting	5 4 3 2 1 N/A		
Sense of humor	5 4 3 2 1 N/A		
Sincere	5 4 3 2 1 N/A		
Social security card	5 4 3 2 1 N/A		
Sound health	5 4 3 2 1 N/A		
Strong work ethic	5 4 3 2 1 N/A		
Team player	5 4 3 2 1 N/A		
Well-groomed	5 4 3 2 1 N/A		
Work with diverse audience	5 4 3 2 1 N/A		

The Rating Scale is:
   5 = Very Important (VI)
   4 = Important (I)
   3 = Moderately Important (MI)
   2 = Slightly Important (SI)
   1 = Not Important (NI)
   N/A = Not Applicable

Delphi Questionnaire Round 2

ENCLOSURE 2

Job Competencies Prior to Hire and Rating by Importance of Competencies Necessary for EFNEP Paraprofessionals.

Please rate each job competency according to importance by circling one number (see rating scale below).

A	B						C
Job Competencies Prior To Hire Necessary For Paraprofessionals	**Your Rating Of the Competency**						**If N/A, Why?**
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Ability to Work With People	5	4	3	2	1	N/A	
Basic Knowledge of Food and Nutrition	5	4	3	2	1	N/A	
Basic Math Skills	5	4	3	2	1	N/A	
Bilingual	5	4	3	2	1	N/A	
Communication Skills	5	4	3	2	1	N/A	
Compassionate	5	4	3	2	1	N/A	
Confidentiality	5	4	3	2	1	N/A	
Computer Skills	5	4	3	2	1	N/A	

The Rating Scale is:
5 = Very Important (VI)
4 = Important (I)
3 = Moderately Important (MI)
2 = Slightly Important (SI)
1 = Not Important (NI)
N/A = Not Applicable

Job Competencies Prior to Hire and Rating by Importance of Competencies Necessary for EFNEP Paraprofessionals.

Please rate each job competency according to importance by circling one number (see rating scale below).

A	B						C
Job Competencies Prior To Hire Necessary For Paraprofessionals	**Your Rating Of the Competency**						**If N/A, Why?**
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Creative/Innovative	5	4	3	2	1	N/A	
Desire to learn	5	4	3	2	1	N/A	
Driving Car Skills	5	4	3	2	1	N/A	
Education Competence/ Qualification	5	4	3	2	1	N/A	
Empathetic	5	4	3	2	1	N/A	
Encouraging	5	4	3	2	1	N/A	
Experience and Ability Working With Adults/Youth/Children	5	4	3	2	1	N/A	
Flexible/Adaptable	5	4	3	2	1	N/A	
Follows/Takes Directions	5	4	3	2	1	N/A	
Honesty/Trustworthy	5	4	3	2	1	N/A	

The Rating Scale is:

5 = Very Important (VI)

4 = Important (I)

3 = Moderately Important (MI)

2 = Slightly Important (SI)

1 = Not Important (NI)

N/A = Not Applicable

Job Competencies Prior to Hire and Rating by Importance of Competencies Necessary for EFNEP Paraprofessionals.

Please rate each job competency according to importance by circling one number (see rating scale below).

A	B						C
Job Competencies Prior To Hire Necessary For Paraprofessionals	**Your Rating Of the Competency**						**If N/A, Why?**
	VI N/A 5	I 4	MI 3	SI 2	NI 1		
Indigenous	5	4	3	2	1	N/A	
Interest in Food and Nutrition	5	4	3	2	1	N/A	
Interest in Helping People	5	4	3	2	1	N/A	
Knowledge of Community Resources	5	4	3	2	1	N/A	
Knowledge of Role and Limitation of Program/Agency	5	4	3	2	1	N/A	
Know and Understand Target Area & Audience	5	4	3	2	1	N/A	
Know Rules as an Employee	5	4	3	2	1	N/A	
Listening and Questioning Skills	5	4	3	2	1	N/A	
Organizational Skills	5	4	3	2	1	N/A	
Positive Attitude	5	4	3	2	1	N/A	

The Rating Scale is:
5 = Very Important (VI)
4 = Important (I)
3 = Moderately Important (MI)
2 = Slightly Important (SI)
1 = Not Important (NI)
N/A = Not Applicable

Job Competencies Prior to Hire and Rating by Importance of Competencies Necessary for EFNEP Paraprofessionals.

Please Rate Each Job Competency According To Importance by circling one number (see rating scale below).

A	B						C
Job Competencies Prior To Hire Necessary For Paraprofessionals	**Your Rating Of the Competency**						**If N/A, Why?**
	VI N/A 5	I 4	MI 3	SI 2	NI 1		
Previous Work Experience	5	4	3	2	1	N/A	
Problem Solving Skills	5	4	3	2	1	N/A	
Punctual/Timely	5	4	3	2	1	N/A	
Physically Able	5	4	3	2	1	N/A	
Read and Write Well	5	4	3	2	1	N/A	
Record Keeping Skills	5	4	3	2	1	N/A	
Recruitment Skills	5	4	3	2	1	N/A	
Respectful	5	4	3	2	1	N/A	
Self-confident	5	4	3	2	1	N/A	

The Rating Scale is:
5 = Very Important (VI)
4 = Important (I)
3 = Moderately Important (MI)
2 = Slightly Important (SI)
1 = Not Important (NI)
N/A = Not Applicable

Job Competencies Prior to Hire and Rating by Importance of Competencies Necessary for EFNEP Paraprofessionals.

Please rate each job competency according to importance by circling one number (see rating scale below).

A	B						C
Job Competencies Prior To Hire Necessary For Paraprofessionals	Your Rating Of the Competency						If N/A, Why?
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Self-starter/ Independent Worker	5	4	3	2	1	N/A	
Strong Work Ethic	5	4	3	2	1	N/A	
Teachable	5	4	3	2	1	N/A	
Team Player	5	4	3	2	1	N/A	
Work With Diverse Audience	5	4	3	2	1	N/A	

The Rating Scale is:
5 = Very Important (VI)
4 = Important (I)
3 = Moderately Important (MI)
2 = Slightly Important (SI)
1 = Not Important (NI)
N/A = Not Applicable

Delphi Questionnaire Round 2

ENCLOSURE 3

Job Competencies after Training and Rating by Importance.

Please rate each job competency according to importance by circling the number (see rating scale below).

A	B						C
Job Competencies After Training Necessary For Paraprofessionals	Your Rating Of The Competency						If N/A Why?
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Adult Teaching	5	4	3	2	1	N/A	
Application Of Varied Teaching Methods	5	4	3	2	1	N/A	
Basic Math Skills	5	4	3	2	1	N/A	
Basic Teaching Skills	5	4	3	2	1	N/A	
Comprehend Research	5	4	3	2	1	N/A	
Communication Skills	5	4	3	2	1	N/A	
Computer and Phone Skills	5	4	3	2	1	N/A	
Driving Skills	5	4	3	2	1	N/A	

The Rating Scale is:
- 5 = Very Important (VI)
- 4 = Important (I)
- 3 = Moderately Important (MI)
- 2 = Slightly Important (SI)
- 1 = Not important (NI)
- N/A = Not Applicable

Job Competencies after Training and Rating by Importance.

