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Identification of the workplace basic skills necessary for effective job performance by entry-level workers in small businesses in Oklahoma.

Gerald W. Harris

Abstract: A modified Delphi technique was used to identify the workplace basic skills needed by employees in small businesses employing 50 or fewer workers. Employers rated a list of 36 skills from the SCANS Report, in importance, on a scale from 1-little importance to 10-extreme importance. The ratings along with written comments and verbal responses to preplanned questions in phone interviews were used to determine if the SCANS skills could be validated for small businesses in Oklahoma.

PERSPECTIVE

The Secretary's Commission on Achieving Necessary Skills (SCANS) issued a report in 1991 that identified two conditions that have changed people's entry into the world of work: The globalization of commerce and industry and the explosive growth of technology on the job (What work requires of schools: A SCANS report for America 2000, 1991). Carnevale, Gainer, and Meltzer (1988) reported in the study, Workplace Basics: The Skills Employers Want, that the combination of demographic forces, and technical forces are driving the nation toward a human capital deficit among both new and experienced workers. Wirth (1992) marked momentous developments that have contributed to the changes occurring in work and education: The electronic computer revolution and the emergence of a competitive global market. According to Gray (1991), our nation's small businesses will have to be successful in order for the United States to remain economically competitive. Because small businesses have the flexibility required to adapt to changing market conditions, they are critical to economic growth in the global competition. The review of literature revealed numerous reports issued from commissions, committees, and panels of experts, all of which acknowledged that the changing nature of work in the U.S. is dictating a new workplace requiring a changing workforce to demonstrate a broad range of skills that allows the flexibility to do a number of tasks that cut across traditional occupational lines. Since small businesses, who require workers with flexible, multiple skills, are creating 40% of all new jobs (Wirth, 1992), determining the workplace skills necessary for successful job experiences by entry-level workers in small businesses takes on added importance.

Bailey (1991) stated that the interaction of the content and organization of work with the content of schooling will contribute to our understanding whether the educational system is effective in preparing the workforce and how that effectiveness might be improved.

INTRODUCTION

The nation=s workplace is experiencing radical change; this changing and evolving workplace is dictating changes in the skills required of the workforce. Much of the recent literature that describes the skills needed for employment addresses a high performance workplace which encompasses a broad spectrum of workers in various sizes and types of businesses. Since there are insufficient data regarding the job-related basic skills needed by entry-level workers in small businesses, the workplace basic skills deemed essential by small business owners/managers need to be identified. Thus adult education institutions can emphasize the needed skills in training programs and small businesses can retain the workforce required to be successful. Hence, the purpose of this research was to determine the perceptions of the workplace basic skills needed by entry-level workers by surveying small business employers in Oklahoma. This study was expected to answer the following research questions:

1. Are the workplace basic skills described in the SCANS Report perceived as necessary for effective job performance (by entry-level workers in small businesses in Oklahoma)?
2. How do the small business employers rank the workplace skills proposed by the SCANS Report in order of importance?
3. What is the extent of the agreement among small business employers in the various types of businesses of the importance of the skills needed by entry-level employees?
4. What is the extent of the agreement among small business employers in the various sizes of communities of the importance of the skills needed by entry-level employees?

METHOD OF RESEARCH

This research identified the workplace basic skills needed by entry-level workers in small businesses. By drawing upon the experience of small business owners and managers, the information obtained was utilized to clarify the employers= perceptions of the necessary skills. An attempt was made to conduct the research in a manner that allowed for reading and understanding by every person. The scope of this study included businesses (employing 50 or fewer workers) located in all geographic quadrants of the state of Oklahoma. In selecting participants for this study, consideration was given to the type of business, the number of employees, and the size of community where the business was located. The 40 participants in this study were limited to the owners or managers of the businesses and were recommended by personnel at area vocational-technical schools. The results were not generalized to businesses outside of the study, and the researcher=s discretion was used in grouping participants according to the type of business.

The workplace basic skills identified by the SCANS Report were assumed to be important as a starting point to develop an instrument to be used in this research study. This Commission was formed by the U.S. Department of Labor to determine the know-how needed in the workplace. The workplace basic skills, as used in this study, included the basic skills of (but not limited to)

reading, oral and written communications, computation, and various other general skills needed to perform tasks in a job as differentiated from occupationally specific skills needed to perform tasks for particular jobs. The SCANS Report detailed a list of 36 skills centered around the following: (1) Workplace Competencies-resources, interpersonal skills, information, systems, and technology. (2) Foundation Skills-basic skills, thinking skills, and personal qualities (Learning a living: A blueprint for high performance, 1992).

The Delphi technique has been used as a research method in varied situations demonstrating its flexibility in allowing data to be gathered and providing an appropriate method to reach consensus of opinion from experts; Harritt (1987) used a modified Delphi technique to obtain perceptions of the importance of alternative approaches to agriculture. The design of this research study involving workplace basic skills used a modified Delphi technique as a method of collecting data and as a means of securing expert convergent opinion without bringing the participants together. The modification consisted of using the 36 generic workplace skills identified by the SCANS Report to formulate the initial questionnaire mailed to study participants. Participants were then given the opportunity to suggest skills to be added to the list to be used in the next round of data collection. In the first round, participants rated the importance of each skill needed by an entry-level worker on a Likert type scale ranging from 1-little importance to 10-extreme importance. In the second round, participants were asked to consider the average group rating from the previous round before rating each skill again. A third round of data collection involved phone interviews with various participants to clarify comments made on the questionnaires and to accumulate reasons why individual ratings differed significantly from the group average. This qualitative data provided in-depth, comprehensive information to supplement the quantitative data gathered with the ratings. According to Key (1993), this method of obtaining information in a natural setting and using it to describe the variables under consideration seeks a wide understanding of the entire situation.