Please rate each job competency according to importance by circling number (see rating scale below).

A	B						C
Job Competencies After Training Necessary For Paraprofessionals	**Your Rating Of The Competency**						**If N/A Why?**
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Flexible/Adaptable	5	4	3	2	1	N/A	
Goal Setting	5	4	3	2	1	N/A	
Group Teaching Skills	5	4	3	2	1	N/A	
Interest in Food and Nutrition	5	4	3	2	1	N/A	
Interpersonal/People Skills	5	4	3	2	1	N/A	
Knowledge of Community Resources	5	4	3	2	1	N/A	
Knowledge of Curriculum	5	4	3	2	1	N/A	
Knowledge of Role and Limitation of Program/Agency	5	4	3	2	1	N/A	
Knowledge of Rules to be an Employee	5	4	3	2	1	N/A	
Know and Understand Target Area and Audience	5	4	3	2	1	N/A	

The Rating Scale is:

    5 = Very Important (VI)
    4 = Important (I)
    3 = Moderately Important (MI)
    2 = Slightly Important (SI)
    1 = Not important (NI)
    N/A = Not Applicable

Job Competencies after Training and Rating by Importance.

Please Rate Each Job Competency According To Importance.

A	B						C
Job Competencies After Training Necessary For Paraprofessionals	Your Rating Of The Competency						If N/A Why?
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Map Reading	5	4	3	2	1	N/A	
Non-judgmental	5	4	3	2	1	N/A	
One-to-one Teaching Skills	5	4	3	2	1	N/A	
Organizational Skills	5	4	3	2	1	N/A	
Personal Safety Skills	5	4	3	2	1	N/A	
Positive Attitude	5	4	3	2	1	N/A	
Previous Work Experience	5	4	3	2	1	N/A	
Positive Attitude	5	4	3	2	1	N/A	
Previous Work Experience	5	4	3	2	1	N/A	

The Rating Scale is:
5 = Very Important (VI)
4 = Important (I)
3 = Moderately Important (MI)
2 = Slightly important (SI)
1 = Not important (NI)
N/A = Not Applicable

Job Competencies after Training and Rating by Importance.

Please rate each job competency according to importance by circling number (see rating scale below).

A	B						C
Job Competencies after Training Necessary For Paraprofessionals	**Your Rating Of The Competency**						**If N/A Why?**
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Problem Solving	5	4	3	2	1	N/A	
Read and Write Well	5	4	3	2	1	N/A	
Record Keeping Skills	5	4	3	2	1	N/A	
Recruitment Skills	5	4	3	2	1	N/A	
Reporting Skills	5	4	3	2	1	N/A	
Self-confidence	5	4	3	2	1	N/A	
Self-starter/ Independent	5	4	3	2	1	N/A	
Teaching Skills	5	4	3	2	1	N/A	

The Rating Scale is:
- 5 = Very Important (VI)
- 4 = Important (I)
- 3 = Moderately Important (MI)
- 2 = Slightly Important (SI)
- 1 = Not important (NI)
- N/A = Not Applicable

Job Competencies after Training and Rating by Importance.

Please rate each job competency according to importance by circling number (see rating scale below).

A	B						C
Job Competencies After Training Necessary For Paraprofessionals	Your Rating Of The Competency						If N/A Why?
	VI 5	I 4	MI 3	SI 2	NI 1	N/A	
Team Player	5	4	3	2	1	N/A	
Understand and Use Facilitative Education	5	4	3	2	1	N/A	
Use and Care of Office Equipment	5	4	3	2	1	N/A	
Well-groomed	5	4	3	2	1	N/A	
Work With Diverse Audience	5	4	3	2	1	N/A	

The Rating Scale is:
5 = Very Important (VI)
4 = Important (I)
3 = Moderately Important (MI)
2 = Slightly Important (SI)
1 = Not important (NI)
N/A = Not Applicable

APPENDIX L

COVER LETTER FOR DELPHI ROUND 2

⚫OSU

MEMORANDUM

May 19, 1998

Dear Ms.

We appreciate the information you have given us so far and the time and effort you have contributed while completing the Delphi Round 1 survey. We have compiled all of the responses and have enclosed the Delphi Round 2 survey.

The purpose of the Delphi Round 2 survey is to provide you the opportunity to rate to how important you feel each generated attribute or competency is for job success of an EFNEP paraprofessional. You are also asked to give your reasons if you feel the attribute or competency listed does not apply.

Again it is essential that you respond to the second survey so that the important job characteristics for hiring and training EFNEP paraprofessionals can be identified. After the third and final round the study results will be sent.

Please complete the survey and return it in the enclosed postage paid self-addressed envelope.

The definitions used in the Delphi Study are listed below:
- **Personal attributes** may include values, beliefs, attitudes, interests, or behaviors an EFNEP paraprofessionals already has before being hired.

- **Job competencies** may relate to knowledge and skills necessary for a paraprofessional to have before being hired, and after completing an orientation in-service and before working with EFNEP participants.

Please consider carefully whether the particular characteristic listed on the Round 2 survey are an <u>attribute</u> or <u>job competency</u> or neither.

An INFORMATION booklet has been included to explain how items on the second survey were chosen. You may refer to them if you wish.

Bringing Dreams to Life

The Campaign for OSU

175

Please proceed to complete **Delphi Questionnaire Round 2 enclosures.**

Enclosure 1: Personal Attributes and Rating by Importance.
Enclosure 2: Job Competencies Prior to Hire and Rating by Importance.
Enclosure 3: Job Competencies after Training and Rating by Importance.

Directions to Complete Round 2 Delphi Questionnaire

You are being requested to review and revise (if need be) and rate the compiled responses.

1. Please read all the responses in Column A of Enclosures 1, 2 and 3.
2. Indicate how important you feel each characteristic is for a paraprofessional to possess to be successful on the job (in column B) of Enclosures 1, 2 and 3.

The Rating Scale is:
   5 = Very Important
   4 = Important
   3 = Moderately Important
   2 = Slightly Important
   1 = Not Important
   Not Applicable = N/A

3. You have the option of stating your reason if you think a characteristic is not applicable as an attribute or a competency in Column C, of Enclosures 1, 2 and 3.

Thank you very much for your cooperation.

Sincerely yours,

Kathryn S. Keim, Ph.D., RD, LD   Glenna Williams, EdD   Betty Wakou
Asst. Professor, Nutritional   State EFNEP Coordinator   MS Graduate Student
Sciences   Fulbright Grantee
kkathry@okway.okstate.edu

APPENDIX M

DEFINITIONS GENERATED ON DELPHI ROUND 1

INFORMATION 1

Personal Attributes, Subject That Mentioned Attribute and Definitions Generated from Delphi Round 1: State and County EFNEP Professionals (n=36).

Personal Attributes Necessary For EFNEP Paraprofessionals	Subject Code That Mentioned	Definition
(a) Basic Knowledge of Nutrition	(b) *CP 07, 35*	(c) ◊ Already has some basic food preparation, meal planning, food shopping, etc.
Bilingual	SP 44 *CP 05*	◊ Able to speak language of the participants and employers.
Communication Skills	SP 21, 30, 30, 32, 38, 41 *CP 05, 07, 08, 14, 25, 35, 40, 41, 42*	◊ Basic communication skills (oral and written) for purposes of teaching and communication among coworkers and participants, superiors, and agency personnel.
Compassionate	SP 10, 11 *CP 11*	◊ Being sympathetic with the participants.
Computer Skills	SP 36	◊ Able to enter data into computer. Shortens training time.
Courageous	*CP 35*	◊ Have to courage to work in certain environments.
Creative/Innovative	SP 04, 21, 38	◊ Develop a variety of ways to handle difficult and different concepts in teaching audiences with limited resources and in different situations.
Credible	SP 02, 41	◊ To serve as role models to participants in healthy eating and wellness practices.
Cultural Awareness	*CP 05, 05, 14*	◊ Be aware of participants and their cultural ways.

SP State Professionals' Responses
CP County Professionals' Responses

178

Personal Attributes, Subject That Mentioned Attribute and Definitions Generated from Delphi
Round 1: State and County EFNEP Professionals (n=36).

Personal Attributes Necessary For EFNEP Paraprofessionals	Subject Code That Mentioned	Definition
Dependable/Reliable	SP 07, 19, 38 CP 02, 07, 08, 14, 25, 27, 28, 28, 28, 42	◊ Able to work independently and consistently.
Empathetic	SP 07 CP 01, 11, 28, 29, 34, 38	◊ Able to understand participant's situation.
Empowerment	CP 35, 35, 35	◊ Be able to enable, enhance, and empower families to build on the strengths they have.
Encouraging	CP 42	◊ Able to encourage participants to create self-esteem
Experience and Ability Working With Adults and Children	CP 07, 24, 38	◊ Work with youth and children.
Experience Running a Household	CP07	◊ Have experience with family and managing a household.
Flexible/Adaptable	SP 07, 21, 32, 44 CP 13, 21, 25, 28, 29, 42	◊ Able to make changes in schedule on short notice (deal with "unanticipated" events).
Firm/Persistence	CP 27, 28, 34	◊ Stand firm and continue the education process.
Friendly	SP 07,10. 11.19. 30 CP 14, 21, 25, 27, 28, 29, 29, 34, 35, 41, 42, 42	◊ Able to help, show kindness, caring, and outgoing.
Honest/Trustworthy	SP 07. 14, 19, 30, 38, 38 CP 07, 08, 13, 14, 27, 28, 34, 35, 41, 41	◊ Do not cheat on mileage, working away from office, schedules, or delivering program. ◊ Be able to keep participant's information confidential.

SP State Professionals' Responses
CP County Professionals' Responses

Personal Attributes. Subject That Mentioned Attribute and Definitions Generated from Delphi Round 1: State and County EFNEP Professionals (n=36).

Personal Attributes Necessary For EFNEP Paraprofessionals	Subject Code That Mentioned	Definition
Indigenous Quality	SP 41 CP 38	◊ Able to Share Life Experience
Interest in Food, Health & Nutrition	SP 02, 04. 10, 11, 19, 21 CP10, 12, 12, 24, 24, 25, 38, 41	◊ Interest in food preparation, food selection and purchasing. etc. ◊ Interest in good health
Interest in Helping People	SP 02. 04, 11, 32 CP 01, 10, 24, 28, 29, 34	◊ A degree of interest in helping people help themselves through education.
Interpersonal/People Skills	SP 30, 44 CP14, 28, 29, 33, 41, 41	◊ Able to deal with participants and coworkers.
Knowledge of Community Resources	SP11, 11 CP21, 21, 27, 38	◊ Be familiar with and understand community resources for referral and meeting with participants.
Listening Skills	SP 07 CP 07, 28. 34	◊ Able to listen to participants, coworkers, and supervisors.
Loyal	CP35	◊ Be able to promote program goals.
Non-judgmental	SP 04. 07. 10. 10. 19, 21. 32. 38 CP 05, 12, 24, 24, 27, 28, 33, 34, 41, 42	◊ Able to accept/recognize diversity in people's beliefs and values. and know all people have a right to equal treatment.
Open-minded	SP 21	◊ Be open to working environment.
Organizational Skills	SP 21 CP21, 28. 33, 40	◊ Be orderly, systematic in scheduling. making presentations. record keeping and reporting.
Patience	SP 10	◊ Able to accommodate/tolerate challenging and frustrating situations

SP State Professionals' Responses
CP County Professionals' Responses

Personal Attributes. Subject That Mentioned Attribute and Definitions Generated from Delphi
Round 1: State and County EFNEP Professionals (n=36).

Personal Attributes Necessary For EFNEP Paraprofessionals	Subject Code That Mentioned	Definition
Persuasive Abilities	*CP41*	◊ Able to recruit and motivate participants
Positive Attitude	SP 19 *CP 07, 08, 10, 25, 28, 38, 41, 42*	◊ Be positive about the job to make it easier with team.
Positive Role Model	CP07, 41	◊ Be a good example to participants.
Previous Work Experience	SP 44	◊ Have related or non-related previous working experience
Problem Solving Skills	*CP 11, 28, 42*	◊ Able to solve problems which have no clear cut solutions.
Punctual/Timely	SP 11, 19, 32	◊ Able to meet participants, turn in reports, and attend meetings on time. ◊ Manage time well.
Respectful	SP 07, 19, 21, 32 *CP 38*	◊ Respect all people, be courteous.
Self-betterment	*CP 28*	◊ Be interested in self-betterment.
Self-confidence	SP 21, 38 *CP 01, 01, 10, 10, 25, 40, 40, 41*	◊ Be sure of self, have self esteem.
Self-starter/ Independent worker	SP 04, 07, 11, 21, 30, 38, 44, 44 *CP 01, 05, 10, 11, 12, 13, 13, 14, 27, 28, 28, 28, 34, 34, 35, 40, 40, 41, 42*	◊ Have initiative, enthusiasm, work independently, be self-motivated, monitor self, be self-directed. Be able to work in isolated conditions without supervision.
Self-supporting	*CP10*	◊ Be self-supporting as low pay has few rewards

SP State Professionals' Responses
CP County Professionals' Responses

Personal Attributes, Subject That Mentioned Attribute and Definitions Generated from Delphi Round 1: State and County EFNEP Professionals (n=36).