DATA ANALYSIS

The data collected from the two rounds of questionnaires were analyzed using descriptive statistics. The mean, the range, the variance, and the standard deviation were computed from the ratings for each of the 36 workplace skills and then analyzed. From each round, tables were constructed showing the mean ratings of the 36 skills ranked from the most important to the least important. Tables were also constructed to illustrate frequencies and percentages describing the participants= backgrounds and characteristics of the businesses. Qualitative data gathered, including background information, written comments on each skill rating, and comments solicited from phone interviews were analyzed considering each of the four research questions in regard to the variables of type of business, years in operation, number of employees, size of community where the business was located, age of the participant, and formal education level of the participant.

The Kendall Coefficient of Concordance (W) was used to determine the extent of the agreement among the small business employers of their ratings of the workplace skills. Siegel (1956) stated that the Kendall (W) measures the extent of agreement among several judges, or the association

among three or more variables. To provide a basis for statistical analysis, types of businesses were grouped according to the end product of each business. Each group's ratings were used to find the mean of each of the 36 skills and then the skills were ranked. The sets of ranks were then used with the Kendall (W) to determine the extent of agreement among the groups. The Kendall (W) was also used to analyze the data in relation to the size of community where the business was located. Ratings of employers in each of four categories of size of community were grouped and the mean determined on each of the 36 skills. The means were then ranked for each category of size of community and the Kendall (W) was used to determine the extent of agreement between groups. To test the significance of the Kendall (W) statistic, a formula was used to calculate a Chi Square value. By referring to a table of critical values of Chi Square the probability associated with the occurrence of the null hypotheses was determined. If the Chi Square value is such that it would occur very infrequently by chance, then the Kendall (W) value is assumed to be a product of a non-chance factor and the null hypotheses are rejected (Popham, 1967).

FINDINGS AND CONCLUSIONS

Based on an analysis of the findings of this study, the following conclusions were made:

- (1) Based on the finding that 31 of the 36 skills (86.1%) received mean ratings within the interval of 6.0 to 10.0 on a continuum of importance (1-little importance to 10-extreme importance), it was concluded that small business employers participating in this research study perceived the skills from the SCANS Report as necessary for entry-level workers. Although the other five skills ranked lower, they received mean ratings which substantiated a moderate degree of importance.
- (2) Based on the findings of the seven highest rated skills, it was concluded that the seven most important skills for entry-level workers were AIntegrity/Honesty,@ AListening,@ AServes Clients/Customers,@ AResponsibility,@ AParticipates as a Member of a Team,@ AEsteem,@ and ASociability.@
- (3) Based on the findings that no additional skills were generated by participants, it was concluded that the 36 SCANS skills were indicative of the skills needed by entry-level workers in the small businesses that participated in this study.
- (4) Based on the findings that the communication related skills received high ratings of importance, it was concluded that the small business employers valued the ability to communicate effectively by entry-level employees.
- (5) Based on the findings that workplace skills related to personal qualities of entry-level workers received high ratings of importance, it was concluded that small business owners/managers value employees who demonstrate a desirable work ethic. After analysis of comments written on the questionnaire and verbal responses from phone interviews, it was noted that work ethic, as verbalized by the participants, actually consisted of several skills listed on the questionnaire dealing with personal qualities of workers.

(6) Based on the finding that technology related skills were ranked in the bottom 25 percent of the 36 skills that were rated, it was concluded that technology related skills were perceived by the small business employers to be the least important skills of those listed in the SCANS Report.

(7) Based on the finding that comments by the participants indicated an expectation for entry-level workers to perform many different duties and be versatile with more skills, it was concluded that small business owners/managers perceived that businesses with fewer employees need workers to perform numerous tasks and be multi-skilled.

IMPLICATIONS AND SIGNIFICANCE TO ADULT EDUCATION

Since the SCANS committee spent 12 months talking to business owners, public employees, union officials, managers, and to workers themselves, asking what skills were needed to be successful on the job, and these 36 skills were validated by this research, it would be prudent for adult education institutions to insure that these skills are integrated into curriculum areas to facilitate the preparation of adults for the workforce. However, it is recommended that adult education institutions consider needs assessments of small businesses in their service delivery area in order to verify employers' perceptions of needed skills in the local economy.

Employers in this study expressed concerns that fewer numbers of employees in businesses dictated a need for versatile workers with flexible skills which implies that adult education implement education/training that addresses the multi-skilling of workers. Strategies should be considered to balance the emphasis in education/training between foundation skills (including basic skills, thinking skills, and personal quality skills), workplace competencies, and specific skill training unique to a certain type of business. Emphasizing the skills employers require and the skills employees need on the job not only enhances a worker's abilities, but also assists in meeting the workforce needs of small businesses. Since the work ethic of employees was a strong factor cited by the employers in this research, emphasis in adult education should be placed on developing the desirable personal qualities which are associated with this work ethic.

The literature suggests that technology related skills are increasingly important in today's changing workplace, yet in this study the technology related skills were ranked in the bottom 25% of the 36 SCANS skills in importance. Further research should be conducted on the perceptions of small business employers concerning the importance of technology related skills.

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