Personal Attributes Necessary For EFNEP Paraprofessionals	Subject Code That Mentioned	Definition
Sense of Humor	SP 38 CP38	◊ Able to joke. make fun to reduce sense of frustration, maintain audience.
Sincere	SP 19. 38	◊ Genuine, not a phony.
Social Security Card	SP 44	◊ Possess social security card and be eligible to work.
Sound Health	SP 11, 11, 21. 41	◊ Physically and mentally able to do the job (teach and work).
Strong Work Ethic	SP 04. 11 CP 01, 12, 14, 28	◊ Works hard.
Team Player	SP 11. 38 CP 12, 21, 28, 34	◊ Able to work with people in the organization and outside the organization as a team member.
Value Education	SP 02. 04. 10. 44 CP 01, 12, 13, 21, 42	◊ Hold high value or desire for education. accept continued training so s to instill this principle among the participants.
Well-groomed	SP 07. 32 CP 08	◊ Clean and neat in appearance.
Work With Diverse Audience	SP 11. 30. 38 CP 01, 05, 24, 38	◊ Able to develop rapport. to be culturally sensitive. and work with low-income families from diverse backgrounds.

SP State Professionals' Responses
CP County Professionals' Responses

INFORMATION 2

Job Competencies Prior to Hire. Subject That Mentioned and Definitions Generated From Delphi Round 1: State And County EFNEP Professionals (n=36).

Job Competencies Prior to Hire Necessary For Paraprofessionals	Subject Code No. That Mentioned	Definition
(a)	(b)	(c)
Ability To Work With People	SP 19	◊ Work with children
Basic Knowledge of Food and Nutrition .	SP 10. 11. 11. 21. 36. 44 CP 07, 10, 10, 11, 12, 12, 13, 14, 14, 14, 21. 24, 24, 24, 25, 28. 38	◊ Already has basic food preparation. meal planning, food shopping. budgeting, etc.
Basic Math Skills	SP 07. 10. 41, 44 CP 08, 14, 34, 40, 41	◊ Able to add. subtract. multiply and divide.
Bilingual	SP 44	◊ Able to speak language of participants and employers.
Communication Skills	SP 02. 04. 10. 11. 19. 21. 36. 41 CP 01, 10, 12, 13, 14. 21, 24, 28, 33, 34. 35, 40, 42	◊ Basic communication (oral and written) skills for purposes of teaching and communication among coworkers and participants . superiors and agency personnel. ◊ Be able to speak in public.
Compassionate	CP 35	◊ Being sympathetic with participants.
Computer Skills	SP 19 CP 13, 28	◊ Able to use computer. e.g. data entry.
Confidentiality	SP 19	◊ Able to keep family information confidential.
Creative/Innovative	SP 19 CP 28, 35	◊ Develop a variety of ways to handle difficult and different concepts in teaching audiences with limited resources and in different situations.

SP State Professionals' Responses
CP County Professionals' Responses

Job Competencies Prior to Hire, Subject That Mentioned and Definitions Generated From Delphi Round 1: State And County EFNEP Professionals (n=36).

Job Competencies Prior to Hire Necessary For Paraprofessionals	Subject Code No. That Mentioned	Definition
Creative/Innovative	SP 19 CP 28, 35	◊ Develop a variety of ways to handle difficult and different concepts in teaching audiences with limited resources and in different situations.
Desire to Learn	CP 01	◊ Interest in learning.
Driving Car Skills	SP 19, 38, 44 CP 29, 33, 34	◊ Be able to drive and have a driver's license.
Education Competence/ Qualification	SP 11, 41 CP 05, 12, 28, 34	◊ At least GED, high school and score 100% on civil service.
Empathetic	CP 35	◊ Able to understand participants' situation.
Encouraging	CP 42	◊ Able to motivate.
Experience and Ability Working With Adults, Youth And Children	CP 10, 11, 21, 25, 38, 42	◊ Ability to work with adults, youth and children.
Flexible/Adaptable	SP 41 CP 01, 21, 41, 42, 42	◊ Able to make changes in schedule on short notice (deal with the "unanticipated" events).
Follows/Takes Directions	SP 41 CP 40, 42	◊ Able to read and follow map directions to meet families.
Honesty/Trustworthy	CP 35	◊ Do not cheat on mileage, working away from office, schedules, or delivering program. ◊ Be able to keep participant's information confidential.

SP State Professionals' Responses
CP County Professionals' Responses

Job Competencies Prior to Hire, Subject That Mentioned and Definitions Generated From Delphi Round 1: State And County EFNEP Professionals (n=36).

Job Competencies Prior to Hire Necessary For Paraprofessionals	Subject Code No. That Mentioned	Definition
Indigenous	*CP 35, 38*	◊ Has experienced life as a limited resource person and can share it. "I've been there and made it".
Interest in Food and Nutrition	SP 07, 32, 32 *CP 21, 28*	◊ Interest in food preparation, food selection and purchasing, etc.
Interest in Helping People.	*CP 21*	◊ A degree of interest in helping people help themselves through education.
Knowledge of Community Resources	*CP 05, 28, 28, 38*	◊ Familiar with and understand community resources for referral and meeting enrolled participant needs.
Knowledge of Role and Limitation of Program/Agency	*CP 36* ...	◊ To know their role as nutrition advisor, where to get professional help and to say " I don't know" with ease and basic working f community agencies.
Know and Understand Target Area & Audience	*CP 07, 28, 28, 34*	◊ Know area and where to get participants.
Know Rules as an Employee	*CP 28, 41*	◊ Able to follow university, extension, and EFNEP rules and guidelines.
Listening and Questioning Skills	SP 04 *CP 08*	◊ Able to take oral directions and ask effective questions

SP State Professionals' Responses
CP County Professionals' Responses

Job Competencies Prior to Hire, Subject That Mentioned and Definitions Generated From Delphi Round 1: State And County EFNEP Professionals (n=36).

Job Competencies Prior to Hire Necessary For Paraprofessionals	Subject Code No. That Mentioned	Definition
Organizational Skills	SP 04, 07, 07, 10, 10 19, 32, 38 *CP 01, 11, 12, 13, 21, 34, 38, 41, 41, 42*	◊ Able to organize workload, schedules, and prioritize.
Positive Attitude	SP 07 *CP 25, 35*	◊ Be positive about the job to make it easier with team.
Previous Work Experience	SP 11, 36, 41 *CP 10*	◊ Have some related or non-related community-based work experience.
Problem Solving Skills	SP 04 *CP 14, 28, 28, 41, 41, 41*	◊ Able to solve problems which have no clear-cut solutions.
Punctual/Timely	SP 38 *CP 25, 29, 34, 38*	◊ Able to meet participants, turns in reports, and attends meetings on time. Manage time well.
Read and Write Well	SP 04, 07, 21, 32, 36, 38 *CP 01, 08, 08, 13, 14, 33, 33, 35, 40, 40, 41, 41*	◊ Able to read and understand materials to be used and able to complete paperwork.
Record Keeping Skills	*CP 01, 07, 08, 12, 41, 42*	◊ Able to complete and maintain paperwork and records.
Recruitment Skills	*CP 24, 28, 28, 35, 35, 38, 42*	◊ Able to approach people with ease.
Respectful	*CP 28, 42*	◊ Respect all people, be courteous.
Self-confident	*CP 25*	◊ Be sure of self, have self-esteem.

SP State Professionals' Responses
CP County Professionals' Responses

Job Competencies Prior to Hire, Subject That Mentioned and Definitions Generated From Delphi Round 1: State And County EFNEP Professionals (n=36).

Job Competencies Prior to Hire Necessary For Paraprofessionals	Subject Code No. That Mentioned	Definition
Self-starter/ Independent Worker	SP 04, 38 *CP 01, 24, 38, 38, 41, 41, 41*	◊ Have initiative, enthusiasm, work independently. ◊ Be self-motivated, monitor self or be self-directed. ◊ Able to work in isolated conditions without supervision.
Physically Able	*CP 21, 34*	◊ Able to lift 25-50 lb.
Strong Work Ethic	SP 19, 41 *CP 07, 25*	◊ Works hard.
Teachable	*CP 08, 08, 29*	◊ Able to grasp subject matter when it is presented. ◊ Able to take training and lesson materials.
Team Player	SP 04, 19, 38, 41 *CP 21, 24, 35*	◊ Able to work with people in the organization and outside the organization as a team member.
Work With Diverse Audience	SP 04, 04, 07, 11, 21, 41 *CP 01, 10, 11, 25, 28*	◊ Able to develop rapport, be culturally sensitive, and work with low income families from diverse backgrounds.

SP State Professionals' Responses
CP County Professionals' Responses

INFORMATION 3

Job Competencies After Training, Subject That Mentioned and Definitions Generated
from Delphi Round 1: State and County EFNEP Professionals (n=36).

Job Competencies After Training Necessary For Paraprofessionals	Subject Code That Mentioned	Definition
(a) Adult Teaching	(b) CP 05, 40	(c) ◊ Able to teach adults.
Application of Varied Teaching Methods	SP 04, 04, 07, 07, 07, 07, 10, 21 CP 05, 05, 12, 13, 28, 35, 42	◊ Adapt teaching techniques and lessons basing on learners needs. Recognize strengths and culture of youths and adults.
Basic Math Skills	CP 42	◊ Able to add, subtract, multiply and divide.
Communication Skills	SP 11 CP 14, 24, 33, 33	◊ Basic communication skills for purposes of teaching and communication among coworkers and participants, superiors and agency personnel. ◊ Be able to speak in public.
Comprehend Research	SP 32, 44	◊ Able to recognize food and nutrition information changes with research findings.
Computer and Phone Skills	SP 32, 44 CP12, 24, 25	◊ Able to use computer, e.g. data entry.
Conduct a 24hr Food Recall	SP 04, 19, 32, 41, 44 CP 05, 25, 36, 38, 42	◊ Able to correctly interview, accurately record and obtain valid evaluation.
Driving Skills	CP 01, 27	◊ Have a car, be able to drive and have a driver's license.
Flexible/Adaptable	CP 01, 42	◊ Able to make changes in schedule on short notice (deal with the "unanticipated" events).

SP State Professionals' Responses
CP County Professionals' Responses

Job Competencies After Training. Subject That Mentioned and Definitions Generated from Delphi Round 1: State and County EFNEP Professionals (n=36).

Job Competencies After Training Necessary For Paraprofessionals	Subject Code That Mentioned	Definition
Goal setting	CP 08, 21	◊ Able to set goals and work to achieve them.
Group Teaching Skills	SP 04, 32, 36, 44	◊ Able to teach groups.
Interest in Food and Nutrition	CP 01, 01	◊ Interest in food preparation, food selection and purchasing, etc.
Interpersonal/People Skills	CP 27, 41	◊ Able to work with participants, supervisors, colleagues and agency personnel effectively and respectfully.
Knowledge of Community Resources	SP 02, 04, 19, 21, 38 CP 05, 08, 11, 21, 21,24, 25, 35, 36, 38	◊ Familiar with and understand community resources for referral and meeting enrolled participant needs.
Knowledge of Curriculum	SP 36, 36. CP 05, 05, 07, 07, 11, 13, 13, 13, 13, 14, 14, 14, 33, 34, 34, 35, 21, 24, 24, 25, 25, 27, 27, 27, 28, 29, 38, 38, 38, 38, 38, 40, 40, 40, 41, 41, 42, 42, 42, 42, 42, 42, 42, 42, 42	◊ Know the basic food preparation, meal planning, budgeting, food shopping, food hygiene, food selection, etc.
Knowledge of Role and Limitation of Program/Agency	SP 07, 19, 32, 32 CP 07, 13, 14, 14, 21, 22, 27, 28, 28, 29, 34, 35	◊ To know their role as nutrition educator: where to get help; and to say " I don't know" with ease.
Knowledge Of Rules To Be An Employee	SP 04	◊ Able to follow university, extension and EFNEP rules and guidelines.
Know and Understand Target Area and Audience	CP 05, 12	◊ Know and understand the participants. ◊ Know the areas where to recruit participants. ◊

SP State Professionals' Responses
CP County Professionals' Responses

Job Competencies After Training, Subject That Mentioned and Definitions Generated from Delphi Round 1: State and County EFNEP Professionals (n=36).

Job Competencies After Training Necessary For Paraprofessionals	Subject Code That Mentioned	Definition
Life Long Learning	SP 07. 07	◊ Recognize learning is ongoing and acknowledge research findings.
Map Reading	*CP 01, 42*	◊ Able to read and follow map directions to meet families.
Non-judgmental	*CP 07, 35*	◊ Able to accept/recognize diversity in people's beliefs and values, and know all people have a right to equal treatment.
One-to-one Teaching Skills	SP 32	◊ Able to teach individuals.
Organizational Skills	SP 07. 38 *CP 01, 38, 38, 42*	◊ Able to organize workload, schedules, prioritize.
Personal Safety Skills	SP 44 *CP 27, 42*	◊ Able to recognize a dangerous situation and leave it. ◊ Defensive driving.
Positive Attitude	*CP 27*	◊ Be positive about the job to make it easier with team.
Previous Work Experience	SP 21 *CP 21, 27*	◊ Have some related or non-related community-based work experience.
Problem Solving	*CP 01, 21*	◊ Able to solve problems which have no clear cut solutions.
Punctual/Timely	*CP 01*	◊ Able to meet participants, turn in reports, and attend meetings on time. Manage time well.
Read and Write Well	*CP 12*	◊ Able to read and understand materials to be used and able to complete paperwork.

SP State Professionals' Responses
CP County Professionals' Responses

Job Competencies After Training, Subject That Mentioned and Definitions Generated from Delphi Round 1: State and County EFNEP Professionals (n=36).

Job Competencies After Training Necessary For Paraprofessionals	Subject Code That Mentioned	Definition
Record Keeping Skills	SP 02, 04, 07, 11, 19, 21, 32, 41, 44 CP 05, 08, 14, 21, 24, 24, 25, 27, 27, 28, 34, 41, 42, 42	◊ Able to complete and maintain paperwork according to the EFNEP documentation system.
Recruitment Skills	SP 04, 11, 19, 38 CP 05, 11, 25, 27, 27, 28, 34, 41, 42, 42	◊ Know basics of recruiting new families and enrolling them in the program.
Reporting Skills	SP 19	◊ Able to make reports (ERS). 24hr recall.
Self-confidence	CP 28	◊ Be sure of self, have self-esteem.
Self-starter/ Independent	CP 27, 42	◊ Have initiative, enthusiasm, work independently. ◊ Be self-motivated, monitor self or be self-directed. ◊ Able to work in isolated conditions without supervision.
Teaching Skills	SP 02, 04, 11, 21, 38 CP 08, 10, 11, 21, 24, 25, 28, 33, 34, 35, 35, 41	◊ Able to clearly present subject matter to participants.
Team Player	CP 21, 24, 40	◊ Able to work with people in the organization and outside the organization as a team member.
Understand And Use Facilitative Education	SP 41, 41	◊
Use and Care of Office Equipment	SP 44 CP 34	◊ Handles teaching and office equipment carefully.

SP State Professionals' Responses
CP County Professionals' Responses

Job Competencies After Training. Subject That Mentioned and Definitions Generated from Delphi Round 1: State and County EFNEP Professionals (n=36).

Job Competencies After Training Necessary For Paraprofessionals	Subject Code That Mentioned	Definition
Well-groomed	CP 07	◊ Clean and neat in appearance.
Work With Diverse Audience	SP 21, 44 CP 10, 14, 24, 33, 35	◊ Able to develop rapport, be culturally sensitive, and work with low income families from diverse backgrounds.

SP State Professionals' Responses
CP County Professionals' Responses

APPENDIX N

REMINDER NOTE: DELPHI ROUND 2

Dear Delphi Study participant:

In the past few weeks you should have received a survey in the mail from the Nutritional Sciences Dept., Oklahoma State University concerning personal attributes and job competencies of EFNEP paraprofessionals.

If you have returned your survey already, we thank you for your cooperation. If you have not, we urge you to take a few moments to complete the survey and return it by June 06, 1998. **Your response is vital.** If you have questions, please contact Kathy Keim at 405-744-8293.

APPENDIX O

DELPHI ROUND 3 QUESTIONNAIRE

Delphi Questionnaire Round 3

ENCLOSURE 1

Personal Attributes and Rating by Importance.
Please circle each personal attribute according to importance by circling one number in column D (see rating at left bottom of page).

A Personal Attribute Necessary for Paraprofessionals	B Rank	C Mean Score	D Your New Rating of the Attribute 5 4 3 2 1 N/A
Dependable/reliable	1	4.79	5 4 3 2 1 N/A
Honest/trustworthy	2	4.76	5 4 3 2 1 N/A
Interpersonal/people skills	3	4.66	5 4 3 2 1 N/A
Self-starter/independent worker	4	4.57	5 4 3 2 1 N/A
Positive attitude	5	4.54	5 4 3 2 1 N/A
Non-judgmental	5	4.54	5 4 3 2 1 N/A
Respectful	7	4.51	5 4 3 2 1 N/A
Open-minded	8	4.49	5 4 3 2 1 N/A
Flexible/adaptable	9	4.35	5 4 3 2 1 N/A
Interest in health, food and nutrition	10	4.34	5 4 3 2 1 N/A
Friendly	11	4.32	5 4 3 2 1 N/A
Interest in helping people	12	4.29	5 4 3 2 1 N/A
Credible	13	4.26	5 4 3 2 1 N/A

The Rating Scale is:
5 = Very Important
4 = Important
3 = Moderately Important
2 = Slightly Important
1 = Not Important
N/A = Not Applicable

Personal Attributes and Rating by Importance.
Please circle each personal attribute according to importance by circling one number in column D (see rating at left bottom of page).

A	B	C	D					
Personal Attribute	**Rank**	**Mean Score**	**Your New Rating of the Attribute**					
			5	4	3	2	1	N/A
Strong work ethic	14	4.23	5	4	3	2	1	N/A
Ability to be confidential	14	4.23	5	4	3	2	1	N/A
Cultural awareness	16	4.2	5	4	3	2	1	N/A
Empathetic	17	4.18	5	4	3	2	1	N/A
Sincere	18	4.17	5	4	3	2	1	N/A
Positive role model	19	4.14	5	4	3	2	1	N/A
Desire to learn /value education	19	4.14	5	4	3	2	1	N/A
Encouraging	21	4.12	5	4	3	2	1	N/A
Patience	22	4.03	5	4	3	2	1	N/A
Compassionate	23	4	5	4	3	2	1	N/A
Empowerment	24	3.94	5	4	3	2	1	N/A
Self-confidence	25	3.91	5	4	3	2	1	N/A
Loyal	26	3.86	5	4	3	2	1	N/A
Ability to work with diverse audience	26	3.86	5	4	3	2	1	N/A
Creative/innovative	28	3.8	5	4	3	2	1	N/A
Sound health or physically able	29	3.77	5	4	3	2	1	N/A

The Rating Scale is:
5 = Very Important
4 = Important
3 = Moderately Important
2 = Slightly Important
1 = Not Important
N/A = Not Applicable

Personal Attributes and Rating by Importance.

Please circle each personal attribute according to importance by circling one number in column D (see rating at left bottom of page).

A	B	C	D					
Personal Attribute	Rank	Mean Score	Your New Rating of the Attribute					
			5	4	3	2	1	N/A
Well-groomed	30	3.74	5	4	3	2	1	N/A
Self-betterment	31	3.66	5	4	3	2	1	N/A
Sense of humor	32	3.57	5	4	3	2	1	N/A
Persuasive abilities	33	3.54	5	4	3	2	1	N/A
Firm/persistent	34	3.53	5	4	3	2	1	N/A
Courageous	35	3.49	5	4	3	2	1	N/A
Indigenous quality	36	3.14	5	4	3	2	1	N/A
Bilingual	37	2.11	5	4	3	2	1	N/A

The Rating Scale is:
5 = Very Important
4 = Important
3 = Moderately Important
2 = Slightly Important
1 = Not Important
N/A = Not Applicable

Delphi Questionnaire Round 3

ENCLOSURE 2

Job Competencies Prior to Hire and Rating by Importance.
*Please circle each job competency according to importance by circling one number in column
D (see rating at left bottom of page).*
Please write letter of category in column E (see categories at right bottom of page).

A	B	C	D	E
Job Competency Prior to Hire	Rank	Mean Score	Your New Rating of the Job Competency 5 4 3 2 1 N/A	Categorize the Job Competency
Ability to be taught/teachable	1	4.44	5 4 3 2 1 N/A	
Communication skills	2	4.34	5 4 3 2 1 N/A	
Follows/takes direction	2	4.34	5 4 3 2 1 N/A	
Ability to work with people	4	4.32	5 4 3 2 1 N/A	
Ability to be confidential	5	4.23	5 4 3 2 1 N/A	
Team player	6	4.05	5 4 3 2 1 N/A	
Punctual/timely	7	4.02	5 4 3 2 1 N/A	
Read and write well	8	3.8	5 4 3 2 1 N/A	
Ability to solve problems	8	3.8	5 4 3 2 1 N/A	
Organizational skills	10	3.71	5 4 3 2 1 N/A	
Listening skills	11	3.69	5 4 3 2 1 N/A	

The Rating Scale is:
5 = Very Important
4 = Important
3 = Moderately Important
2 = Slightly Important
1 = Not Important
N/A = Not Applicable

Job Competency Categories:
A = Communication Skills
B = Teaching Skills
C = Organizational Skills
D = Knowledge
E = Interpersonal Skills
F = Other

Job Competencies Prior to Hire and Rating by Importance.
Please circle each job competency according to importance by circling one number in column
D (see rating at left bottom of page).
Please write letter of category in column E (see categories at right bottom of page).

A	B	C	D		E
Job Competency Prior to Hire	Rank	Mean Score	Your New Rating of the Job Competency 5 4 3 2 1 N/A		Categorize the Job Competency
Ability to work with diverse Audience	12	3.63	5 4 3 2 1 N/A		
Ability to work with adults/youth/children	12	3.63	5 4 3 2 1 N/A		
Creative/innovative	14	3.54	5 4 3 2 1 N/A		
Know and understand target area and audience	15	3.46	5 4 3 2 1 N/A		
Phone skills	16	3.4	5 4 3 2 1 N/A		
Knowledge of community resources	17	3.34	5 4 3 2 1 N/A		
Basic math skills	18	3.26	5 4 3 2 1 N/A		
			5 4 3 2 1 N/A		
			5 4 3 2 1 N/A		
			5 4 3 2 1 N/A		
			5 4 3 2 1 N/A		

If some competencies are missing, please include them and give a rating and a category.

The Rating Scale is:
5 = Very Important
4 = Important
3 = Moderately Important
2 = Slightly Important
1 = Not Important
N/A = Not Applicable

Job Competency Categories:
A = Communication Skills
B = Teaching Skills
C = Organizational Skills
D = Knowledge
E = Interpersonal Skills
F = Other

Delphi Questionnaire Round 3

ENCLOSURE 3

Job Competencies after Training and Rating by Importance.

Please circle each job competency according to importance by circling one number in column D (see rating at left bottom of page).

Please write letter of category in column E (see categories at right bottom page).

A	B	C	D	E
Job Competency after Training	**Rank**	**Mean Score**	**Your Rating of the Job Competency** **5 4 3 2 1 N/A**	**Categorize the Job Competency**
Know and understand target area and audience	1	4.76	5 4 3 2 1 N/A	
Communication skills	2	4.74	5 4 3 2 1 N/A	
Knowledge of curriculum (Basic knowledge of subject matter)	3	4.65	5 4 3 2 1 N/A	
Knowledge of rules to be an employee	4	4.59	5 4 3 2 1 N/A	
Knowledge of role and limitation of program/agency	4	4.59	5 4 3 2 1 N/A	
Knowledge of community resources	6	4.47	5 4 3 2 1 N/A	
Basic teaching skills	6	4.47	5 4 3 2 1 N/A	
Adult teaching skills	8	4.44	5 4 3 2 1 N/A	
Interpersonal/people skills	8	4.44	5 4 3 2 1 N/A	
Ability to recruit/recruitment skills	10	4.41	5 4 3 2 1 N/A	
Ability to apply a variety of teaching methods	10	4.41	5 4 3 2 1 N/A	

The Rating Scale is:
5 = Very Important
4 = Important
3 = Moderately Important
2 = Slightly Important
1 = Not Important
N/A = Not Applicable

Job Competency Categories:
A = Communication Skills
B = Teaching Skills
C = Organizational Skills
D = Knowledge
E = Interpersonal Skills
F = Other

Job Competencies after Training and Rating by Importance.
Please circle each job competency according to importance by circling one number in column D
(see rating at left bottom of page).
Please write letter of category in column E (see categories at right bottom page).

A	B	C	D		E
Job Competency after Training	**Rank**	**Mean Score**	**Your Rating of the Job Competency** 5 4 3 2 1 N/A		**Categorize the Job Competency**
Team player	12	4.34	5 4 3 2 1 N/A		
One-to-one teaching skills	13	4.31	5 4 3 2 1 N/A		
Personal safety skills	14	4.29	5 4 3 2 1 N/A		
Group teaching skills	15	4.26	5 4 3 2 1 N/A		
Record keeping skills	15	4.26	5 4 3 2 1 N/A		
Ability to work with diverse audience	15	4.26	5 4 3 2 1 N/A		
Organizational skills	18	4.23	5 4 3 2 1 N/A		
Reporting skills	18	4.23	5 4 3 2 1 N/A		
Ability to set goals	20	4.2	5 4 3 2 1 N/A		
Punctual/timely	20	4.2	5 4 3 2 1 N/A		
Ability to solve problems	22	4.09	5 4 3 2 1 N/A		
Non-judgmental	23	4.08	5 4 3 2 1 N/A		
Flexible/adaptable	24	4.06	5 4 3 2 1 N/A		
Positive attitude towards work	25	3.94	5 4 3 2 1 N/A		
Ability to take care of office equipment and teaching materials	26	3.91	5 4 3 2 1 N/A		

The Rating Scale is:
5 = Very Important
4 = Important
3 = Moderately Important
2 = Slightly Important
1 = Not Important
N/A = Not Applicable

Job Competency Categories:
A = Communication Skills
B = Teaching Skills
C = Organizational Skills
D = Knowledge
E = Interpersonal Skills
F = Other

Job Competencies after Training and Rating by Importance.
Please circle each job competency according to importance by circling one number in column D
(see rating at left bottom of page).
Please write letter of category in column E (see categories at right bottom page).

A	B	C	D		E
Job Competency after Training	Rank	Mean Score	Your Rating of the Job Competency 5 4 3 2 1 N/A		Categorize the Job Competency
Creative /innovative	27	3.8	5 4 3 2 1 N/A		
Understand and use facilitative education	28	3.75	5 4 3 2 1 N/A		
Self-confidence/self-efficacy to be an educator	29	3.74	5 4 3 2 1 N/A		
Basic math skills	30	3.71	5 4 3 2 1 N/A		
Listening skills	31	3.69	5 4 3 2 1 N/A		
Questioning skills	31	3.69	5 4 3 2 1 N/A		
Read and write well	33	3.69	5 4 3 2 1 N/A		
Phone skills	34	3.4	5 4 3 2 1 N/A		
Computer skills	34	3.4	5 4 3 2 1 N/A		
Comprehend research	36	2.97	5 4 3 2 1 N/A		
Ability to conduct 24hr food recall			5 4 3 2 1 N/A		
Ability to interpret the results of the 24 hr food recalls			5 4 3 2 1 N/A		
Make initial and follow-up home visits to families			5 4 3 2 1 N/A		
Ability not to impart own belief system to participants			5 4 3 2 1 N/A		
Ability to bridge participant culture and that of professional			5 4 3 2 1 N/A		

The Rating Scale is:
5 = Very Important
4 = Important
3 = Moderately Important
2 = Slightly Important
1 = Not Important
N/A = Not Applicable

Job Competency Categories:
A = Communication Skills
B = Teaching Skills
C = Organizational Skills
D = Knowledge
E = Interpersonal Skills
F = Other

Job Competencies after Training and Rating by Importance.
Please circle each job competency according to importance by circling one number in column D (see rating at left bottom of page).
Please write letter of category in column E (see categories at right bottom page).

A	B	C	D	E
Job Competency after Training	Rank	Mean Score	Your Rating of the Job Competency 5 4 3 2 1 N/A	Categorize the Job Competency
Ability and willingness to accept directions and suggestions from supervisor			5 4 3 2 1 N/A	
Decide when to conclude a teaching session and graduate learner based on learners capability			5 4 3 2 1 N/A	
			5 4 3 2 1 N/A	
			5 4 3 2 1 N/A	
			5 4 3 2 1 N/A	

If some competencies are missing, please include them and give a rating and a category.

The Rating Scale is:
5 = Very Important
4 = Important
3 = Moderately Important
2 = Slightly Important
1 = Not Important
N/A = Not Applicable

Job Competency Categories:
A = Communication Skills
B = Teaching Skills
C = Organizational Skills
D = Knowledge
E = Interpersonal Skills
F = Other

APPENDIX P

COVER LETTER: DELPHI ROUND 3

OSU

Department of Nutritional Sciences
425 Human Environmental Sciences
Stillwater, Oklahoma 74078-6141
405-744-5040, FAX 405-744-7113
Email nutrisci-H@okway.okstate.edu
http://www.okstate.edu/hes/nsci/nutsci.html

M E M O R A N D U M

Thursday June 18, 1998

Dear Dr./Ms.   :

We appreciate the information you have given us and the time and effort you have contributed while completing the Delphi Round 1 and 2 surveys. We have again compiled all of the responses and have enclosed the final Delphi Round 3 survey.

The purpose of the Delphi Round 3 survey is to provide you two opportunities.

Step 1
1. One objective is to bring about a group agreement on the characteristics necessary for EFNEP paraprofessionals. The characteristics are ranked according to the mean rating each item received from Delphi Round 2. Review the ranking of the characteristics and rate according to how important you feel each attribute or competency is for job success of an EFNEP paraprofessional. It is important that you consider carefully whether a listed <u>personal attribute</u> or <u>job competency</u> is actually such a characteristic.

2. We have taken the liberty to list separately the characteristics that are requirements of employment and do not match the definition of personal attribute or competency. If you still feel they need to be included as an attribute or competency please indicate so. The characteristics listed that are requirements of employment are: <u>ability to read map, driving car skills, education competence/qualification, social security card, self-supporting and previous work experience.</u>

Step 2
3. The second objective is to categorize all the job competencies.

Again it is vital that you respond to the third and final survey in order to come to agreement on the responses from Delphi Round 2.

Please complete the survey and return it in the enclosed postage paid self-addressed envelope by Thursday July 2nd, 1998. You will be sent the results of this study.

Bringing Dreams to Life

the Campaign for OSU

Sincerely yours,

Kathryn S. Keim, Ph.D., RD, LD
Asst. Professor, Nutritional
Sciences
kkathry@okway.okstate.edu

Glenna Williams, EdD
State EFNEP Coordinator

Betty Wakou
MS Graduate Student
Fulbright Grantee

The definitions used in the Delphi Study are listed below:

- **Personal attributes** may include values, beliefs. attitudes, interests, or behaviors an EFNEP paraprofessionals already has before being hired.

- **Job competencies** may relate to knowledge and skills necessary for a paraprofessional to have before being hired, and after completing an orientation in-service and before working with EFNEP participants.

Step 1. <u>Rating the characteristics</u>

Please consider carefully whether a particular characteristic listed on the Round 3 survey is an **attribute** or **job competency**.

Please proceed to complete **Delphi Questionnaire Round 3 enclosures.**

        Enclosure 1: Personal Attributes and Rating by Importance.
        Enclosure 2: Job Competencies Prior to Hire and Rating by Importance.
        Enclosure 3: Job Competencies after Training and Rating by Importance.

Step 2. <u>Categorizing the job competency characteristics</u>

Write the letter of the category in column E for each job competency characteristic.

Example to complete Step 2

Job Competencies categories are:

A = Communication Skills
B = Teaching Skills
C = Organizational Skills
D = Knowledge
E = Interpersonal Skills
F = Other

Job Competencies after training.

A	B	C	D	E
Job Competency after Training	**Rank**	**Mean Score**	**Your Rating of the Job Competency** **5 4 3 2 1 N/A**	**Categorize the Job Competency**
Ability to work in the library			5 4 3 2 1 N/A	C
Ability to speak in public			5 4 3 2 1 N/A	B

APPENDIX Q

REMINDER NOTE: DELPHI ROUND 3

Dear Delphi Study participant:

In the past few weeks you should have received a survey in the mail from the Nutritional Sciences Dept., Oklahoma State University concerning personal attributes and job competencies of EFNEP paraprofessionals.

If you have returned your survey already, we thank you for your cooperation. If you have not, we urge you to take a few moments to complete the survey and return it by July 21, 1998. **Your response is vital.** If you have questions, please contact Kathy Keim at 405-744-8293.

VITA

Betty Ann Namarome Wakou

Candidate for the Degree of

Master of Science

Thesis : PERSONAL ATTRIBUTES AND JOB COMPETENCIES IMPORTANT FOR JOB SUCCESS OF EFNEP PARAPROFESSIONALS: A DELPHI STUDY

Major Field: Nutritional Sciences

Biographical:

Personal Data: Born in Mbale, Uganda (E. Africa), the daughter of Rev. Jonah and Dorothy Wegoye. Married to Nicholas Wakou with two daughters and a son.

Education: Graduated from Tororo Girls High School, Tororo, Uganda in 1982; received a Diploma in Education (with Home Economics and Biology) and a Bachelor of Education (with Home Economics) from Makerere University, in Kampala, 1984 and 1992, respectively. Completed the requirements for the Master of Science Degree with a major in Nutritional Science at Oklahoma State University in December, 1998.

Professional Experience: Teacher, Mt. St. Mary's Namagunga Secondary School, 1984 to 1989; Assistant lecturer, Institute of Teacher Education, Kyambogo, 1992 to 1996. Uganda National Examinations Board Examiner, 1995 to 1996; Graduate Teaching and Research Assistant, Department of Nutritional Science, Oklahoma State University, Summer and Fall, 1998.

Professional Memberships: Member of the African Home Economics Association, Uganda Home Economics Association, Uganda Home Economics Teachers' Association, Institute of Teacher Education Staff Association.